









NORTHERN RIVER BASINS STUDY PROJECT REPORT NO. 115 AN ASSESSMENT OF **DRINKING WATER QUALITY** FOR ALBERTA COMMUNITIES IN THE PEACE, ATHABASCA AND **SLAVE RIVER BASINS**





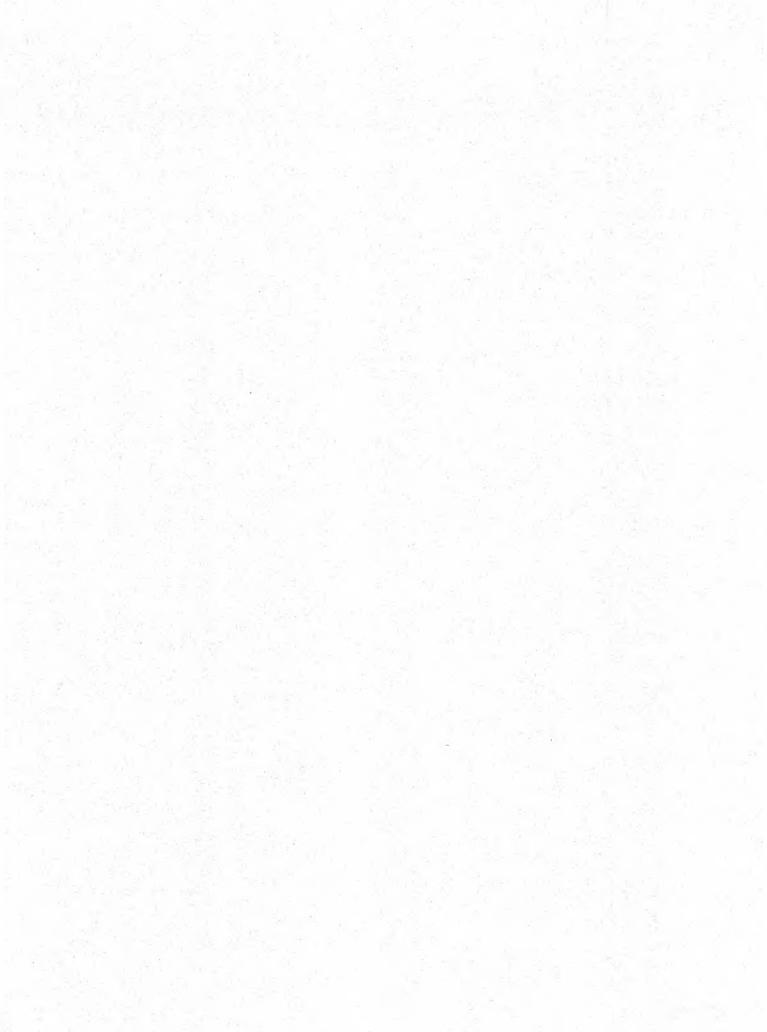








TD 227 . A3 . P955 1996



88021=97 .b 110324

Prepared for the Northern River Basins Study under Project 4422-D1

by

D. S. Prince, S. J. Stanley and D. W. Smith Department of Civil and Environmental Engineering University of Alberta

NORTHERN RIVER BASINS STUDY PROJECT REPORT NO. 115 AN ASSESSMENT OF DRINKING WATER QUALITY FOR ALBERTA COMMUNITIES IN THE PEACE, ATHABASCA AND SLAVE RIVER BASINS

> Published by the Northern River Basins Study Edmonton, Alberta March, 1997

ATHABASCA UNIVERSITY JUN 2 1 2012 LIBRARY

CANADIAN CATALOGUING IN PUBLICATION DATA

Prince Dennis Scott

An assessment of drinking water quality for Alberta communities in the Peace, Athabasca and Slave River Basins

(Northern River Basins Study project report, ISSN 1192-3571; no. 115) Includes bibliographical references ISBN 0-662-24643-8 Cat. no. R71-49/3-115E

- 1. Drinking water -- Alberta -- Athabasca River Watershed.
- 2. Drinking water -- Peace River Watershed (B.C. and Alta.)
- 3. Drinking water -- Slave River Watershed (Alta. and N.W.T.)
- 4. Water quality -- Alberta -- Athabasca River Watershed.
- 5. Water quality -- Peace River Watershed (B.C. and Alta.)
- 6. Water quality -- Slave River Watershed (Alta. and N.W.T.)
- I. Stanley, Stephen J. (Stephen John), 1962-II. Smith, D.W. (Daniel Walter), 1944-
- III. Northern River Basins Study (Canada)
- IV. Title.
- V. Series.

TD226.P74 1997 363.6'1'0971231 C96-980218-8

Copyright © 1997 by the Northern River Basins Study.

All rights reserved. Permission is granted to reproduce all or any portion of this publication provided the reproduction includes a proper acknowledgement of the Study and a proper credit to the authors. The reproduction must be presented within its proper context and must not be used for profit. The views expressed in this publication are solely those of the authors.

PREFACE:

The Northern River Basins Study was initiated through the "Canada-Alberta-Northwest Territories Agreement Respecting the Peace-Athabasca-Slave River Basin Study, Phase II - Technical Studies" which was signed September 27, 1991. The purpose of the Study is to understand and characterize the cumulative effects of development on the water and aquatic environment of the Study Area by coordinating with existing programs and undertaking appropriate new technical studies.

This publication reports the method and findings of particular work conducted as part of the Northern River Basins Study. As such, the work was governed by a specific terms of reference and is expected to contribute information about the Study Area within the context of the overall study as described by the Study Final Report. This report has been reviewed by the Study Science Advisory Committee in regards to scientific content and has been approved by the Study Board of Directors for public release.

It is explicit in the objectives of the Study to report the results of technical work regularly to the public. This objective is served by distributing project reports to an extensive network of libraries, agencies, organizations and interested individuals and by granting universal permission to reproduce the material.

This report contains referenced data obtained from sources external to the Northern River Basins Study. Individuals interested in using external data must obtain permission to do so from the donor agency.

NORTHERN RIVER BASINS STUDY PROJECT REPORT RELEASE FORM

This publication may be cited as:

Prince, D. S., Stanley, S. J. and Smith, D. W. 1997. Northern River Basins Study Project Report No. 115, An Assessment of Drinking Water Quality for Alberta Communities in the Peace. Athabasca and Slave River Basins. Northern River Basins Study, Edmonton, Alberta.

Whereas the above publication is the result of a project conducted under the Northern River Basins Study and the terms of reference for that project are deemed to be fulfilled,

IT IS THEREFORE REQUESTED BY THE STUDY OFFICE THAT:

this publication be subjected to proper and responsible review and be considered for release to the public.

(Dr. Fred J. Wrona, Science Director)

16 May 96 (Date)

Whereas it is an explicit term of reference of the Science Advisory Committee "to review, for scientific content, material for publication by the Board",

IT IS HERE ADVISED BY THE SCIENCE ADVISORY COMMITTEE THAT:

this publication has been reviewed for scientific content and that the scientific practices represented in the report are acceptable given the specific purposes of the project and subject to the field conditions encountered.

SUPPLEMENTAL COMMENTARY HAS BEEN ADDED TO THIS PUBLICATION: [] Yes [] No

illaupm

(Dr. P. A. Larkin, Ph.D., Chair)

Whereas the Study Board is satisfied that this publication has been reviewed for scientific content and for immediate health implications,

IT IS HERE APPROVED BY THE BOARD OF DIRECTORS THAT;

this publication be released to the public, and that this publication be designated for: [] STANDARD AVAILABILITY [] EXPANDED AVAILABILITY

le (Lucille Partington, Co-chair)

(Date) (Date)

Robert McLeod, Co-chair)

AN ASSESSMENT OF DRINKING WATER QUALITY FOR ALBERTA COMMUNITIES IN THE PEACE, ATHABASCA AND SLAVE RIVER BASINS

STUDY PERSPECTIVE

Water is essential to life and it can be an important vector for conveying contaminants into humans. To assist the Northern River Basins Study (NRBS) Board in making recommendations about the safety of drinking water supplies, the Drinking Water component designed a five-step program of studies. The steps included:

- synthesis of existing data on water use and water quality;
- investigation of odour in water and tainting in fish;
- review of health records for water borne diseases;
- 4. assessment of conventionally treated and non-conventional water; and
- 5. preparation of a synthesis report.

Related Study Questions

- 2) What is the current state of water quality in the Peace, Athabasca and Slave River basins, including the Peace-Athabasca Delta?
- 8) Recognizing that people drink water and eat fish from these river systems, what is the current concentration of contaminants in water and edible fish tissue and how are these levels changing through time and by location?

This project report addresses the conventional component of step four. Based on the results, a review and analysis of existing Alberta data on drinking water quality and treatment facilities (NRBS Project Report Number 55), 38 water treatment facilities were visited to assess the treatment processes used, to collect water samples from the raw, treated and distributed water, and to assess the operation and maintenance of the treatment facilities. To obtain a good cross section of facilities in the basin, the sites were selected based on the raw water source, treatment processes used, size of facility and treated water quality.

Results indicated that smaller facilities (hamlets and water points) tended to produce poorer water quality than larger facilities based on microbiological quality, turbidity and historical trihalomethane (THM) data. Many of the smaller communities showed higher than acceptable levels of indicator organisms and turbidity in the treated water. Observations from the site visits indicate that many of the drinking water difficulties noted with small facilities are related to operation practices. Remedial action is required by many smaller communities in the Northern River Basin Study area to bring the drinking water into compliance with the current drinking water standards.

Information from this report will be combined with information collected in "A Review and Analysis of Existing Alberta Data on Drinking Water Quality and Treatment Facilities for the Northern River Basin Study," (NRBS Project Report Number 55) to provide an overview of drinking water quality in the Northern River Basins. Together with the other Drinking Water projects, these studies will form the basis for the Drinking Water Synthesis report (NRBS Synthesis Report Number 9). Information from this project is also being made available to the Human Health Monitoring Program that is examining health issues in Northern Alberta.

REPORT SUMMARY

The World Health Organization (WHO, 1993) states that:

"Water is essential to sustain life and a satisfactory supply must be made to achieve a drinking water quality as high as practicable"

The primary purpose of drinking water treatment is the protection of public health. The quantity of drinking water and the efficiency of treatment can be assessed through comparison to guidelines. In Canada, the applicable document is the Guidelines for Canadian Drinking Water Quality (1993) which has been adopted as minimum drinking water quality for licensed facilities in the province of Alberta. Most other developed countries have similar guidelines or regulations. The World Health Organization has also developed "Guidelines for Drinking Water Quality" (WHO, 1993) with a primary aim of protecting public health.

To assess drinking water quality in the Northern River Basin Study area results obtained from existing information and that obtained during this study were compared to both sets of guidelines discussed above. Of the sites investigated many were licensed facilities by Alberta Environmental Protection (AEP) and are required to meet as a minimum the Guidelines for Canadian Drinking Water. Other sites although not licensed by AEP still supply water to consumers, who tend to assure the water is of potable quality. As stated in the guidelines for Canadian Drinking Water:

"The guidelines and recommendations listed herein are intended to apply to all drinking water supplies, public and private. ... Judicious use of the guidelines will result in the provision of drinking water which is both wholesome and protective of public health."

As a result both licensed and unlicensed facilities were assessed based on comparison to guidelines.

Based on site visits to 38 facilities, water quality analyses completed for the site visit and analysis of existing water quality information a number of conclusions can be made on the drinking water quality in the Northern River Basin Study area.

- 1. Small facilities in the study area tend to produce poorer water quality than larger facilities. This was found to be the case in terms of microbiological quality, turbidity (a good overall measure of treatment performance), and historical THM data.
- 2. As stated by the World Health Organization (1993):

"Infectious diseases caused by pathogenic bacteria, viruses and protozoa or by parasites are the most common and wide spread health risk associated with drinking water."

As it is not possible or feasible to test for all pathogenic organisms, microbiological quality of drinking water is assessed based on indicator organisms. If these indicator organisms are present in the finished drinking water it then must be assumed that pathogens could also be present. The most common microbiological indicator used in

drinking water is the coliform group of organisms. Due to difficulties in sampling. transporting and analysis a single coliform positive sample may not truly reflect the microbial quality of the drinking water. As a result the Guidelines for Canadian Drinking Water Quality (GCDWQ, 1993) state that not more than 10% of samples taken should be coliform positive. The WHO (1993) uses a more stringent guideline of not more than 5% be coliform positive. As the number of samples in small facilities are not great the 10% value was used in this study to assess microbial water quality to avoid unwarranted concerns to be raised for a facility based on a couple of bad samples. Analysis of a large database obtained from AEP of coliform results from communities in the Northern River Basin Study area was completed. This database consisted of roughly 270,00 total and 270,000 fecal coliform analyzes taken over the last seven years. Of the smallest facilities, watering points, 30% of them exceeded the 10% coliform positive guideline. If one includes samples which are considered poor by the GCDWQ (1993) this increases to 45%. Of particular concern was the finding that a number of facilities had high coliform positive percentages for all of the seven years the data was analyzed.

The occurrence of fecal streptococci, another indicator of fecal contamination, in 6 of the 28 surface water sites visited adds additional concern on the microbiological quality of water in many communities in the NRBS area.

3. It was also found that small facilities in the study area tended to have higher turbidity than larger communities. Although turbidity is only a measure of the clarity of water, high turbidity has been shown to negatively impact the performance of disinfection. In addition the most effective method of removal of protozoan cysts such as Giardia and Cryptospordium is through physical-chemical treatment processes for which there performance can be related to turbidity removal. The importance of turbidity as a parameter to indicate microbial quality is evident in the USEPA using turbidity to justify pathogen removal credits in their most recent standard. In these standards, maximum credits are earned with turbidity of ≤ 0.5 NTU 95% of the time.

Results from existing data indicated that surface water facilities serving populations less than 500 have a significantly higher turbidity than facilities serving populations greater than 500. Because these samples were obtained from the distribution system and the small number of samples collected, compliance with guidelines could not be assessed.

During the site visits 6 of the 38 sites had turbidity greater than 1 NTU, which in included the two watering points visited. These grab samples cannot be compared to standards which specify the maximum average turbidity 95% of the time must be below 1 NTU but they indicate that there may be problems at these sites.

4. Chemical parameters associated with raw water quality were found to be below guideline values based both on existing data and site visit data. However, for disinfection by-products (THMs) which are produced during treatment, the site visit

data found, that 60% (12 0f 21) of the surface water sites exceeded the guideline value of 100ug/L for THM. Analysis of existing data for THMs was complicated by the fact that most samples taken occurred under the old value of 350ug/L. The analysis did show however, if levels remained unchanged, 20 of the 62 sites analyzed by AEP would have difficulty meeting the lower standard value that is now in place.

- 5. Observation from site visits tended to indicate that much of the difficulties associated with small facilities may be related to operation of the facilities. Generally this can be related to the allotted time the operator is given to operate the facility, with smaller facilities having less time than larger facilities. The attitude of the people in decision making positions related to water treatment may also be an important factor. Operation performance may also be related to training as in larger facilities the majority or sole duty of the operator is to run the facility. As a result the opportunity for these operators to receive training is much greater. In small facilities, the operation of the treatment facility may be one of numerous tasks the operator may have to do. As many other tasks may be part of their daily routine the opportunity and incentive for these operators for training tends to be less.
- 6. Based on results of this study, remedial action is required in many small communities in the Northern River Basin Study area to bring the drinking water into compliance with current standards which are based on the protection of public health. Many communities are currently drinking water that may not meet Guidelines for Canadian Drinking Water Quality. Areas of concern are both the microbiological quality of the water and high levels of disinfection by-products. Of these the microbiological quality of the drinking water is by far of greatest concern. Many of the small communities showed higher than acceptable levels of indicator organisms as well as high turbidity. The occurrence of both would indicate that if pathogenic organisms are present in the raw water source they probably will not be removed by the treatment system.

In the time needed for remedial actions to rectify the problems it is of utmost importance that consumers of water be notified immediately as to the status of their drinking water with respect to standards along with recommendations of prudent courses of action available to them. In the case of microbiological problems that are not rectified consumers should be advised to boil their drinking water as recommended in Guidelines for Canadian Drinking Water Quality (1993) and World Health Organization (1993).

TABLE OF CONTENTS

REPORT SUMMAR	<u>I</u>
TABLE OF CONTE	NTSIV
LIST OF TABLES	<u>VII</u>
LIST OF FIGURES	
1.0 INTRODUCTIO	N1
2.0 SELECTION OF	SITES2
2.1 SELECTI	ON CRITERION2
2.2 INFORM	ATION FROM EXISTING DATA2
2.3 SELECTE	ED SITES
3.0 SUMMARY OF	INDIVIDUAL SITE VISITS3
3.1 SITE VIS	IT PROTOCOLS AND PROCEDURES
3.2 SITE VIS	IT SUMMARIES7
3.2.1	Athabasca7
3.2.2	Barrhead7
3.2.3	Berwyn8
3.2.4	Caddote Lake
3.2.5	Colinton8
3.2.6	Cynthia9
3.2.7	Desmarais9
3.2.8	Edson9
3.2.9	Fairview9
3.2.10	Falher10
3.2.11	Fort Chipewyan10
3.2.12	Fort McMurray10
3.2.13	Fort McKay11
	Fort Vermillion11
3.2.15	Fox Creek11
3.2.16	Gift Lake11
3.2.17	Grande Cache11
3.2.18	Grande Prairie12
3.2.19	Grimshaw

3.2.20	Highlevel	12
3.2.21	High Prairie	12
3.2.22	Hinton	12
3.2.23	Janvier	12
3.2.24	Jasper	13
3.2.25	Lac La Biche	13
3.2.26	Manning	13
3.2.27	Peace River	14
3.2.28	Peerless Lake	14
3.2.29	Sexsmith	14
	Slave Lake	
3.2.31	Smith	14
	Swan Hills	
	Tangent	
	Teepee Creek	
	Wandering River	
	Westlock	
	Whitecourt	
	Woking	
3.2.39	Worsley	16
	DRINKING WATER OUALITY DATA	
COLLECTED FRO	M SITE VISITS	17
4.1 TURBID	ITY DATA	17
4.2 MICROE	BIAL DATA	18
4.3 THM DA	TA	20
4.4 SUMMA	RY OF TREATMENT PRACTICES	21
5.0 SUMMARY OF	EXISTING DRINKING WATER OUALITY DATA	21
5.1 SUMMA	RY OF EXISTING THM DATA	22
5.2 SUMMA	RY OF EXISTING TURBIDITY DATA	22
5.3 SUMMA	RY OF EXISTING MICROBIAL DATA	23
6.0 CORRELATION	N OF SITE VISIT DATA WITH EXISTING DATA	24
7.0 CONCLUSIONS		25
2 0 DEFEDENCES		

.

APPENDICES	114	ļ
		1

LIST OF TABLES

TABLE 1: SITES SELECTED FOR SITE VISITS
TABLE 2: SUMMARY OF TREATMENT PROCESSES FOR SELECTED SITES
TABLE 3 : SUMMARY OF SITE VISITS
TABLE 4 : SUMMARY OF TURBIDITY DATA FROM SITE VISITS
TABLE 5: SUMMARY OF MICROBIAL DATA FROM SITE VISITS
TABLE 6: SUMMARY OF THM DATA FROM SITE VISITS
TABLE 7: SUMMARY OF HISTORICAL THM DATA 81
TABLE 8: SUMMARY OF TURBIDITY DATA FOR THETREATED WATER SURVEY FOR THE NRBS AREA82
TABLE 9: SUMMARY OF MICROBIAL SAMPLING IN NRBSAREA, 1988-1994
TABLE 10:SUMMARY OF MICROBIAL SAMPLING IN ALBERTA, 1988-1994
TABLE 11: SUMMARY OF FACILITIES WHERE GREATERTHAN 10% OF SAMPLES WERE COLIFORM POSITIVE
TABLE 12: SUMMARY OF OTHER FACILITIES GREATERTHAN 10% OF SAMPLES WERE COLIFORM POSITIVE
TABLE 13: SUMMARY OF FACILITIES WHERE GREATERTHAN 10% OF SAMPLES WERE POOR
TABLE 14: SUMMARY OF OTHER FACILITIES WHEREGREATER THAN 10% OF SAMPLES WERE POOR
TABLE 15: LISTING OF ALL NRBS FACILITIES WITH ANNUAL MICROBIAL SAMPLING SUMMARIES

LIST OF FIGURES

FIGURE 1: HISTORICAL SITE AVERAGE CHLOROFORM DATA (FROM PRINCE <i>ET AL.</i> 1995)	
FIGURE 2: FREQUENCY OF COLIFORM POSITIVE WATER SAMPLES, ALL NRBS SITES (1988-1994)	
FIGURE 3: FREQUENCY OF COLIFORM POSITIVE WATER SAMPLES, ALL ALBERTA SITES (1988-1994)	
FIGURE 4: FREQUENCY OF POOR WATER SAMPLES, ALL	
NRBS SITES (1988-1994) FIGURE 5: FREQUENCY OF POOR WATER SAMPLES, ALL	
ALBERTA SITES (1988-1994)	

1.0 INTRODUCTION

The task of the Drinking Water Component of the Northern River Basin Study (NRBS) is to assess drinking water quality in the NRBS area. This report is one of a series of studies which have been undertaken which will help to assess the drinking water quality. Presented in this report are results of site visits to 38 water treatment facilities located in the NRBS area. In addition further analysis of existing drinking water quality data beyond that completed in the report entitled "Review and Synthesis of Existing Information on Consumptive Use of Drinking Water and Available Drinking Water Quality Data" (Prince, *el. al.*, 1995) is also presented. Most of the additional information involves analysis of microbial data which was not complete earlier as well as reanalysis of previously presented data to determine if trends in data from the site visits were evident in the larger data base.

The quality of drinking water is dependent on the quality of raw water used, treatment processes used to treat the water and the efficiency of the treatment processes. The last factor is highly dependent on the operator and operation of the facility. As a result the primary objective of the site visits were to:

- 1. Assess treatment processes used in the facilities in the NRBS area. This information was compared to existing information which was obtained from Alberta Environmenta Protection (AEP) facility survey which was summarized in the previous Prince, *et. al.* (1995) report.
- 2. Collect water samples from the raw, treated and distributed water to provide an independent assessment of water quality.
- 3. Assess operation and maintenance of treatment facilities as both can significantly impact treated water quality.

Ideally all 180 drinking water facilities in the NRBS could have been visited. However given constraints in time and budget this was not possible. A representative number of sites, 38 in total were selected and visited. Based on existing data on raw water source, treatment process used, size of facility and treated water quality, site were selected such that they represent an overall cross-section of the types of facilities found in the NRBS area. The criteria used in the selection of the sites is discussed in this report.

Based on the initial results from the site visits it was found that there appeared to be a trend that smaller facilities had a more difficult time producing a high quality drinking water in comparison to larger facilities. To investigate this further existing water quality data which had been previously analyzed was reanalyzed to specifically assess trends based on size of the facility. However this data was only for chemical parameters and a few bulk water quality parameters such as turbidity. Although analysis of this data showed similar trends in comparing smaller and larger facilities, other than turbidity and trihalomethans (THMs) all other parameters of health concern were well within drinking water guidelines. As outlined in Prince, *et. al.* 1995 the vast majority of drinking water facilities must be

considered of good quality in terms of their chemical quality. Generally, however the greatest risk to the consumer of drinking water can be related to the microbiological quality of the water (WHO, 1993). The previous report (Prince, et. al. 1995) did not assess microbiological quality of the facilities. A large data base (containing 270,000 samples) on microbial data was obtained from AEP and analyzed to assess trends in this data. As is discussed, similar trends were found in this analysis with smaller facilities tending to produce poorer quality drinking water than larger facilities. This report summarizes the selections of sites to be visited, results from the site visits as well as comparisons of results and trends in the results from the site visits to that found in the existing water quality information. Although some conclusions are made based on the results, the purpose of this report is to summarize the collected data in a format that will be usable in the overall assessment of drinking water quality in the NRBS area. This overall assessment will be completed as a synthesis document in the final year of the NRBS. Information from this report as well as others completed for the Drinking Water Component will be used in preparing the synthesis document.

2.0 SELECTION OF SITES

2.1 SELECTION CRITERION

As it was not possible to visit all facilities in the NRBS area, a number of sites were selected that would be representative of the types of water treatment facilities found in the NRBS area. In total 38 sites were selected out of approximately 180 facilities that are located in the study area. It was felt 38 sites were a large enough number to give accurate overview of the treatment facilities found in the NRBS area. Sites were selected based on factors such as treatment process used, size of facility, water source, location and historical water quality. Care was taken not to bias the results by choosing sites that represented both good and poor performance characteristics for the various treatment type categories. Details of the selection criterion are presented below. Data used in the selection process was obtained from information summarized in the previous report by Prince, *et. al.* (1995).

2.2 INFORMATION FROM EXISTING DATA

The use of historical effluent quality data in the selection of sites to visit was narrowed to five parameters of interest; total dissolved solids (TDS), pH, turbidity, total hardness, Langelier saturation index, and chloroform. In Appendix A, Table A-1 the data from the AEP's treated water survey for the NRBS facilities and the five parameters of interest are presented. The table lists the mean, upper and lower 95 percentile value, the number of samples greater than the method detection limit (MDL), the number of samples taken and the percentile of the facility within the set (surface or ground water source). The percentile of the facility indicates how the facility compares to other facilities of the same type. A low percentile indicates that the facilities average for that parameter is lower than most other facilities in that set while a high percentile indicates that the facility average is

higher than most in the set. A percentage of 50 indicates that the facility average is in the middle of the set. In selecting the group of sites to be visited, the investigators ensured that there was a good distribution of these percentiles.

Another database of drinking water quality data collected by AEP and stored in the NAQUADAT format was analyzed for four of the effluent quality parameters excluding chloroform. The results of the analysis are presented in Appendix A Table A-2 which contains the same format as the previous table. This data is particularly useful because it contains more information on raw water quality which helps in the selection of sites by ensuring that the sites are not all the worst or the best with respect to historical raw water quality.

The information on facilities population served and treatment processes use is shown in Appendix A Table A-3 which has been reprinted from an earlier drinking water component report (Prince, *et. al.* 1995). The information given in the three tables in appendix A represent the background information used in the selection process.

2.3 SELECTED SITES

Table 1 gives a list of the sites selected for the visits. As mentioned these were selected based on historical raw and treated water quality, treatment process used and population served. Table 2 presents a summary of treatment processes used at all facilities in the NRBS area as well as the treatment processes used at the selected sites. As indicated by the table, the distribution of treatment processes used at the selected sites are comparable. One significant deviation is the split between ground water and surface water sites. In the whole NRBS area about 43% are ground water facilities where only 25% of the selected sites have ground water source. This was purposely done as ground water normally has minimal treatment and it was felt the assessment of treatment performance for surface water sites was much more important as it has a greater impact on finished water quality.

3.0 SUMMARY OF INDIVIDUAL SITE VISITS

3.1 SITE VISIT PROTOCOLS AND PROCEDURES

The purpose of the site visit was to evaluate drinking water at the selected communities. To accomplish this goal information in the areas of water quality, plant operations, weekly sampling routines, chemical dosing and operating strategies was collected. A complete list of the type of information under these categories can be found by the categories in the Table 3. At some facilities not all the information was available. Table 3 contains a complete summary of information for each site visited.

A number of water quality parameters in Table 3 can be directly related to guidelines to assess quality. These include turbidity, chlorine residual, trihalomethanes (THM), total

and fecal coliforms and heterotrophic plate count. Details on these parameters and the related guidelines are discussed below. In addition other parameters measured include temperature, pH, conductivity, colour and ammonia. To assess taste and odour the site investigator provided an odour descriptions well as an odour intensity using procedures from Standard Methods, 1992. However this assessment must only be considered an indication of the odour as the result is based on a single investigator who visited the site rather than a complete panel as suggested in Standard Methods (1992).

In addition to the microbial parameters described above that relate directly to guidelines, additional microorganisms were numerated to give a better indication of microbial quality. These include Klebsiella, which have been associated with pulpmill effluents; fecal streptococcus, another indicator of fecal contamination; molds and yeasts, which have been related to taste and odour problems; and a series of corrosion organisms which relate to biofilm development in the distribution system.

Under the category of plant operations, the number of hours spent operating the plant was determined as well as the operator was asked about taste and odour problems throughout the year, as the assessment during the site visit only represents a single point in time.

At one time it was common to recycle backwash water to the front of the plant. However this practice has been linked to disease outbreaks due to both Giardia and Cryptospordium as filters are one of the most effective method to remove these protozoan cysts. Cysts removed during filtration will be concentrated in the backwash water and continued recycling of backwash water may result in overloading of the filtration and disinfection processes. As a result it was assessed whether the facilities recycled the backwash water.

Biofilms in the distribution system can cause a deterioration of the water quality. An effective means to try to control biofilm development is through a distribution system flushing program. Table 3 indicates if such a program exists in the community. The final information contained in the plant operation category is information on storage, flow and theoretical hydraulic detention time at the plant. The effectiveness of a disinfectant to inactivate microorganisms is dependent on the disinfectant dose and the contact time. The theoretical hydraulic detention time can give a rough estimate of whether there is sufficient contact time. It should be noted however that the actual detention time that can be determined only through tracer tests can vary substantially from the theoretical value.

The next category of information contained in Table 3 is on the sampling program of the facility. The sampling program is important both in terms of finish water quality and process control. The final category contained in Table 3 relates to treatment chemicals used, there dosage ranges and the method by which they are adjusted.

To assess drinking water quality, results for certain parameters were compared to those outlined in "Guidelines for Canadian Drinking Water Quality" (GCDWQ, 1993). It should be noted that the Canadian guidelines (GCDWQ) have been adopted as drinking water quality standards in Alberta legislation (Province of Alberta, 1993), the only province to

do so. Reference should be made to the legislation for complete understanding of how it applies in this regard, the following exerts provides an indication of the intent:

Environmental Protection and Enhancement Act: Potable Water Regulation 122/93, Water Treatment Requirements, section 7):

"A waterworks system must meet at least the minimum potable water treatment requirements set out in the latest edition of *Standards and Guidelines for Municipal Waterworks, Wastewater and Storm Drainage Systems* published by the Department."

Standards and Guidelines for Municipal Waterworks, Wastewater and Storm Drainage Systems (Alberta Environment, 1988), section 4.4:

"The availability and quality of drinking water can have a significant impact on both the public health and the overall quality of life within a community. A major objective of Alberta Environment is to ensure that drinking water supplies and treatment systems provide a high level of public health protection while being able to meet the water supply needs of the community

In developing a drinking water supply system the following three requirements must be satisfied:

- 1. The water to consumers shall meet the health related quality standards as outlined in the Health and Welfare Canada *Guidelines for Canadian Drinking Water Quality*. For those standards based on aesthetic considerations, less stringent requirements may be adopted by Alberta Environment;
- 2. The water system shall provide a basic level of protection against all possible sources and types of raw and treated water contamination; and,
- 3. Sufficient water must be available to meet the needs of the consumers, which may include fire protection."

The parameters investigated during the site visits for comparison to the drinking water standards were turbidity, chlorine residual, trihalomethanes (THMs), and the microbial water quality. The standards given for these parameters are as follows:

Turbidity - maximum average of 1 NTU 95% of the time in treated water and an aesthetic limit of 5 NTU in the distribution system (GCDWQ, 1993)

Chlorine Residual - maintain a free chlorine residual of 0.5 mg/L at the plant, maintain a free chlorine residual of 0.1 mg/L or a total chlorine residual of

0.5 mg/L in the distribution system (Standards and Guidelines for Municipal Waterworks, Wastewater and Storm Drainage Systems)

THMs - maximum allowable concentration of 100 ug/L in the drinking water system at any location (GCDWQ,1993). The old limit for THM was 350 ug/L and it applies to the historical data.

Microbial Water Quality - All drinking water supplies should be analyzed routinely for coliform bacteria and the general bacteria population. This general population can be estimated from either background colony counts on total coliform membrane filters or heterotrophic plate counts (HPC), as outlined in *Standard Methods for the Examination of water and Wastewater*. Excessive concentrations of the general bacteria population can hinder the recovery of coliforms and thereby prevent the detection of a potential threat to public health.

The maximum acceptable concentration for total coliforms in drinking water is zero organisms detectable per 100 mL. Because coliforms are not uniformly distributed in water and are subject to considerable variation in enumeration, drinking water that fulfills the following conditions is considered to be in compliance with the total coliform maximum acceptable concentration:

- 1. No sample should contain more than 10 total coliform organisms per 100 mL, none of which should be fecal coliforms;
- 2. No consecutive sample from the same site should show the presence of total coliform organisms; and
- 3. For community drinking water supplies:
 - a) not more than one sample from a set of samples taken from the community on a given day should show the presence of coliform organisms; and
 - b) not more than 10% of the samples based on a minimum of 10 samples should show the presence of coliform organisms.

If any of the above criteria are exceeded, corrective action should be taken immediately, in consultation with the local authority responsible for drinking water supplies. The most common immediate actions include resampling, increasing disinfection dosage, flushing water mains, using alternative source of water and advising consumers to boil their drinking water.

If up to 10 total coliform organisms per 100 mL are detected from a single sample, or if sample contains either more than 500 HPC colonies per mL or more than 200 background colonies on a total coliform membrane filter (i.e. overgrowth), the water should be resampled. If the presence of coliforms is

reconfirmed (see 2, above), the cause should be determined and corrective action taken as appropriate. If there is a recurrence of the unacceptable background or heterotrophic plate counts, the system should be inspected to determine the cause. If remedial action is deemed necessary, special sampling should continue until consecutive samples comply with guidelines."

3.2 SITE VISIT SUMMARIES

Presented below is a brief summary of the comments related to the site visits. As mentioned, details regarding water quality, plant operations, sampling routine and chemical dosing and operating strategy is presented in Table 3 for each community in alphabetical order. Comments below provide additional information which could not be easily put in tabular form. It should be noted that the summaries presented are only for conditions found during the site visit. Water quality can change drastically due to upsets in the treatment processes and changes in raw water quality.

3.2.1 Athabasca

This facility relies on the operators to manually perform filter backwashes (manually opening and closing valves) and clearing the reservoirs of sludge. On-line monitoring equipment is being installed at this facility to help the operators cope with changing raw water quality. The summary of the data from the site visit shows that the water quality parameters are all within limits. The historical data on THMs and microbial indicators are also within limits.

3.2.2 Barrhead

Two full time people share the responsibilities of operating the water plant, the sewage lagoons and the pump houses. The water plant runs roughly 15 hr per day with the start up and shut down regulated by distribution system reservoir levels.

The disinfection residual in the distribution system is boosted at the field reservoir because of difficulty of maintaining an adequate residual from the plant alone.

The information from the site visit show the only parameter of concern is colour which is an aesthetic concern however it can be an indications of high natural organic matter in the water which may cause taste and odour problems and the formation of disinfection byproducts. The historical THM data shows two of nine samples greater than the current standard which means the plant may have occasional THM problems. The historical microbial data showed an acceptable frequency of coliform positive microbial samples. The theoretical hydraulic retention time in the onsite reservoir is three hours and there may be a concern with having adequate disinfectant contact time. An interesting point from this community is that the town offices use a special filter on their water tap.

3.2.3 Berwyn

This ground water facility currently has no treatment but the operator says by 1997 they are required to disinfect the water. The operator states that he doesn't believe that disinfection is necessary but samples taken during the site visit were coliform positive (82 cfu/100 mL) and the frequency of coliform positive samples in the last two years has been 4% and 5% respectively. While this frequency is within guidelines the addition of disinfection to the system will provide better protection of the drinking water to contamination.

3.2.4 Caddote Lake

There was a very strong odour in the treated water that was not present in the raw water during the site visit. The levels of ammonia increased dramatically as well from the raw to the treated water. The resulting aesthetic quality of the drinking water at this site is poor. A possible explanation for this occurring may be the high concentrations of algae in the raw water that settles to the sludge blanket during treatment and may possibly decompose in the plant and taint the water. If this is the case the solution is to withdraw the sludge blanket at a higher rate and not allow the time to decompose.

The operator doesn't keep track of current chemical doses but records the weights of chemical used. The actual dosages are calculated monthly and submitted on reports. If the dosages were calculated on a current basis it would provide another tool for the operator to control the plant with.

The site visit data showed high turbidity (2.1 NTU) and a low free chlorine (0.08 mg/L) residual which is due to the high ammonia values. The operator stated that most people in area use bottled water. Historical microbial samples at this site show an acceptable frequency of coliform positive samples.

3.2.5 Colinton

There was trouble in determining the chlorine dose at this facility, it is not calculated by the operator regularly. The practice of flushing the distribution system with a strong chlorine solution at this facility is uncommon and may cause public complaints.

This facility had high turbidity (1.6 mg/L) in the treated water and high THM values in both the treated and distributed water (223 ug/L and 198 ug/L, respectively). One of the historical THM samples (239 ug/L) confirms the levels found during the site visits while the other historical sample (42 ug/L) shows lower levels of THMs. Since Colinton is a ground water facility with fairly constant raw water quality operational factors would be the only significant factor impacting the treated water quality. The lower historical THM value is an indication that there may be operational strategies that can help the facility meet THM standards. The microbial sampling shows a 7% frequency of poor samples (see explanation of poor in section 5.3) in the years 1988 and 1989 and 0% since that time which indicates compliance with standards for the period of record.

3.2.6 Cvnthia

This is a small ground water facility with disinfection as the only treatment. During the site visit it was found that the chlorine pump had been unoperational for a while and that the operator would add NaOCL to the reservoir by hand during his weekly visits. The data from the site visit showed the free chlorine value from the distribution system was low (0.05 mg/L). There is one historical THM sample taken from this site and it shows that THM levels were below the detection limit of 1 ug/L. The historical frequency of microbial samples was greater than 10% in four of the last seven years and is at 3% in the current year. The high historical frequency of poor microbial samples is a concern and it is important to maintain the low frequency in the current year.

3.2.7 Desmarais

This facility had a turbidity of 3.0 NTU (above the limit of 1 NTU) during the site visit inspite of the fact that it is a fairly new facility. The eutrophic Wabasca Lake used for the raw water source has significant algae growth in the summer which causes water treatment and taste and odour problems. Changes in the wind can cause significant raw water changes in a short period of time by stirring up bottom sediments and moving algae blooms into the area of the raw water intake. This makes it very difficult to treat the water. The THM values from the treated and distributed water did not meet current standards with treated and distributed water having THM concentrations of 161 ug/L and 174 ug/L respectively. The high THM concentration can probable be related to the high organic content due to the algae. Two of the five historical THM samples were over the current standards which indicates that this facility may problems meeting the current standards at all times. The historical microbial sampling shows a frequency of 0% poor samples for the past six years

3.2.8 Edson

This facility has access to a good ground water supply that requires some degasification and is chlorinated. The system requires minimal operational effort because of instrumentation and data acquisition equipment. All the water quality parameters were within limits during the site visit. The historical frequency of poor microbial samples are acceptable and the historical samples of THMs are all very low (less than 5 ug/L). There were no problems identified at this facility.

3.2.9 Fairview

The operator states that the aesthetic water quality of this facility has greatly improved since a 17 km raw water intake line was run to the peace river. Previously the operators would fill the raw water reservoir in the spring by laying out irrigation pipe and drawing water from near by ponds and ditches. This water was associated with taste and odour problems and high demand for water treatment chemicals. While the new line was costly the operator feels that the savings in chemicals and the benefit of improved aesthetic water quality out weigh the costs. All the water quality parameters were within limits during the site visit. The historical THM samples were within acceptable limits as was the historical frequency of poor microbial samples.

3.2.10 Falher

The operator estimates that 50% of the people in the Town of Falher use bottled water from the local IGA store which treats the water with reverse osmosis. The aesthetic quality of the drinking water at Falher has a reputation with outsiders for being poor but local residence that use tap water are acustom to it. The operator does not receive complaints directly from the public.

The distribution system is flushed once per year and due to soil conditions some of the hydrants do not drain so they are partially pumped out and non toxic RV antifreeze added. The operator indicated that methyl hydrate was use until they learned of the potential for contaminating the water supply.

The raw water source for the facility is a lake that experiences blue green algae blooms in the summer to the extent that access is restricted at times. The distance to the lake is roughly 35 km and the water is transmitted through a man-made cannel that also supplies water to McLennan, Donnely, and Girovxville. The filling of the facilities raw water reservoir occurs in the spring (May and June) and the fall (October) to avoid these algae problems. The growth of algae is controlled in the raw water reservoir by the application of copper sulfate in a mixture sprayed on the reservoir with the town fire truck.

The filters in the plant are backwashed once per week in the summer and twice per week in the winter. The operator states that the cold water in the winter is difficult to treat so the Town spends roughly \$10,000 per month in natural gas bills to heat the water a few degrees.

All the water quality parameters were within limits during the site visit however the presents of fecal streptococcus in the treated water is a concern (see section 4.2). There is no record of a poor microbial water sample from this facility in the seven years of record. The historical THM sampling shows 4 of the 8 samples had levels of THM above the current standards which indicates that this facility may have difficulty meeting the current standards on occasion.

3.2.11 Fort Chipewyan

This is a fairly new facility that is well run and maintained. All the water quality parameters were within limits during the site visit. There is only a minor concern with practice recycling of the filter backwash water to the raw water reservoirs at this facility. The historical frequency of poor microbial samples from this facility is within standards and the levels of THM in the historical samples is also below current standards.

3.2.12 Fort McMurray

This is a well run and maintained facility and during the site visit all the water quality parameters of interest were within limits and the historical THM and microbial samples meet the current standards. There is only a minor concern with the practice recycling of the filter backwash water to the raw water reservoirs at this facility.

3.2.13 Fort McKay

The operator of this facility spent a great deal of time at the facility. The water quality parameters of concern during the site visit were the chlorine residual in the distribution system (0.02 and 0.39 mg/L free and total) and the level of THMs in the treated and distributed water (301 and 317 ug/L respectively). The frequency of poor microbial sampling has been low for all the years except 1988 when it was 10%. There was one of the two historical THM samples that was above current standards. The concerns at this facility are THMs and chlorine residual.

3.2.14 Fort Vermillion

This facility has an excellent raw water source in the Peace River and has no problems with taste and odour or hardness. The raw water quality from the river is subject to rapid change but these changes are suppressed in the raw water reservoirs. During the site visit the water quality parameters tested were within limits and the historical microbial and THM sampling is also within current standards.

3.2.15 Fox Creek

This is a ground water facility with two operating wells. The configuration of the system is such that the raw water storage mixes with the treated water making it possible to double doses some of the water with chlorine. The operator takes a sample from the distribution system and uses that information to adjust his chlorine dose.

During the site visit it was found that the operator had been using the reagents for free chlorine instead of total chlorine. The result was that he thought the residual was around 1.0 mg/L when it was actually over 2 mg/L. The operator was not calculating the chlorine dose being applied based on quantities of chemicals used but was only watching the residual. During the visit the water quality parameters tested were within the limits and the historical microbial and THM sampling is also within current standards.

3.2.16 Gift Lake

This facility appears to be well run and maintained. There are periodic problems caused by algae growth from the lake. During the visit the water quality parameters tested were within limits. The historical data shows that two of the five THM samples were above current standards and two (1988 and 1989) of the seven years of microbial standards did not meet standards.

3.2.17 Grande Cache

This plant uses pressure filters with a coagulant aid, there is no clarification. There is a problem of contact time after disinfection. The operators add there chlorine at the raw water pump house in order to get some contact time before it goes to the distribution system because the treated water reservoir is offsite. During the site visit the parameters outside the limits were the chlorine residual in the distribution system (0.02 and 0.15 mg/L free and total) and the THM levels in the treated and distributed water (100 and 143 ug/L respectively). The historical data shows that one of 10 THM samples would not

have meet current standards and the microbial sampling meet standards for the seven years of record.

3.2.18 Grande Prairie

This facility is fairly new and appeared to be well maintained. The parameters that were outside of the limits during the visit were chlorine residual in the distribution system (0.09 and 0.16 mg/L free and total) and the turbidity in the treated water (2.22 NTU). The historical frequency of poor microbial samples from this facility is within standards and the levels of THM in the historical samples is also below current standards.

3.2.19 Grimshaw

This facility is fortunate to have a good reliable ground water source that with minimal treatment and cost provides an excellent drinking water. All the water quality parameters tested during the site visit were within limits. The frequency of poor microbial samples from the historical data is near the 4% level for all seven years of record which is within limits. The THM levels in the historical samples are very low (less than 5 ug/L).

3.2.20 Highlevel

There was a serious odour problem with the water at this facility which was due inpart to an activated carbon pump that was broken down and waiting for a part. The operator felt the current odour problem was due to the minnows that were numerous in the raw water reservoir and the plant tanks. Odour problems could also be associated with algae growth in the raw water reservoir and Footner Lake (the raw water source). During the visit the level of THM in the treated and distributed water (181 and 185 ug/L respectively) was over the standards while historically one of the four samples were over the current standard. The frequency of poor microbial samples historically is near the 2% level which is within the standards.

3.2.21 High Prairie

During the site visit to this facility the water quality parameters tested were within the limits. The results of historical microbial sampling were within standards and two of the 10 THM samples would not have meet current standards. At this facility the operator did not calculate actual mg/L doses of the chemicals being added but used volumes of chemical slurries being added. The facility seemed to be running well.

3.2.22 Hinton

The pulp mill owned by Weldwood of Canada Ltd. treats the drinking water for the town of Hinton. Roughly 90% of the treated water goes to the pulp mill while 10% is chlorinated and fluoridated and distributed to the Town. This is a good relationship for the town in terms of economics. During the site visit all the water quality parameters tested were within limits as were the historical samples.

3.2.23 Janvier

This facility has limited treated water storage. The operator states that when trucks fill they draw down the water levels drastically. During the site visit the chlorine residual in

the distribution system did not meet standards (0.02 and 0.08 mg/L free and total). This is not a surprising result as the distribution system consisted of roughly two km of pipe with only a few services which mean the water may stay in the pipe long periods. The THM levels in the treated and distributed water (223 and 269 ug/L respectively) also exceeded standards.

3.2.24 Jasper

The operator of this facility doesn't submit reports to AEP and is not under their jurisdiction. The operator samples manually weekly but has on-line analyzers that continuously records the free chlorine residual. The operator is not required report the results of the water tests to any group. This facility has a good water source and is producing good drinking water with minimal supervision. During the site visit all the water quality parameters tested were within limits and the recorded historical samples are also within limits.

3.2.25 Lac La Biche

The facility has not experiences any major problems for the last two years. The last problem was with an abandoned raw water line that was connected to an intake in shallow water. It was found that this line was taking water into the plant and this was the cause of taste and odour problems in the spring.

There is a subdivision roughly 10 km away that is connected to the system that is difficult to maintain a disinfection residual at. There are plans to install a combine chlorine boost in the system to help maintain the residual.

There has been pilot plant work done on investigating the application of dissolved air floatation at this facility, that option was not pursued.

The theoretical detention time in the onsite reservoirs is 0.7 hours. Depending on the actual hydraulic retention time in the on site reservoir there may be inadequate contact time for the disinfectant (0.33 hours required).

The historical and site visit samples show the water quality parameters were within standards however the present of fecal streptococcus in the treated water is cause for concern.

3.2.26 Manning

The operator receives public complaints due to taste and odour episodes in the spring and when the colour goes above 15 NTU. The operator feels the taste and odour episodes are out of his control.

During the site visit the turbidity in the treated water was 2.4 NTU which is over the limit of 1 NTU and the level of THMs in the treated and distributed water (183 and 182 ug/L respectively) was also over the limit. The historical data showed two of seven THM samples at the current standard and no problems with the microbial sampling.

3.2.27 Peace River

This is a well run and maintained facility. Historical and site visit all the water quality parameters tested were within the limits.

1 Contraction of the second

3.2.28 Peerless Lake

During the site visit to this facility the treated water did not meet turbidity (1.7 NTU), free chlorine residual (0.02 mg/L), and total coliforms (195 col/100mL) standards. This facility requires improved operation and repair of the existing equipment as a minimum. The high turbidity in the treated water and the coliform positive samples are indicative of the poor quality of the treated water. Historically three of the seven years (including the current year) of microbial sampling show higher than acceptable frequency of poor microbial sampling.

3.2.29 Sexsmith

This facility has a good raw water source and no extra treatment. Without disinfection the distribution system is not protected from contamination and there is no way of knowing if contamination is occurring. Two of the last seven years of microbial sampling did not meet the standards. During the site visit the turbidity in the treated water was 4.4 which is not within the limits.

3.2.30 Slave Lake

This facility has on-line analyzers for free chlorine, turbidity and a streaming current meter which enables the operator to reacted to changing water conditions that occur on the Slave Lake. The dosing of the coagulant aid is tied in directly to the streaming current meter which allows the plant to react to changing raw water character. Algae growth in the lake cause taste and odour problems for the plant. These problems are the most challenging in the spring and fall. The practice of recycling backwash water is a concern in drinking water treatment. During the site visit the level of THMs in the distribution sample was 107 ug/L which is over the limit while one of the seven historical THM samples was at the current limit. This indicates there may be occasional THM problems.

3.2.31 Smith

The person operating this facility daily had the title of administrative support. The supervising operator that was making weekly visits to this plant has been on long term sick leave for possibly more than one year. There is support from I.D. #124 in Slave Lake if there were any problems and extra people come out to fill the raw water reservoir and maintain the site. It was unclear from the visit if the daily operator had been provided the appropriate training for the tasks required including a Scott air pack that was located on site. The operator stated that if the chlorine bottles ran empty then a quantity of NaOCl was thrown into the reservoir however they try not to let the bottles run empty. During the site visit all the water quality parameters where within the limits. Historically, all seven years of record meet the microbial requirements except 1990 and the were no THM samples over current limits.

3.2.32 Swan Hills

This facility has the benefit of a great deal of operator hours. It seems like a well run and maintained facility. During the site visit all the water quality parameters where within the limits as were the levels with the historical samples.

3.2.33 Tangent

This is a pressure filter facility that was built when turbidity standards were less stringent. The plant has difficulty meeting current turbidity standards, AEP recommends the plant be upgraded. The operator states that with only 100 people in the hamlet the I.D. administration cannot justify spending large amounts of money to upgrade the plant when the current water quality is probable superior to what the rest of 1600 people in the I.D. area drink.

There is a problem in the summer when the water use can be very high because the treated water reservoirs are drawn down and there insufficient time for the chlorine to react which results in a high chlorine concentration in the water going to the distribution system this results in public complaint about the taste of chlorine. There is a person in the Hamlet with access to the water plant that goes to the plant and turns down the chlorine dose if the water has strong chlorine taste and odour. The THMs in the treated and distributed water (201 and 230 ug/L respectively) was the only water quality parameter exceeded however the presents of fecal streptococcus in the distributed water is of concern. The frequency of poor microbial sampling in the seven years of record is around 9% which is of concern but not over the limit of 10%.

3.2.34 Teepee Creek

There was some confusion at this site in that the visit was intended to be to the Teepee Creek School but the facility that was visited was a small ground water facility that supplies the seven house in the area, the school is on a separate well. The guidelines do not apply to this facility and so further discussion here is unwarranted.

3.2.35 Wandering River

During the site visit the operator asked if I would wait to take my sample because the NaOCl pump was air locked and there was no chlorine being added. The operator fix the pump and said my sample should OK now. He then threw a quantity of NaOCl into the reservoir. It is obvious that the disinfection system is unreliable at this facility, the operator says the plant doesn't run with out someone there unless there is a fire. This is a fairly new facility. The only parameter to outside of the limits was THMs in the treated and distributed samples (141 and 128 ug/L respectively). The presents of fecal streptococcus in the distributed water is also a concern. The frequency of poor microbial samples in the historical data was within limits for every year except 1989 (18%). One of the three historical THM samples was at the current limit which indicates THM may be a problem.

3.2.36 Westlock

There is no serious taste and odour problems in the spring but there is some related to algae growth in the raw water reservoir. The algae growth is controlled by copper sulfate which used to be added by boat but now is added at the raw water intake. The facility recycles 80% of the filter backwash water with the remainder going to the sewer this may be a concern. The chlorine residual leaving the plant is affected greatly by the water level in the clear well. In dosing the chlorine the operator takes into account the clear well level and the test results and bumps the dose up or down in order to maintain a residual of 1.0 mg/L leaving the plant.

The only parameter to outside of the limits during the site visit was THMs in the treated and distributed samples (101 and 169 ug/L respectively) and the presence of fecal streptococcus in the treated water is of concern. Historically the data shows that two of the six THM samples were at the limit and the microbial samples were within limits.

3.2.37 Whitecourt

The configuration of the onsite storage at this facility is such that treated water can go directly from the clear well to the distribution system without having to go through the reservoir. There may be inadequate contact time under these conditions. A great improvement in disinfection contact time is available by making the piping correction necessary to have the treated water go through the reservoir before going to distribution.

The poor raw water quality is associated with rain events rather than spring breakup. The operator has noticed on one occasion foam on the river and felt it was coming from the pulp mill up stream because he could feel fibers in the foam. The operator call AEP about the matter.

The only parameter to outside of the limits was THMs in the treated and distributed samples (133 and 142 ug/L respectively) and the presence of fecal streptococcus in the treated and distributed water is a concern. The historical data shows that the recorded THM and microbial samples were within current limits.

3.2.38 Woking

This facility appears to be well run. During the site visit all the water quality parameters where within the limits. The historical data shows that seven of the 10 THM samples taken were above current limits which indicates there is likely a problem with THMs at this facility. There were no problems revealed in the historical microbial data.

3.2.39 Worsley

One comment that the operator made that was of concern was that the chlorine line works its way out of the feed tank at times so that there is no chlorine being fed. The only parameter outside of the limits was THMs in the treated and distributed samples (180 and 290 ug/L respectively). The historical data showed no problems with THM and the microbial sampling.

4.0 SUMMARY OF DRINKING WATER OUALITY DATA COLLECTED FROM SITE VISITS

In the previous section the data collected from the site visits was presented. The following subsections summaries specific water quality parameters and identifies and trends that are important based on results from site visits.

4.1 TURBIDITY DATA

The turbidity data collected from the site visits has been sorted and summarized based on community status (town or hamlet etc.), sample type (raw, treated or distributed) and type of source water for the facility (surface or ground water). The summary is in Table 4.

The standard for turbidity in treated water is 1 NTU 95% of the time. The samples taken during the site visits were grab samples and compliance with the guidelines could no be determined based on one sample. A turbidity value over the standard of 1 NTU in the treated water does give a strong indication that the facility may have difficulty meeting the turbidity standard at times. The table lists the number of samples over 1 NTU in the distributed water and it should be noted that the standard in the distributed water is 5 NTU and it is an aesthetic objective.

The table shows that there were six sites were the treated water turbidity was over the 1 NTU limit. Four of the sites are small communities (hamlets and water points) with both water points visited in the group being over 1 NTU. The other sites were the Town of Manning and the City of Grande Prairie. It was surprising that Grande Prairie was above 1 NTU given the quality of the facility and the staffing levels. Analysis of historical data seems to indicate that the high turbidity may be the result of a plant upset as generally turbidity is within guidelines. However, given the size of the facility and the population served the cause of the high turbidity should be determined.

There appears to be a trend in the average turbidity in that towns have lower turbidity than the hamlets or water points. The only statistically significant relationship found is that the water points have a higher average turbidity than both the hamlets and the towns at a 95% confidence level.

The turbidity data indicates that 6 of the 32 treated water samples taken were above the 1 NTU limit which would indicate that these sites may have difficulty meeting the standards. The results also show that the average turbidity from the treated water samples taken at water points were significantly higher the averages of those taken at hamlets and towns.

4.2 MICROBIAL DATA

The microbial data collected has been sorted and summarized based of the status of the community be it a town or hamlet etc.; the type of sample (raw, treated or distributed); and the type of source whether surface or ground water for the 13 microbial parameters analyzed. The summary can be found Table 5.

The data on coliforms indicates there was only one ground water sample taken that was total coliform (TC) positive and there were none that were fecal coliform (FC) positive. The total coliform positive sample was from Berwyn and it was taken from the distribution system which would suggest a problem in the distribution system and not in the raw water. This is fairly serious occurrence as coliforms are used in the drinking water standards as indicators of microbial water quality. The sample taken from Berwyn distribution system (82 cfu/100 mL) is not in compliance with standards. The rest of the ground water sites have no indication of coliforms in the water.

As expected the coliforms data from the surface water facilities identified TC in 26 of the 28 raw water samples and found FC in 19 of 29 raw water samples. The average count in the samples was 20 and 4 cfu/100 mL for TC and FC respectively and there were 8 samples where TC were uncountable because they were either too numerous to count (tntc) or confluent growth (confl). The recommendation for TC counts in raw drinking water is 5000 cuf/100 mL for conventional treatment and 500 cuf/100 mL for direct filtration facilities (Zhou *et al.*, 1995). For the sites where TC values were determined the raw water quality is adequate for a conventional treatment plant and there were four sites that exceeded the 500 cfu/100 mL guideline for a direct filtration plant. Of the four sites over the 500 cfu/100 mL value all were equipped with conventional treatment except at Peerless Lake were the clarifier was broken down and the plant was essential a direct filtration plant. Comment cannot be made on the raw water quality based on total coliforms at the 8 sites where the colonies were uncountable.

The only treated or distributed water sample taken from a surface water facility that showed the presents of any coliforms was the treated sample at Peerless Lake with 195 cfu/100 mL. It is interesting that this is the site that did not meet the raw water TC guideline for the processes in use.

The heterotrophic plate count (HPC) data for both the 48 hour test and the seven day tests show expectantly that the ground water sites have fairly low colony counts compared to the surface water sites.

The HPC data from the surface water sites indicates a marked reduction from the raw water levels to the treated and distributed water levels which reflects the treatment and disinfection processes effect. There is some evidence of regrowth in the distribution system when comparing the 7 day HPC average for the treated and distributed waters. All the surface water sites comply with standards on HPC counts (500 cfu/1 mL, GCDWQ) in the treated and distributed water except for Peerless Lake with 774 cfu/1 mL in the treated water.

Klebsiella is one of the coliform group of organisms and the data shows that it is present in 14 of the 28 surface water samples and one of the seven ground water samples. The data demonstrates that coliforms are always present when klebsiella is present except in the two cases of Hinton treated and Janvier distributed.

The data on fecal streptococcus indicates that none were found in any ground water samples but were present in all but one raw surface water sample. A somewhat surprising result was that six communities contained fecal streptococcus in their treated water. These communities include Falher, Lac La Biche, Tangent, Wandering River, Westlock, Although there are no guidelines for the occurrence of fecal and Whitecourt. streptococcus in drinking water, these organisms are used as an indicator of fecal contamination. It has generally been thought that the fecal streptococcus group occur only in the feces of human and other warm blooded animals and therefore constitute a more specific test for fecal contamination than the coliforms group (Velz, 1984). It has also been found that fecal streptococci are more persistent than coliform bacteria and therefore may be a more sensitive indicator of treatment efficiency (WHO, 1993, and Velz, 1984). Although as discussed no standard is given for fecal streptococci the World Health Organization (WHO, 1993) states if fecal indicators are shown to be present, then it must be assumed that pathogens could also be present. For this reason, fecal indicator bacteria must never be present in the treated water delivered to the consumer and any detection should prompt immediate action to discover the cause and take remedial action. As a result the findings of fecal streptococci in 6 of the sites tested is a cause for concern. However it should also be noted that samples taken only represent grab samples and further analysis of these sites is required.

The presents of yeasts and molds was found in all raw surface water samples and roughly 30% of the treated and distributed samples taken from surface water facilities. Molds were found in two of the 6 ground water sites sampled and yeasts were found in all but one of the ground water sites. High concentrations of yeasts and molds can be related to taste and odour problems.

The iron, sulfate, sulfite, and thiosulfate reducing bacteria and the iron oxidizing bacteria are associated with biofilms in distribution systems and play an important role in some corrosion processes in distribution systems. Some of these organism, particularly iron oxidizers can affect the aesthetic quality of the water. The data shows that the iron and sulfite reducing bacteria and the iron oxidizing bacteria are present in roughly 30 of the 35 raw water samples taken. The treated samples showed these organisms present at only 4 of the sites. There is some evidence of regrowth within the distribution system as at 10 sites the iron and sulfite reducing bacteria were present in the distributed water samples and 17 of the sites showed iron oxidizing bacteria were present in most raw water samples and fewer but similar number of treated and distributed water samples. It is difficult to relate these finding to the aesthetic water quality from the distribution system as the aesthetic quality of the raw water tends to overshadows these factors.

The microbial data shows that the raw water quality of the samples were within the guideline recommended for the treatment practices used except for Peerless Lake were the plant was operating as a direct filtration plant. There were 8 raw water samples that were uncountable for TC and no assessment can be made of these waters. The treated and distributed samples all complied with standards except for Peerless Lake (TC=195 cfu/100 mL and HPC=774 cfu/1 mL) and Berwyn (TC=82 cfu/100 mL). Additionally there are some concerns due to the occurrence of fecal streptococcus in the treated water of six sites.

The microbial quality of the water related to the status of the community (town or hamlet etc.) did not provide significant distinctions. While the two water points visited had some of the lowest quality raw water and one of the sites did not meet requirements of treated water standards, there was not enough data to establish the significance of this trend.

4.3 THM DATA

The trihalomethane (THM) data has been sorted by the status of the community (town or hamlet etc.), the type of sample (treated or distributed) and the type of source water (ground or surface). The raw water was not analyzed for THM because they are formed as by-products of chlorine disinfection and therefore not an issue in raw water. The summary of the data can be found in Table 6.

The standard for THM is 100 ug/L (GCDWQ) in the drinking water at any point in the system. The table shows that over half the samples taken from the distribution systems of the facilities visited were over the 100 ug/L standard. There was one of the four distribution samples taken from a ground water facility was over the limit and 12 of the 21 samples taken from surface water facilities were over the limit. There is not a significant relationship with the THM data and the status of the community with 60% of both the towns and hamlets exceeding the standard in the distributed samples and neither of the water points exceeding the standard. This would indicate that the levels of THMs are not related to the size of community in the NRBS area but seem to be a concern for many communities as the data indicates that over half of the communities visited may have difficulty meeting the THM standards.

THM are a group of chemicals which are characterized by halogen-substituted single carbon compounds. With respect to drinking water four of these compounds tend to be important: bromoform, dibromochloromethane (DBCM), bromodichloromethane (BDCM) and chloroform. The most commonly occurring constituent is chloroform (WHO 1993).

The guideline value is based on health effects related to the various compounds. It should be noted however that THM may also act as indicators for the presents of other chlorination by products. Both bromoform and dibromochloromethan are classed as agents which are not classified as to its carcinogencity to humans by the International Agency for Research on Cancer (IARC) (WHO, 1993). This category is used for agents for which evidence of carcinogencity is inadequate in humans and inadequate or limited in experimental animals. Bromodichloromethane and chloroform are classed by IARC as agents which are possible carcinogenic to humans. This category is used for agents which there is limited or inadequate evidence of carcinogencity in humans but there is less than sufficient or sufficient evidence in experimental animals.

The guideline value of 100 ug/L is based on an excess risk of 10⁻⁵ (WHO,1993), Although the number of sites which exceed the THM guideline is of concern, the risks to health from these by-products are small in comparison with the risks associated with inadequate disinfection. As a result the WHO (1993) states that if local circumstances require that a choice must be made between meeting either microbial guidelines or guidelines for disinfectants or disinfectant by-products, the microbiological quality must always take precedence. Efficient disinfection must never be compromised. Generally however, with proper treatment both requirements can and should be met. The level of disinfection by-products can be reduced by optimizing the treatment process. Removal of organic substances prior to disinfection reduces the formation of these by-products.

4.4 SUMMARY OF TREATMENT PRACTICES

The information collected during the site visits and other information provided by operators indicates that there is a lower level of care at the smaller facilities (hamlets and water points) compared to the larger ones (towns and cities). This is not to say that the difference is in the operators themselves but rather in the managerial support the operators receive in terms of time allocated for operating the plant and training provided. There is one case at a small facility were the operator received one half hour training when they started the job and then the supervising operator went on holidays for two weeks leaving the new operator to run the plant. Another situation at a small plant had an clerk operating the water plant with a qualified operator visiting weekly except the qualified operator had been on sick leave for one year.

5.0 SUMMARY OF EXISTING DRINKING WATER OUALITY DATA

Based on results and observations from the site visits there appeared to be a trend that smaller facilities were having a more difficult time producing good quality water than larger facilities. However, due to the small sample size (38 sites) and only one set of samples taken at each site, it was not possible to prove whether the trend was significant. As a result data bases obtained from AEP were analyzed to assess this trend.

The data in this analysis came from two Alberta Environmental Protection (AEP) sources, the treated water survey (460 samples in the NRBS area) and the database of microbial sampling (72,000 samples in NRBS area 270,000 samples in all Alberta). The treated water survey had been analyzed before (Prince *et al.* 1995) but not for trends based on facility size. The microbial database had not been studied in earlier reports.

The analysis of the data in AEP's treated water survey shows that chemically the drinking water in the NRBS area meets GCDWQ maximum acceptable concentrations (MAC) for all parameters except for some trihalomethanes (THMs) violations at the older limit of 350 ug/L (see previous NRBS report "Review and Synthesis of Existing Information on Consumptive Use of Drinking Water and Available Drinking Water Quality Data"). While the turbidity data in the treated water survey are not comparable to the standards because the samples are taken from the distribution systems the data is useful in assessing drinking water quality. A summary of the THM data and the turbidity data from the treated water survey is included to provides insights into water quality in the NRBS area.

An analysis of the historical microbial data provides an in-depth insight into the drinking water quality.

5.1 SUMMARY OF EXISTING THM DATA

Figure 1 is a figure taken from the Review and Synthesis of Existing Information and it demonstrates the distribution of site average chloroform (one of the THMs) values. The THM standard has just recently changed and at the time these treated water survey samples were taken the standard was 350 ug/L meaning that these site averages were in compliance. If the levels of THMs in the drinking water in the NRBS continue unchanged and this figure is compared to the current standard of 100 ug/L it shows that 20 of the 62 surface water sites will have difficulty meeting the standards. Table 7 is a summary of the THM values from the 460 NRBS area samples in the treated water survey. The table summarizes the samples by the status of the community and whether it is a ground or surface water source and compares to see the number and percent of samples that would not meet current standards (again the old standard applies to these samples). This gives an indication that if water quality does not improve with regard to THMs the percent of the surface water sites that have difficulty meeting standards is 0% of cities, 8% of towns. 34% of villages, 42% of hamlets and 50% of water points and Metis settlements (the last two categories are based on only a few samples). The ground water sites were not as big a concern with regard to THMs with only 1 of the 66 samples being over the current guideline. There seems to be a trend that generally the smaller surface water communities will have more difficulty with the THM standards than the larger ones (towns and cities).

5.2 SUMMARY OF EXISTING TURBIDITY DATA

The 389 turbidity samples from AEP's treated water survey were collected from the distribution systems of the facilities so that the GCDWQ standard of 1 NTU does not apply. However, it is still enlightening to compare the means of the turbidity for communities with population greater than 500 to those less than 500. Table 8 is the summary of the comparison. The table shows that surface water facilities with populations greater than 500 have significantly lower turbidity (α =0.02) than facilities greater than 500 population. The difference in the ground water facilities is not statistically significant.

5.3 SUMMARY OF EXISTING MICROBIAL DATA

Currently the strategy for controlling the microbial quality of drinking water is based on turbidity and the presence and quantity of indicator organisms like total and fecal coliforms (TC and FC) and heterotrophic plate count (HPC). The success of this strategy is evident historically by the dramatic decline in epidemic and endemic waterborne diseases like typhoid fever and cholera (Sobsey *et al.*, 1993). There are some pathogenic microorganisms that are not well represented by TC, FC and HPC indicators, such as *Giardia* (responsible for beaver fever). New strategies are evolving to control these other waterborne risks to public health. These new strategies look at several of the current treatment processes as barriers to pathogenic microbes and continue to use turbidity as the critical parameter to assess treatment process performance. The importance of turbidity as a parameter to justify pathogen removal credits in their most recent standards (Letterman, 1994). In these standards maximum credits are earned with turbidity of ≤ 0.5 NTU 95% of the time.

It should be noted that the risk associated with microbial contaminants are normally much greater than those associated with chemical contaminants. The World Health Organization (WHO, 1993) in their "Guidelines for Drinking Water Quality" state:

"The potential consequences of microbial contamination are such that its control must always be of paramount importance and must never be compromised."

There is also concern that current guidelines based on indicator organisms and turbidity may not be rigorous enough. Endemic and community wide gastrointestinal illness have been attributed to drinking water meeting current guidelines (Sobsey *et al.*, 1993).

The microbiological standards in the GCDWQ (pg. 11) were checked against the large database (270,000 samples) of microbial data for compliance. Pertinent sections of the GCDWQ were given previously in Section 3 and will be referred to:

The AEP database gives information taken from microbial analysis records in the form of either affirmative or negative indications of the following categories; 0 < TC > 10, TC >10, FC > 0, too numerous to count, confluent growth (overgrown), samples late for analysis, broken bottles, and incorrectly labeled. Note, no actual numbers were given and only the month and year of the sample date are known. The last three categories were excluded from the analysis.

A summary of the microbial database for the NRBS area and all Alberta is in Tables 9 and 10. The tables list the number of samples taken and number in the categories mentioned previously. The percent of samples that were coliform positive and the percent of sample that were poor (defined later) are calculated. It is interesting to note that the ground water facilities with no disinfection have a high incidence of coliform positive

samples. There is also a trend of higher percent of coliform positive samples with the smaller communities and a lower percent coliform positive with the larger communities.

Items 2 and 3a. under section 3.1 of the GCDWQ could not be investigated because of a lack of data. Under item 1 the database showed several samples exceeding concentration values with TC concentrations greater than 10 cfu/100mL or positive FC but again there is not enough information to examine this item. To investigate item 3b (no more than 10% of samples can be coliform positive) the percent of samples from a site that were coliform positive over a calendar year were calculated. Tables 11 and 12 show a summary of the sites that had more than 10% of samples coliform positive (exceeding standards). Table 11 shows that the smaller communities have more sites exceeding standards than the larger ones with 30% of the water points exceeding standards in 1994. Figures 2 and 3 shows the graphical representation of this data in the NRBS area and all Alberta. As indicated by the figures communities that have a highest percent of coliform positive samples are those with population less than 500. The World Health Organization and the USEPA standards for microbial quality of drinking water stipulate that no more than 5% of the microbial samples from a water system can have the presents of coliforms (WHO.1993 and USEPA) which is more stringent than the GCDWQ standard. As mentioned the situation is common to the NRBS area and all Alberta. Goodrich et al. (1992) found a similar situation in the United States.

In the lab analysis for TC and FC a situation can arise where other bacteria overgrow the plates making it impossible to identify the presents of coliforms. As stated in the excerpt of GCDWQ in section 3 above this is considered an unsatisfactory sample and the reoccurrence of these samples should be investigated and corrected. The rate of the recurrence of overgrown samples and coliform positive samples was combined and referred to as the % poor and summarized in Tables 13 and 14 and Figures 4 and 5. While the use of the 10% limit in the Tables 13 and 14 was an arbitrary choice and does not reflect standards exactly, a strong argument can be made the facilities over the 10% poor samples limit are a concern and have a problem. The Figures 4 and 5 and Tables 13 and 14 demonstrate that there is a more pronounced difference between large and small communities with this comparison. There were 45% of Water Points that had over 10% poor samples in 1994. The figures show that more small communities have shifted to the right (higher % poor) than have the larger communities which is comparable to all Alberta sites. Table 15 gives a listing of the NRBS area water treatment facilities and the percent of samples that were poor and coliform positive. Of particular concern is the fact that a number of facilities continuously have sampling which exceeds the CDWQG.

6.0 CORRELATION OF SITE VISIT DATA WITH EXISTING DATA

The information on turbidity seems to agree in both the historical and site visit data. The existing data shows significantly higher turbidity levels in communities less than 500 populations and the site visit data show that turbidity in the treated water at water points is significantly higher than towns and hamlets.

The historical THM data and the site visit THM data both suggest that many facilities will have difficulty meeting the THM standard of 100 ug/L. The historical data suggests that roughly 30% of the sites tested would not meet current standards with smaller facilities having up to 50% having difficulty meeting standards. The site visit data found roughly 50% of the sites tested over the 100 ug/L limit and there was no trends based on the size of community.

Comparing the historical and the site visit microbial data does not provide clear agreement because the number of site visit samples was very limited compared the extensive historical database and given that only one sample was taken during the site visit the assessment of 10% of the samples being coliform positive was not possible. The two sites with coliform positive samples of treated water from the site visit data are in the categories of sites identified by the microbial database as having a high incidence of poor microbial samples. Berwyn is a ground water site with no disinfection and Peerless Lake is a water point.

The data collected from site visits seems to correlate reasonable well with the historical data.

7.0 CONCLUSIONS

The World Health Organization (WHO, 1993) states that:

"Water is essential to sustain life and a satisfactory supply must be made to achieve a drinking water quality as high as practicable"

The primary purpose of drinking water treatment is the protection of public health. The quantity of drinking water and the efficiency of treatment can be assessed through comparison to guidelines. In Canada, the applicable document is the Guidelines for Canadian Drinking Water Quality (1993) which has been adopted as minimum drinking water quality for licensed facilities in the province of Alberta. Most other developed countries have similar guidelines or regulations. The World Health Organization has also developed "Guidelines for Drinking Water Quality" (WHO, 1993) with a primary aim of protecting public health.

To assess drinking water quality in the Northern River Basin Study area results obtained from existing information and that obtained during this study were compared to both sets of guidelines discussed above. Of the sites investigated many were licensed facilities by Alberta Environmental Protection (AEP) and are required to meet as a minimum the Guidelines for Canadian Drinking Water. Other sites although not licensed by AEP still supply water to consumers, who tend to assure the water is of potable quality. As stated in the guidelines for Canadian Drinking Water:

"The guidelines and recommendations listed herein are intended to apply to all drinking water supplies, public and private. ... Judicious use of the guidelines will result in the provision of drinking water which is both wholesome and protective of public health." As a result both licensed and unlicensed facilities were assessed based on comparison to guidelines.

Based on site visits to 38 facilities, water quality analyses completed for the site visit and analysis of existing water quality information a number of conclusions can be made on the drinking water quality in the Northern River Basin Study area.

- 1. Small facilities in the study area tend to produce poorer water quality than larger facilities. This was found to be the case in terms of microbiological quality, turbidity (a good overall measure of treatment performance), and historical THM data.
- 2. As stated by the World Health Organization (1993):

"Infectious diseases caused by pathogenic bacteria, viruses and protozoa or by parasites are the most common and wide spread health risk associated with drinking water."

As it is not possible or feasible to test for all pathogenic organisms, microbiological quality of drinking water is assessed based on indicator organisms. If these indicator organisms are present in the finished drinking water it then must be assumed that pathogens could also be present. The most common microbiological indicator used in drinking water is the coliform group of organisms. Due to difficulties in sampling, transporting and analysis a single coliform positive sample may not truly reflect the microbial quality of the drinking water. As a result the Guidelines for Canadian Drinking Water Quality (GCDWQ, 1993) state that not more than 10% of samples taken should be coliform positive. The WHO (1993) uses a more stringent guideline of not more than 5% be coliform positive. As the number of samples in small facilities are not great the 10% value was used in this study to assess microbial water quality to avoid unwarranted concerns to be raised for a facility based on a couple of bad samples. Analysis of a large database obtained from AEP of coliform results from communities in the Northern River Basin Study area was completed. This database consisted of roughly 270,00 total and 270,000 fecal coliform analyzes taken over the last seven years. Of the smallest facilities, watering points, 30% of them exceeded the 10% coliform positive guideline. If one includes samples which are considered poor by the GCDWQ (1993) this increases to 45%. Of particular concern was the finding that a number of facilities had high coliform positive percentages for all of the seven years the data was analyzed.

The occurrence of fecal streptococci, another indicator of fecal contamination, in 6 of the 28 surface water sites visited adds additional concern on the microbiological quality of water in many communities in the NRBS area.

3. It was also found that small facilities in the study area tended to have higher turbidity than larger communities. Although turbidity is only a measure of the clarity of water, high turbidity has been shown to negatively impact the performance of disinfection. In addition the most effective method of removal of protozoan cysts such as Giardia and Cryptospordium is through physical-chemical treatment processes for which there

performance can be related to turbidity removal. The importance of turbidity as a parameter to indicate microbial quality is evident in the USEPA using turbidity to justify pathogen removal credits in their most recent standard. In these standards, maximum credits are earned with turbidity of ≤ 0.5 NTU 95% of the time.

Results from existing data indicated that surface water facilities serving populations less than 500 have a significantly higher turbidity than facilities serving populations greater than 500. Because these samples were obtained from the distribution system and the small number of samples collected, compliance with guidelines could not be assessed.

During the site visits 6 of the 38 sites had turbidity greater than 1 NTU, which in included the two watering points visited. These grab samples cannot be compared to standards which specify the maximum average turbidity 95% of the time must be below 1 NTU but they indicate that there may be problems at these sites.

- 4. Chemical parameters associated with raw water quality were found to be below guideline values based both on existing data and site visit data. However, for disinfection by-products (THMs) which are produced during treatment, the site visit data found, that 60% (12 0f 21) of the surface water sites exceeded the guideline value of 100ug/L for THM. Analysis of existing data for THMs was complicated by the fact that most samples taken occurred under the old value of 350ug/L. The analysis did show however, if levels remained unchanged, 20 of the 62 sites analyzed by AEP would have difficulty meeting the lower standard value that is now in place.
- 5. Observation from site visits tended to indicate that much of the difficulties associated with small facilities may be related to operation of the facilities. Generally this can be related to the allotted time the operator is given to operate the facility, with smaller facilities having less time than larger facilities. The attitude of the people in decision making positions related to water treatment may also be an important factor. Operation performance may also be related to training as in larger facilities the majority or sole duty of the operator is to run the facility. As a result the opportunity for these operators to receive training is much greater. In small facilities, the operation of the treatment facility may be one of numerous tasks the operator may have to do. As many other tasks may be part of their daily routine the opportunity and incentive for these operators for training tends to be less.
- 6. Based on results of this study, remedial action is required in many small communities in the Northern River Basin Study area to bring the drinking water into compliance with current standards which are based on the protection of public health. Many communities are currently drinking water that may not meet Guidelines for Canadian Drinking Water Quality. Areas of concern are both the microbiological quality of the water and high levels of disinfection by-products. Of these the microbiological quality of the drinking water is by far of greatest concern. Many of the small communities showed higher than acceptable levels of indicator organisms as well as high turbidity.

The occurrence of both would indicate that if pathogenic organisms are present in the raw water source they probably will not be removed by the treatment system.

In the time needed for remedial actions to rectify the problems it is of utmost importance that consumers of water be notified immediately as to the status of their drinking water with respect to standards along with recommendations of prudent courses of action available to them. In the case of microbiological problems that are not rectified consumers should be advised to boil their drinking water as recommended in Guidelines for Canadian Drinking Water Quality (1993) and World Health Organization (1993).

8.0 REFERENCES

Alberta Environment. 1988: Standards and Guidelines for Municipal Water Supply, Wastewater, and Storm Drainage Facilities. Standards and Approvals Division, Edmonton, Alberta.

Environmental Protection and Enhancment Act. 1992. Province of Alberta.

- Goodrich, A.G., Adams, J.Q., Lykins Jr, B.W., and Clark, R.M. 1992. Safe Drinking Water From Small Systems: Treatment Options. Journal AWWA, May 1992.
- Guidelines for Canadian Drinking Water Quality. 1993. Health and Welfare Canada, Ottawa, Ontario.
- Letterman, R.D. 1994. What Turbidity Measurements Can Tell Us. Opflow Vol. 20 No. 8 August 1994, Publication of AWWA.
- Prince, D.S., Smith, D.W. and Stanley, S.J. 1995. Review and Synthesis of Existing Information on Consumptive Use of Drinking Water and Available Drinking Water Quality Data. Report prepare for the NRBS
- Province of Alberta. 1993. Environmental Protection and Enhancement Act: Potable Water Regulation, Alberta Regulation 122/93.
- Renner, R.C., Hegg, B.A., Bender, J.H., and Bissonette, E.M. 1994. Composite Correction Program Optimizes Performance at Water Plants. AWWA Teleconference, Preventing Waterborne Disease: How to Optimize Treatment, September 9 1994. (pg. 111-118)
- Sobsey, M.D., Dufour, A.P., Gerba, C.P., LeChevallier, M.W., and Payment, P. Using a Conceptual Framework for Assessing Risks to Health From Microbes in Drinking Water. Journal AWWA, March 1993
- Standard Methods for the Examination of Water and Wastewater (1992).18th ed., Am. Public Health Assoc., Washington, D. C.

World Health Organization. 1993. Guidelines for Drinking Water Quality.

Zhou, H., et al. 1995. Removal of Microbial Contaminants from Water Treament Processes for the Northern River Basins Communities. Report prepared for NRBS

FACILITY	STATUS	POPULATION	TYPE	SOURCE
ATHABASCA	T	1975	S	Athabasca River
BARRHEAD	T	4014	S	Paddle River
BERWYN	v	606	G	
CADOTTE LAKE	WP	241	G	
COLINTON	Н	126	G	
CYNTHIA	Н	56	G	
DESMARAIS	Н	350	S	South Wabasca Lake
EDSON	Т	7323	G	
FAIRVIEW	Т	3281	S	Peace River
FALHER	Т	1183	S	Winagami Lake via canal
FORT CHIPEWYAN	Н	1200	S	Lake Athabasca
FORT MACKAY	Н	267	S	Ells River
FORT MCMURRAY	С	33698	S	Athabasca River
FORT VERMILION	Н	823	S	Peace River
FOX CREEK	Т	2068	G	
GIFT LAKE	MS	424	S	Gift Lake
GRANDE CACHE	Т	3842	S	Victor Lake
GRANDE PRAIRIE	C	28350	S	Wapiti River
GRIMSHAW	Т	2812	G	•
HIGH LEVEL	Т	2921	S	Footner Lake
HIGH PRAIRIE	Т	2932	S	West Prairie River
HINTON	Т	9893	S	Athabasca River
JANVIER	н	435	S	Christina River
JASPER NATIONAL PAR	NP	4475	S&G	Cabin Lake
LAC LA BICHE	Т	2553	S	Lac La Biche
MANNING	Т	1144	S	Notikiwin River
PEACE RIVER	Т	6696	S	Peace River
PEERLESS LAKE	WP	253	S	Peerless Lake
SEXSMITH	Т	1256	G	
SLAVE LAKE	Т	5607	S	Lesser Slave Lake
SMITH	Н	323	S	Athabasca River
SWAN HILLS	Т	2407	S	Freeman Lake
TANGENT	H	60	S	Surface runoff
TEEPEE CREEK	S	18	G	
WANDERING RIVER	H	43	S	Wandering River
WESTLOCK	Т	4463	S	Pembina River
WHITECOURT	Т	6692	S	Macleod River
WOKING	н	77	S	Surface Runoff
WORSLEY	H	51	S	Eureka River
	STATUS			
	С	City		
	Т	Town		
	V	Village		
	H	Hamlet		

WPWatering PointMSMetis Settlement

School

Table 1: Sites Selected For Site Visits

S

	TOTAL	TOTAL	TOTAL	TOTAL	SELECTED	SELECTED
TYPE OF PROCESS	FACILITIES	SURFACE	GROUND	SELECTED	SURFACE	GROUND
		WATER	WATER	FACILITIES	WATER	WATER
No Treatment	38	0	38	 1	0	1
Raw water reservoir	48	48	1	19	18	1
Treated Water Reservoir	67	51	16	28	22	6
Cistern	0	0	0	0	0	0
Algae control	0	0	0	0	0	0
Oxidation	1	1	0	0	0	0
Aeration	19	17	2	7	6	1
Taste and Odour control	14	14	0	9	9	0
Coagulation	55	53	2	26	25	1
Coagulant aid	42	40	2	20	19	1
Flocculation	16	16	0	5	5	0
Clarification	24	22	2	11	10	1
Sedimentation	21	20	1	8	8	0
Carbon adsorption filtration	2	2	0	0	0	0
Micro strainer filtration	0	0	0	0	0	0
Pressure filtration	11	11	0	4	4	0
Slow sand filtration	25	21	4	6	4	2
Rapid sand filtration	34	33	1	18	18	0
Manganese greensand filtration	15	4	11	1	0	1
Multi-media filtration	4	4	0	0	0	0
Dual-media filtration	2	2	0	1	1	0
Cyclonic separation	0	0	0	0	0	0
Softening	8	5	3	3	3	0
pH control	37	36	1	18	17	1
Iron removal	19	5	14	5	3	2
Iron sequestering	3	0	3	1	0	1
Scale Control	1	0	1	0	0	0
Fluoridation	20	19	1	16	15	1
Disinfection with NaOCI	52	30	22	13	9	4
Pre & post disinfection with NaOCI	6	3	3	3	2	1
Disinfection by chlorine gas	24	20	4	13	11	2
Pre & post disinfection with chlorine gas	18	18	0	8	8	0
Disinfection with CaOCl	2	1	1	0	0	0
Pre & post disinfection with CaOCl	0	0	0	0	0	0
Disinfection by ultra-violet	0	0	0	0	0	0
Supplemental chlorination	0	0	0	0	0	0
Disinfection by combined chlorination	1	1	0	1	1	0
Activated Carbon	9	8	1	5	4	1
Disinfection	158	108	50	37	30	7
Total Facilities	198	114	84	 39	29	10

Table 2: Summary of Treatment Processes for Selected Sites

			ATHABASCA	
Type of Sample		Raw	10-Ang-94 Treated	Distributed
Temperature	deg C	19.2	18.8	19.2
pH	-0 -	8.2	7.8	7.5
Conductivity	Miro ohms/c	250	350	350
Farbidity	NTU	214	0.39	1.2
Total Chlorine	mg/L	NA	0.8	0.53
Free Chlorine	mg/L	NA	0.71	0.41
Color	TCU	90	0	0
Ammonia	mg/L	0.15	, in the second s	1
	me/r	none	chiorine	chlorine
Ddour Type		0	l	1 CERIOCENE
Dolour Intensity	out of 3			1
Flavour Profile	out of 10	NA	7.5	7.5
lavour Comment			1	l I
	_	ammonia number di	te to turb interferance	
HMs	ug/L	-	42	36
Total Coliforms	cfu/100ml	<1	<1	<1
Fecal Coliforms	cfu/100ml	50	<1	<1
Isterotropic Plate Count (48 hr)	cfu/1 mL	truic	1	1
leterotropic Plate Count (7 days)	cfu/1 mL	1706	3	17
lebsiella	cfu/100ml	<1	<1	<1
ecal Streptococcus	cfn/100ml	84	<1	<1
Aolds	cfu/1 mL	17	<1	<1
(reast	cfu/1 mL	-	<1	<1
ron Reducing Bacteria	org/1 mL	>110	<0.3	<0.3
		15	<0.3	<0.3
ulfate Reducing Bacteria	org/1 mL			<0.3
sulfite Reducing Bacteria	org/1 mL	>110	<0.3	
hiosulfate Reducing Bacteria	org/i mL	>110	<0.3	<0.3
ron Oxidizing Bacteria	org/1 mL	>110	<0.3	<0.3
				1
lant Operations		L	1	
erson hours to operate plant per v	veek		28	
& O problems			yes	
•			in spring	
laránesa	high	ł	170	
Les Gatobe	low		120	
	20 W		high in winter	
angel Filter Backmach			ngn m wniter no	
locycel Filter Backwash			TO .	
menibution system flushing progr	am.		yes	
		l		
Storage	m3	1		
Average Daily Production	m3	1		
Ave. Theoretical Hydraulic Detents	on, hr.			
Treatment.		L		Свер
Weekly Sampling Routine		Raw	Treated	
ree CIZ				
iree Cl2 Ional Cl2				
otal Ci2				
otal Cl2 urbidity				
otal Cl2 urbidity emperature				
seal Cl2 mbidity mperature H				
ocal C12 arbidity angerature H Ioride				
otal Cl2 arbidity mugasture H Joride Zolor				
stal C12 arbitäty armperature H Joride Jolor fardness				
ocal C12 urbidity emperature H Joride Solor incrdness				
scal C12 arbitekty magenature H Ioride Jolor Iardness An				
ocal C12 whichty mperature H Ioride Jolor Iardness An e				
ocal C12 whichty mperature H Ioride Jolor Iardness An e				
ocal C12 urbickty emperature H Noticle Solor Solor fan ée Ukalimity	per month			
ocal C12 mbidity mpgesture H Ioride Jolor isrdness An is is is is is				
ocal C12 urbidity emperature H Joride Jolor iardness Ma Malminy Vicrobial Themical Doxing and Operating S1			77	
ocal C12 urbidity emperature H Joride Jolor iardness Ma Malminy Vicrobial Themical Doxing and Operating S1	THERV		77 60	
ocal C12 urbidity emperature H Joride Jolor iardness Ma Malminy Vicrobial Themical Doxing and Operating S1	ralegy current low		60	
ocal C12 arbidity armperature H Joride Jolor Jardness An *e Ukalinity Aicrobial Zhemical Doxing and Operating S1	rategy current low high		60 400	
ocal C12 arbidity armperature H Joride Jolor Jardness An *e Ukalinity Aicrobial Zhemical Doxing and Operating S1	rategy current low high type		60 400 alum	
ocal C12 arbitity emperature DH Joride Color Hardness Mn *e Alkalimity <u>vicrobial</u> <u>Chemical Dosing and Operating St</u> Coagulants	rategy current low high type adjustment		60 400 alum based on turbidity	-
ocal C12 arbidity armperature H H Joride Jolor iardness An * * Vicalinity <u>Aicrobial</u> <u>Inemical Dosing and Operating St</u> Coggulants	rategy current low high type adjustment current		60 400 alum based on turbidity 0.29	
ocal C12 arbitity emperature DH Joride Color Hardness Mn *e Alkalimity <u>vicrobial</u> <u>Chemical Dosing and Operating St</u> Coagulants	rategy current low high type adjustment current low		60 400 alum based on turbidity 0.29 0.2	
scal C12 arbitisty armgestature H Joride Jolor Iardness fa ie Jkalinity <u>Aicrobial</u> <u>Themical Doxing and Operating St</u> Coggulants	rategy current low high type adjustment current		60 400 alum based on turbidity 0.29	4
ocal C12 arbitity emperature DH Joride Color Hardness Mn *e Alkalimity <u>vicrobial</u> <u>Chemical Dosing and Operating St</u> Coagulants	rategy current low high type adjustment current low high		60 400 alum based on turbidity 0.29 0.2	
ocal C12 arbidity armperature H H Joride Jolor iardness An * * Vicalinity <u>Aicrobial</u> <u>Inemical Dosing and Operating St</u> Coggulants	rategy current low high type adjustment current low high type		60 400 alum based on tarbidity 0.29 0.2 0.5 7	der
ocal C12 mrbidity emperature HI Floride Color incriness Mn * e Alkalimity Microbial <u>Themical Dosing and Operating St</u> Coegulants	rategy current low high type adjustment current low high type adjustment		60 400 alum based on turbidity 0.29 0.2 0.5 ? based on floc chara	cler
scal C12 arbidity armgestature H Ioride Jolor fardness An ie Ukalimity dicrobial <u>Themical Doging and Operating St</u> Coggulants	ratery current low high djustment current low high djustment current		60 400 alum based on turbidity 0.29 0.2 0.5 ? based on floc chara 48	cler
scal C12 arbidity armgestature H Ioride Jolor fardness An ie Ukalimity dicrobial <u>Themical Doging and Operating St</u> Coggulants	rategy current low high type adjustment current low high type adjustment current iow		60 400 alum based on turbidity 0.29 0.5 ? based on floc chara 48 30	cler
ocal C12 mrbidity emperature HI Floride Color incriness Mn * e Alkalimity Microbial <u>Themical Dosing and Operating St</u> Coegulants	rategy current low high type adjustment current low high type adjustment current low high		60 400 alum based on turbidity 0.29 0.5 ? based on floc chara 48 30 100	cler
scal C12 arbidity armgestature H Ioride Jolor fardness An ie Ukalimity dicrobial <u>Themical Doging and Operating St</u> Coggulants	rategy current low high type adjustment current low high type adjustment current iow		60 400 alum based on turbidity 0.29 0.2 0.5 ? based on floc chara 48 30	cler
ocal C12 arbidity armperature H H Joride Jolor iardness An * e Ukalinity <u>Aicrobial</u> <u>Chemical Dosing and Operating St</u> Congulants Yolymer	rategy current low high type adjustment current low high type adjustment current low high		60 400 alum based on turbidity 0.29 0.5 ? based on floc chara 48 30 100	cler
ocal C12 arbidity armperature H H Joride Jolor iardness An * e Ukalinity <u>Aicrobial</u> <u>Chemical Dosing and Operating St</u> Congulants Yolymer	rzzegy current low high type adjustment current low high type adjustment current low high sdjustment current current		60 400 alum based on turbidity 0.29 0.2 7 based on floc chara 48 30 100 based on alum 1.12	der
ocal C12 articity articity H Joride Jolor Jardness M Alkalimity <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkalimity</u> <u>Alkal</u>	relegy current low high type adjustment current low high adjustment current low high adjustment current low how how how how how how how how how h		60 400 alum based on turbidity 0.29 0.5 ? based on floc chara 48 30 100 based on alum 1.12	cler
ocal C12 arbidity armperature H H Joride Jolor iardness An * e Ukalinity <u>Aicrobial</u> <u>Chemical Dosing and Operating St</u> Congulants Yolymer	rzzegy curreni low high type adjustment current low high type adjustment curreni low high high high high		60 400 alum based on turbidity 0.29 0.5 7 based on floc chara 48 30 100 based on alum 1.12 1 2.7	cler
ocal C12 arbidity armperature H H Joride Jolor iardness An * e Ukalinity <u>Aicrobial</u> <u>Chemical Dosing and Operating St</u> Congulants Yolymer	rzzegy current low high type adjustment current low high type adjustment current low high bigh bigh tow high type type type type		60 400 alum based on turbidity 0.29 0.5 7 based on floc chara 48 30 100 based on alum 1.12 1 2.7 C12 gas	cler
ocal C12 arbidity arbidity H Joride Color iardness Mn e Alkalimity <u>Microbial</u> <u>Themical Docting and Operating St</u> Cosgulants Polymer Soda Ash Disinfection	relegy current low high type adjustment current low high type adjustment current low high adjustment current low high type adjustment		60 400 alum based on turbidity 0.29 0.5 ? based on floc chara 48 30 100 based on alum 1.12 1 2.7 Cl2 gas based on residual	cler
	rzzegy current low high type adjustment current low high type adjustment current low high bigh bigh tow high type type type type		60 400 alum based on turbidity 0.29 0.5 7 based on floc chara 48 30 100 based on alum 1.12 1 2.7 C12 gas	cler
ocal C12 arbidity armgesture H Joride Jolor iardness An e Ultalimity <u>Aicrobial</u> <u>Themical Doxing and Operating St</u> Coagulantz Polymer Soda Ash	relegy current low high type adjustment current low high type adjustment current low high adjustment current low high type adjustment		60 400 alum based on turbidity 0.29 0.5 ? based on floc chara 48 30 100 based on alum 1.12 1 2.7 Cl2 gas based on residual	cler
ocal C12 arbidity arbidity H Joride Color iardness Mn e Alkalimity <u>Microbial</u> <u>Themical Docting and Operating St</u> Cosgulants Polymer Soda Ash Disinfection	reserv current low high type adjustment current low high type adjustment current low high adjustment current low high type adjustment current low high bigh bigh type adjustment current low		60 400 alum based on turbidity 0.29 0.5 ? based on floc chara 48 30 100 based on alum 1.12 1 2.7 Cl2 gas based on residual 4	cler
ocal C12 arbidity arbidity H Joride Color iardness Mn e Alkalimity <u>Microbial</u> <u>Themical Docting and Operating St</u> Cosgulants Polymer Soda Ash Disinfection	relegy current low high type adjustment current low high type adjustment current low high adjustment current low high type adjustment current low high type high high high high high high high hig		60 400 alum based on turbidity 0.29 0.5 ? based on thor chara 48 30 100 based on alum 1.12 1 2.7 Cl2 gas based on residual 4 0.1 70	cler
ocal C12 arbidity armgesture H Joride Jolor iardness An e Ultalimity <u>Aicrobial</u> <u>Themical Doxing and Operating St</u> Coagulantz Polymer Soda Ash	relegy current low high type adjustment current low high type adjustment current low high adjustment current low high type adjustment current low high type		60 400 alum based on turbidity 0.29 0.2 0.5 7 based on floc chara 48 30 100 based on floc chara 48 30 100 based on alum 1.12 1 2.7 CC12 gas based on residual 4 0.1 70 PAC	
ocal C12 mrbidity emperature H Ploride Color farchess M Alkalmity Vicrobial <u>Themical Docimy and Operating St</u> Congulants Polymer Soda Ash Disinfection F & O control	relegy current low high type adjustment current low high type adjustment current low high sdjustment current low high type adjustment current low high type adjustment current low		60 400 alum based on turbidity 0.29 0.5 7 based on floc chara 48 30 100 based on floc chara 48 30 100 based on floc chara 48 0.1 7 7 1.12 1 2.7 6.22 gas based on residual 4 0.1 70 PAC based on taste and o	
ocal C12 mbidity mbidity semperature H loride Jolor iardness An ie Ukalimity Accrobial <u>Themical Docing and Operating St</u> Congulants Polymer	relegy current low high type adjustment current low high type adjustment current low high type adjustment current low high type djustment current low high type adjustment current low		60 400 alum based on turbidity 0.29 0.5 ? based on floc chara 48 30 100 based on alum 1.12 1 2.7 Cl2 gas based on residual 4 0.1 70 PAC based on taste and 6 0.8	
ocal C12 arbidity arbidity H Joride Color iardness Mn e Alkalimity <u>Microbial</u> <u>Themical Doxing and Operating St</u> Cosgulants Polymer Soda Ash Disinfection	rzzegy current low high type adjustment current low high type adjustment current low high adjustment current low high type adjustment type adjustment type adjustment low high type adjustment low		60 400 alum based on turbidity 0.29 0.5 7 based on floc chara 48 30 100 based on floc chara 48 30 100 based on alum 1.12 1 2.7 CC12 gas based on residual 4 0.1 70 PAC based on taste and 0 0.8	
ocal C12 mbidity mbidity semperature H loride Jolor iardness An ie Ukalimity Accrobial <u>Themical Docing and Operating St</u> Congulants Polymer	relegy current low high type adjustment current low high type adjustment current low high type adjustment current low high type djustment current low high type adjustment current low		60 400 alum based on turbidity 0.29 0.5 ? based on floc chara 48 30 100 based on alum 1.12 1 2.7 Cl2 gas based on residual 4 0.1 70 PAC based on taste and 6 0.8	
seal C12 arbidity argentature H Ioride Jolor fardness An e Ukalimity dicrobial <u>Themical Doging and Operating St</u> Congulator Polymer Holymer	relegy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type		60 400 alum based on turbidity 0.29 0.5 7 based on floc chara 48 30 100 based on floc chara 48 30 1.12 1 2.7 Cl2 gas based on residual 4 0.1 70 PAC based on base and 0 0.8 0.8	
sal Cl2 arbidity mpersture H lotide olor ardness fin e likalmity ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial ficrobial f	rzzegy current low high type adjustment current low high type adjustment current low high adjustment current low high type adjustment type adjustment type adjustment low high type adjustment low		60 400 alum based on turbidity 0.29 0.5 7 based on floc chara 48 30 100 based on floc chara 48 30 100 based on alum 1.12 1 2.7 C12 gas based on residual 4 0.1 70 PAC based on taste and 0 0.8	

			BARRHEAD 22-Jun-94	
Type of Sample		Raw	Treated	Distributed
Temperature	deg C -	15.8	15.8	13.1
pH		8.1	8.1	8.2
Conductivity	Miro ohms/c	400	630	600
Turbidity	NTU	57	0.38	0.55
Total Chlorine	mg/L	NA	1.05	0.41
Free Chlorine	mg/L	NA	0.8	0.13
Color	TCU	155	20	20
Ammonia	mg/L	0.058	-	
Odour Type	1192	sweet smell	chlorine	
Odour Intensity	out of 3	0.1	2	E
Flavour Profile	out of 10	NA	5	E
Flavour Comment	04.01.10		ľ	l'
THMs	ug/L			1
	99.0	-	1	1 ⁻
Total Coliforns	cfu/100ml			
Fecal Colifornit	cfu/100ml	6	<1	
Heterotropic Plate Count (48 hr)		119		<1
	cfu/1 mL		2	3
Heterotropic Plate Count (7 days)		233	2	44
Klebsiella	cfu/100ml	-	-	-
Fecal Streptococcus	cfu/100ml	16	<1	0
Molds	cfu/l mL	4	<1	<1
Yeast	cfu/l mL	143	<1	confl
Iron Reducing Bacteria	org/1 mL	110	<0.3	0.4
Sulfate Reducing Bacteria	org/1 mL	46	0.4	<0.3
Sulfite Reducing Bacteria	org/1 mL	9	<0.3	<0.3
Thiosulfate Reducing Bacteria	org/1 mL	>110	2	>110
Iron Oxidizing Bacteria	org/i mL	110	0.4	2
non on any contain	01911111		V.+	-
Plant Operations				
Person hours to operate plant per v	veek		80	
reson nour to optime part part			water and wastewate	
T & O problems			Yes	5 k
1 as O problems			water tainted in raw	
Hardness	hish		water binaco in raw	WHET PERVOUT
Heraness	high		-	
	low		•	
			-	
Recycel Filter Backwash			ло	
	Real Provide Land	1	?	
Distribution system flushing progra		1		
Storage	m3		241	
Storage Average Daily Production	ጠ3 ጠ3		241 1950	
Storage Average Daily Production	ጠ3 ጠ3			
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti	ጠ3 ጠ3		1950 3.0	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment	ጠ3 ጠ3		1950 3.0 et/CgA/Flc/Ch/pH/Flt	1/Rf11/C12
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine	ጠ3 ጠ3	RWR/A	1950 3.0	vRfii/Cl2
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine Iree CI2	ጠ3 ጠ3		1950 3.0 er/CgA/Flo/Ch/pH/Flt Treated 7	v/Rf11/C12
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine	ጠ3 ጠ3		1950 3.0 et/CgA/Flc/Ch/pH/Flt	vRfil/Cl2
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12	ጠ3 ጠ3		1950 3.0 er/CgA/Flo/Ch/pH/Flt Treated 7	vRfti/C12
Storage Average Daily Production. Ave: Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 total C12 tarbidity	ጠ3 ጠ3		1950 3.0 er/CgA/Flc/Ch/pH/Flt Treated 7 7	vRflvCl2
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly <u>Sampling Routine</u> free C12 total C12 total C12 turbidity	ጠ3 ጠ3		1950 3.0 er/CgA/Flc/Ch/pH/Flt Treated 7 7	v/Rflu/Cl2
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 totabidity temperature pH	ጠ3 ጠ3		1950 3.0 er/CgA/Flc/Chr/pH/Ftc Treated 7 7 7 7 7 7	vRf11/C12
Storage Average Daily Production. Ave: Theoretical Hydraulic Detenti Treatment. <u>Weekly Sampling Routine</u> free C12 total C12 total C12 tarbidity temperature pH Floride	ጠ3 ጠ3		1950 3.0 er/CgA/Flo/Cls/pH/Flt Treated 7 7 - 7 0.25	<u>√ℝflvCl2</u>
Storage Average Daily Production Ave. Theoretical Hydraubic Detenti Treatment Weekly Samphing Routine free C12 total C12 total C12 total C12 tarbidity temperature pH Floride Color	ጠ3 ጠ3		1950 3.0 er/CgA/Flc/Chr/pH/Ftc Treated 7 7 7 7 7 7	√R£I⊮C <u>12</u>
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 tatibidity temperature pH Floride Color Hardness	ጠ3 ጠ3		1950 3.0 er/CgA/Flo/Cls/pH/Flt Treated 7 7 - 7 0.25	√Rfl⊮Cl2
Storage Average Daily Production. Ave: Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 torbidity temperature pH Floride Color Hardness Mn	ጠ3 ጠ3		1950 3.0 er/CgA/Flo/Cls/pH/Flt Treated 7 7 - 7 0.25	<u>√Rflı/C12</u>
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Samphing Routine free C12 total C12 tarticidity temperature pH Floride Color Hardness Mn Fe	ጠ3 ጠ3		1950 3.0 er/CgA/Flo/Cls/pH/Flt Treated 7 7 - 7 0.25	vRfit/C12
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Samphing Routine free C12 total C12 tarticidity temperature pH Floride Color Hardness Mn Fe	ጠ3 ጠ3		1950 3.0 er/CgA/Flo/Cls/pH/Flt Treated 7 7 - 7 0.25	<u>√Rflı/C[2</u>
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free CI2 torbidity temperature pH Floride Color Hardness Mn Fe Alltalimity	m3 m3 on. hr.		1950 3.0 er/CgA/Flo/Cls/pH/Flt Treated 7 7 - 7 0.25	J/RflJ/C12
Storage Average Daily Production Ave. Theoretical Hydraubic Detenti Treatment Weekly Samphing Routine free C12 total C12 total C12 total C12 total C12 control C12 total C12 control C12 total C12 t	m3 m3 on, hr.		1950 3.0 er/CgA/Flo/Cls/pH/Flt Treated 7 7 - 7 0.25	vRflv/Cl2
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 taubidity temperature pH Floride Color Hardness Mn Fe Altakinity Microbial Chemical Dosing and Operating St	m3 m3 on, hr. per month Telesy		1950 3.0 er/CgA/Flo/Clr/pH/Flo 7 7 7 7 0.25 7 - - 4	<u>VRflvCl2</u>
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 taubidity temperature pH Floride Color Hardness Mn Fe Altakinity Microbial Chemical Dosing and Operating St	m3 m3 on, hr.		1950 3.0 er/CgA/Flo/Cls/pH/Flt Treated 7 7 - 7 0.25	J/RflJ/C12
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 taubidity temperature pH Floride Color Hardness Mn Fe Altakinity Microbial Chemical Dosing and Operating St	m3 m3 on, hr. per month mesy current low		1950 3.0 er/Cg_A/Flc/Chr/pH/Ftc 7 7 7 0.25 7 - - 4 137 125	<u>vRflvCl2</u>
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 taubidity temperature pH Floride Color Hardness Mn Fe Altakinity Microbial Chemical Dosing and Operating St	m3 m3 on, hr. per month		1950 3.0 er/CgA/Flo/Clr/pH/Fto 7 7 7 7 0.25 7 7	<u>ງRflvCl2</u>
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 taubidity temperature pH Floride Color Hardness Mn Fe Altakinity Microbial Chemical Dosing and Operating St	m3 m3 on, hr. per month		1950 3.0 er/Cg_A/Flc/Chr/pH/Ftc 7 7 7 0.25 7 - - 4 137 125	<u>vRflv/Cl2</u>
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 taubidity temperature pH Floride Color Hardness Mn Fe Altakinity Microbial Chemical Dosing and Operating St	m3 m3 on, hr. per month		1950 3.0 er/CgA/Flo/Clr/pH/Fto 7 7 7 7 0.25 7 7	<u>√Rflı/Cl2</u>
Storage Average Daily Production Ave. Theoretical Hydraulic Desenti Treatment Weekly Sampling Routine free C12 total C12 tarticidity temperature pH Floride Color Hardness Mn Fre Allalimity Microbial Chemical Dosing and Operating St Coomlants	m3 m3 on, hr. per month		1950 3.0 Trested 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	<u>VRflvC12</u>
Storage Average Daily Production Ave. Theoretical Hydraubic Desenti Treatment Weekly Samphing Routine free C12 coloci C12 transidity termperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St Coomlants	m3 m3 on, hr. per month mesty current low high type adjustment		1950 3.0 er/CgA/Flc/Ch/Ph/Ftc 7 7 7 0.25 7 - - - 4 137 125 180 alum based on turbidity	<u>vRflvCl2</u>
Storage Average Daily Production Ave. Theoretical Hydraulic Desenti Treatment Weekly Sampling Routine free C12 total C12 tarticidity temperature pH Floride Color Hardness Mn Fre Allalimity Microbial Chemical Dosing and Operating St Coomlants	m3 m3 m3 on, hr.		1950 3.0 Treated 7 7 7 0.25 7 - - - - - - - - - - - - - - - - - -	<u>vRflvCl2</u>
Storage Average Daily Production Ave. Theoretical Hydraubic Detenti Treatment Weekly Samphing Routine free C12 total C12 total C12 total C12 total C12 total C12 construction Free C12 color Hardness Min Fe Allrakimity Microbial	m3 m3 on, hr. per month		1950 3.0 Trested 7 7 7 7 7 0.25 7 4 137 125 180 alum based on turbidity 0.3	vRfii/Cl2
Storage Average Daily Production Ave. Theoretical Hydraulic Desenti Treatment Weekly Sampling Routine free C12 total C12 tarticidity temperature pH Floride Color Hardness Mn Fre Allalimity Microbial Chemical Dosing and Operating St Coomlants	m3 m3 on, hr. per month messy current low high type adjustment current low high		1950 3.0 Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	<u>ນRflvCl2</u>
Storage Average Daily Production Ave. Theoretical Hydraulic Desenti Treatment Weekly Sampling Routine free C12 total C12 tarticidity temperature pH Floride Color Hardness Mn Fre Allalimity Microbial Chemical Dosing and Operating St Coomlants	m3 m		1950 3.0 er/Cg_A/Flc/Chr/pH/Ftc 7 7 7 0.25 7 - - - 4 137 125 180 alum based on turbidity 0.3 0.4	<u>vRflvCl2</u>
Storage Average Daily Production Ave. Theoretical Hydraubic Desenti Treatment Weekly Samphing Routime free C12 total	m3 m3 on, hr. per month metery current low high type adjustment current low high type adjustment adjustment		1950 3.0 tr/CgA/Flc/Ch/Ph/Flc 7 7 7 7 1.2 4 137 125 180 alum based on turbidity 0.3 0.4 ?	<u>vRflv/Cl2</u>
Storage Average Daily Production Ave. Theoretical Hydraubic Desenti Treatment Weekly Samphing Routime free C12 total	m3 m3 m3 on, hr		1950 3.0 Trested 7 7 7 7 7 7 7 7 7 7 7 7 7	<u>vRflv/Cl2</u>
Storage Average Daily Production Ave. Theoretical Hydraubic Desenti Treatment Weekly Samphing Routime free C12 total	m3 m3 m3 on, hr. per month merec current low high type adjustment current low high type adjustment current		1950 3.0 er/CgA/Flc/Ch/Ph/Ftc Treated 7 7 0.25 7 - - 4 137 125 180 alum based on turbidity 0.3 0.4 ? fairly constant 105 90 150	vRflı/Cl2
Storage Average Daily Production. Ave. Theoretical Hydraubic Detenti Treatment Weekly Samphing Routine tree C12 cotal C12 tarbidity temperature pH Floride Color Hardness Mn Fe Allualimity Microbial Chemical Dosing and Operating St Coemiants	m3 m3 m3 on, hr. per month Telegy current low high type adjustment current low high type adjustment low high type adjustment		1950 3.0 er/CgA/Flc/Chr/pH/Ftc 7 7 7 0.25 7 - - - - - - - - - - - - -	<u>vRflvCl2</u>
Storage Average Daily Production Ave. Theoretical Hydraubic Desenti Treatment Weekly Samphing Routime free C12 total	m3 m3 on, hr. per month setstv current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current curent current current current current current current cu		1950 3.0 Treated 7 7 7 7 7 7 7 0.25 7 4 137 125 180 atum based on turbidity 0.3 0.4 7 fairly constant 105 po 150 based on pH 2.4	<u>vRflv/Cl2</u>
Storage Average Daily Production. Ave. Theoretical Hydraubic Detenti Treatment Weekly Samphing Routine tree C12 cotal C12 tarbidity temperature pH Floride Color Hardness Mn Fe Allualimity Microbial Chemical Dosing and Operating St Coemiants	m3 m3 m3 on, hr. per month sterv current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low		1950 3.0 er/CgA/Flc/Ch/Ph/Flc Treated 7 7 - 7 0.25 7 - - 4 137 125 180 alum based on turbidity 0.3 0.4 ? fairly constant 105 90 150 based on pH 2.4	<u>vRflv/Cl2</u>
Storage Average Daily Production. Ave. Theoretical Hydraubic Detenti Treatment Weekly Samphing Routine tree C12 cotal C12 tarbidity temperature pH Floride Color Hardness Mn Fe Allualimity Microbial Chemical Dosing and Operating St Coemiants	m3 m3 m3 on, hr. per month retegy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high high high high high high high hig		1950 3.0 Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	<u>vRflvCl2</u>
Storage Average Daily Production. Ave. Theoretical Hydraubic Detenti Treatment Weekly Samphing Routine tree C12 cotal C12 tarbidity temperature pH Floride Color Hardness Mn Fe Allualimity Microbial Chemical Dosing and Operating St Coemiants	m3 m3 m3 on, hr. per month <u>setsy</u> current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type		1950 3.0 rr/CgA/Flc/Ch/Ph/Flc 7 7 7 7 7 0.25 7 4 137 125 180 atum based on turbidity 0.3 0.4 7 fairly constant 105 based on pH 2.4 2 3 C(22 gas	vRflv/Cl2
Storage Average Daily Production Ave. Theoretical Hydraubic Desenti Treatment Weekly Samphing Routine tree C12 coloci C12 transidity termperature pH Floride Color Hardness Mn Fe Alladimity Microbial Chemical Dosing and Operating St Coemiants Polymer Soda Ash Disinfection	m3 m3 m3 on, hr. per month measurement current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type type type type type type type type		1950 3.0 Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	<u>vRflvCl2</u>
Storage Average Daily Production Ave. Theoretical Hydraubic Desenti Treatment Weekly Samphing Routine tree C12 coloci C12 transidity termperature pH Floride Color Hardness Mn Fe Alladimity Microbial Chemical Dosing and Operating St Coemiants Polymer Soda Ash Disinfection	m3 m3 m3 on, hr. per moath low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current current low		1950 3.0 rr/CgA/Flc/Ch/Ph/Flc 7 7 7 7 7 0.25 7 4 137 125 180 atum based on turbidity 0.3 0.4 7 fairly constant 105 based on pH 2.4 2 3 C(22 gas	vRflv/Cl2
Storage Average Daily Production. Ave. Theoretical Hydraubic Detenti Treatment Weekly Samphing Routine tree C12 cotal C12 tarbidity temperature pH Floride Color Hardness Mn Fe Allualimity Microbial Chemical Dosing and Operating St Coemiants	m3 m3 m3 on, hr. per month <u>setex</u> current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high low high low high low high current low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high high high high high high high hig		1950 3.0 rr/CgA/Flc/Ch/Ph/Flc 7 7 7 7 7 1.25 180 atum based on turbidity 0.3 0.4 7 fairly constant 105 90 150 based on pH 2.4 2.3 C(22 gas based on residiual	<u>vRflvCl2</u>
Storage Average Daily Production Ave. Theoretical Hydraubic Desenti Treatment Weekly Samphing Routine tree C12 coloci C12 transidity termperature pH Floride Color Hardness Mn Fe Alladimity Microbial Chemical Dosing and Operating St Coemiants Polymer Soda Ash Disinfection	m3 m3 on, hr. per month messy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high bigh type adjustment current low high bigh type adjustment current low high type adjustment current low high bigh type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type type type type type type type type		1950 3.0 rr/CgA/Flc/Ch/Ph/Flc 7 7 7 7 7 0.25 7 4 137 125 180 atum based on turbidity 0.3 0.4 7 fairly constant 105 based on pH 2.4 2 3 C(22 gas	νRflνC12
Storage Average Daily Production Ave. Theoretical Hydraubic Desenti Treatment Weekly Samphing Routine tree C12 coloci C12 transidity termperature pH Floride Color Hardness Mn Fe Alladimity Microbial Chemical Dosing and Operating St Coemiants Polymer Soda Ash Disinfection	m3 m3 m3 on, hr. per month <u>setex</u> current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high low high low high low high current low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high high high high high high high hig		1950 3.0 rr/CgA/Flc/Ch/Ph/Flc 7 7 7 7 7 1.25 180 atum based on turbidity 0.3 0.4 7 fairly constant 105 90 150 based on pH 2.4 2.3 C(22 gas based on residiual	vRflv/Cl2
Storage Average Daily Production Ave. Theoretical Hydraubic Desenti Treatment Weekly Samphing Routine tree C12 coloci C12 transidity termperature pH Floride Color Hardness Mn Fe Alladimity Microbial Chemical Dosing and Operating St Coemiants Polymer Soda Ash Disinfection	m3 m3 on, hr. per month messy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high bigh type adjustment current low high bigh type adjustment current low high type adjustment current low high bigh type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type type type type type type type type		1950 3.0 rr/CgA/Flc/Ch/Ph/Flc 7 7 7 7 7 1.25 180 atum based on turbidity 0.3 0.4 7 fairly constant 105 90 150 based on pH 2.4 2.3 C(22 gas based on residiual	<u>vRflvCl2</u>
Storage Average Daily Production Ave. Theoretical Hydraubic Desenti Treatment Weekly Samphing Routine tree C12 coloci C12 transidity termperature pH Floride Color Hardness Mn Fe Alladimity Microbial Chemical Dosing and Operating St Coemiants Polymer Soda Ash Disinfection	m3 m3 on, hr. m3 on, h		1950 3.0 Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	νRflν/Cl2
Storage Average Daily Production Ave. Theoretical Hydraubic Desenti Treatment Weekly Samphing Routime free C12 Local C12 tarbidity temperature pH Floride Color Hardness Min Fe Allasimity Microbial Chemical Dosing and Operating St Computational Computational Computational Computational Computational Soda Ash Disinfection	m3 m3 m3 on, hr. per month stear current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high digh type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low		1950 3.0 rr/CgA/Flc/Ch/Ph/Flc 7 7 7 7 1.25 180 atum based on turbidity 0.3 0.4 ? faily constant 105 90 150 based on pH 2.4 2.3 Cl2 gas based on residiual	<u>vRflvCl2</u>
Storage Average Daily Production Ave. Theoretical Hydraubic Desenti Treatment Weekly Samphing Routime free C12 Local C12 tarbidity temperature pH Floride Color Hardness Min Fe Allasimity Microbial Chemical Dosing and Operating St Computational Computational Computational Computational Computational Soda Ash Disinfection	m3 m3 m3 on, hr. per month messy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type current low high type current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current curent current current cu		1950 3.0 er/CgA/Flc/Ch/Ph/Flc Treated 7 7 - 7 0.25 7 - 4 137 125 180 abura based on turbidity 0.3 0.4 7 faitly constant 105 90 150 based on pH 2.4 3 Cl2 gas based on residiual - - - 1	νRflνC12
Storage Average Daily Production Ave. Theoretical Hydraubic Desenti Treatment Weekly Samphing Routime free C12 Local C12 tarbidity temperature pH Floride Color Hardness Min Fe Allasimity Microbial Chemical Dosing and Operating St Computational Computational Computational Computational Computational Soda Ash Disinfection	m3 m3 on, hr. per month setsy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low		1950 3.0 Trested 7 7 7 7 7 7 7 7 7 7 7 7 7	VRfl/Cl2

pH Conductivity Turbidaty Total Chlorime Free Chlorine Color Ammonia Odour Type Odour Intensity Flavour Profile Flavour Comment THMS Total Coliforms Fecal Coliforms Heterotropic Plate Count (48 hr) Heterotropic Plate Count (7 days) Klebsiella Fecal Streptococcus Molds Yeast Iron Reducing Bacteria Sulfate Reducing Bacteria Sulfate Reducing Bacteria Sulfate Reducing Bacteria Iron Oxidizing Bacteria Plant Operations Person hours to operate plant per w T & O problems Hardness	deg C Miro ohms/c NTU mg/L mg/L TCU mg/L out of 3 out of 10 ug/L chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml chu/100ml ch	Raw - 6.9 6.10 0.16 NA NA NA 10 - - - - - - - - - - - - -	rul-94 Distributed - 7.2 610 0.22 NA NA 10 - - - - - - - - - - - - - - - - - -
Temperature pH Conductivity Turbidity Total Chlorine Free Chlorine Color Annanonia Odour Type Odour Intensity Flavour Profile Flavour Comment THMS Total Coliforms Fecal Coliforms Fecal Coliforms Fecal Coliforms Fecal Coliforms Fecal Coliforms Heterotropic Plate Count (48 hr) Heterotropic Plate Count (7 daya) Klebaiella Fecal Streptococcus Molds Yeast Iron Reducing Bacteria Sulfate Reducing Bacteria Sulfate Reducing Bacteria Sulfate Reducing Bacteria Sulfate Reducing Bacteria Thiosulfate Reducing Bacteria Thoro Oxidizing Bacteria Person hours to operate plant per wr T & O problems Hardness	Miro ohms/c Miro ohms/c MTU mg/L TCU mg/L out of 3 out of 10 ug/L cfu/100ml cfu/1 mL cfu/100ml cfu/1 mL cfu/100ml cfu/1 mL cfu/1 mL org/1 mL org/1 mL org/1 mL org/1 mL	- 6.9 610 0.16 NA 10 - - - - - - - - - - - - -	- 7.2 610 0.22 NA 10 - - - - - - - - - - - - -
pH Conductivity Turbidity Total Chlorime Free Chlorine Color Ammonia Odour Type Odour Intensity Flavour Profile Flavour Comment THMS Total Coliforms Fecal Coliforms Fecal Coliforms Heterotropic Plate Count (48 hr) Heterotropic Plate Count (7 days) Klebsiella Fecal Streptococcus Molds Yeast Iona Reducing Bacteria Sulfate Reducing Bacteria Sulfate Reducing Bacteria Sulfate Reducing Bacteria Inoa Oxidizing Bacteria Plant Operations Person hours to operate plant per w T & O problems Hardness	Miro ohms/c Miro ohms/c MTU mg/L TCU mg/L out of 3 out of 10 ug/L cfu/100ml cfu/1 mL cfu/100ml cfu/1 mL cfu/100ml cfu/1 mL cfu/1 mL org/1 mL org/1 mL org/1 mL org/1 mL	610 0.16 NA NA 10 - - - - - - - - - - - - -	610 0.22 NA NA 10 - - - - - - - - - - - - -
Conductivity Turbidity Total Chlorine Color Ammonia Odour Type Odour Intensity Flavour Profile Flavour Comment THMS Total Coliforms Focal Coliforms Focal Coliforms Focal Coliforms Focal Coliforms Heterotropic Plate Count (7 daya) Klebaiella Focal Streptococcus Molds Yeast Iron Reducing Bacteria Sulfate Reducing Bacteria Sulfate Reducing Bacteria Sulfate Reducing Bacteria Itos Unider Reducing Bacteria Itos Operations Prate Operations Prate Operations Hardness	NTU mg/L mg/L mg/L tCU mg/L ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml	610 0.16 NA NA 10 - - - - - - - - - - - - -	610 0.22 NA NA 10 - - - - - - - - - - - - -
Turbids) Total Chlorine Free Chlorine Color Ammonia Odour Type Odour Intensity Flavour Profile Flavour Comment THMS Total Coliforms Fecal Coliforms Heterotropic Plaze Count (48 hr) Heterotropic Plaze Count (48 hr) Heterotropic Plaze Count (48 hr) Heterotropic Plaze Count (7 days) Klebaiella Heterotropic Plaze Count (48 hr) Heterotropic Plaze Count (7 days) Klebaiella Stoffate Reducing Bacteria Sulfate Reducing Bacteria Sulfate Reducing Bacteria Sulfate Reducing Bacteria Sulfate Reducing Bacteria Thiosulfate Reducing Bacteria Iron Oxidizing Bacteria Planet Operations Person hours to operate plant per wr T & O problems Hardness	NTU mg/L mg/L mg/L tCU mg/L ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml ctu/100ml	0.16 NA 10 - - - - - - - - - - - - - - - - - -	0.22 NA NA 10 - - - - - - - - - - - - - - - - - -
Total Chlorine Free Chlorine Color Ammonia Odour Intensity Flavour Profile Flavour Comment THMS Total Coliforms Feeal Coliforms Heterotropic Plate Count (7 days) Klebaiella Feeal Streptococcus Molds Yeast Iron Reducing Bacteria Sulfate Reducing Bacteria Sulfate Reducing Bacteria Sulfate Reducing Bacteria Iron Oxidizing Bacteria Iron Oxidizing Bacteria Plant Operations Person hours to operate plant per we T & O problems Hardness	mg/L mg/L TCU mg/L out of 3 out of 10 ug/L cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml c	NA NA IO - - - - - - - - - - - - - - - - - -	NA NA NA NA NA Cl 2 Cl 2 S 2 2 2 0.9 46
Free Chlorine Color Color Ammonia Odour Type Odour Intensity Flavour Profile Flavour Profile Flavour Comment THMS Total Coliforms Fecal Coliforms Fecal Coliforms Heterotropic Plate Count (48 hr) Heterotropic Plate Count (7 daya) Klebaiella Fecal Streptococcus Molds Yeast Iron Reducing Bacteria Sulfate Reducing Bacteria Sulfate Reducing Bacteria Sulfate Reducing Bacteria Those Ulfate Reducing Bacteria Iron Oxidizing Bacteria Person hours to operate plant per wr T & O problems Hardness	mg/L TCU mg/L out of 3 out of 10 ug/L cfu/100ml cfu/100ml </td <td>NA 10 - - - - no Cl - - - - - - - - - - - - -</td> <td>NA 10 - - - - - - - - - - - - -</td>	NA 10 - - - - no Cl - - - - - - - - - - - - -	NA 10 - - - - - - - - - - - - -
Free Chlorine Color Ammonia Odour Type Odour Intensity Flavour Profile Flavour Profile Flavour Comment THMS Total Coliforms Fecal Coliforms Fecal Coliforms Heterotropic Plaze Count (48 hr) Heterotropic Plaze Count (7 daya) Klebniella Fecal Streptococcus Molds Yeast Iron Reducing Bacteria Sulfate Reducing Bacteria Sulfate Reducing Bacteria Sulfate Reducing Bacteria Inoo Oxidizing Bacteria Plant Operations Person hours to operate plant per we T & O problems Hardness	mg/L TCU mg/L out of 3 out of 10 ug/L cfu/100ml cfu/100ml </td <td>10 - - - - - - - - - - - - -</td> <td>10 - - - - - - - - - - - - - - - - - - -</td>	10 - - - - - - - - - - - - -	10 - - - - - - - - - - - - - - - - - - -
Color Ammonia Odour Type Odour Intensity Flavour Profile Flavour Profile Flavour Profile THMS Total Coliforms Fecal Coliforms Fecal Coliforms Heterotropic Plate Count (48 hr) Heterotropic Plate Count (7 days) Klebsiella Fecal Streptococctus Molds Yeast Tota Reducing Bacteria Sulfate Reducing Bacteria Sulfate Reducing Bacteria Iron Oxidizing Bacteria Iron Oxidizing Bacteria Person hours to operate plant per wo T & O problems Hardness	TCU mg/L out of 3 out of 10 ug/L ch/100ml ch/100ml ch/11mL ch/10ml ch/1	10 - - - - - - - - - - - - -	10 - - - - - - - - - - - - - - - - - - -
Ammonia Odour Type Odour Intensity Flavour Profile Flavour Comment THMS Total Coliforms Fecal Coliforms Heterotropic Plate Count (48 hr) Heterotropic Plate Count (7 days) Klebniella Fecal Streptococcus Molds Yeast Iron Reducing Bacteria Sulfate Reducing Bacteria Sulfate Reducing Bacteria Iron Oxidizing Bacteria Iron Oxidizing Bacteria Plant Operations Person hours to operate plant per we T & O problems Hardness	mg/L out of 3 out of 10 ug/L cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100	- - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - -
Odour Type Odour Intensity Flavour Profile Flavour Comment THMS Total Coliforms Feeal Coliforms Heterotropic Plate Count (48 hr) Heterotropic Plate Count (7 daya) Klebaiella Feeal Streptococcus Molds Yeast Iron Reducing Bacteria Sulfate Reducing Bacteria Sulfate Reducing Bacteria Thiosulfate Reducing Bacteria Thiosulfate Reducing Bacteria Phono Oxidizing Bacteria Plant Operations Person hours to operate plant per we T & O problems Hardness	out of 3 out of 10 ug/L cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cf	<1 <1 - 67 <1 <1 <1 <2 26 0.9 <0.3 21	82 <1 10 17 8 <1 2 3 2 2 0.9 46
Odour Intensity Flavour Profile Flavour Profile Flavour Profile Flavour Comment THMS Total Coliforms Feeal Coliforms Heterotropic Plate Count (48 hr) Heterotropic Plate Count (7 days) Klebaiella Feeal Streptococcrus Molds Yeast Too Reducing Bacteria Sulfate Reducing Bacteria Sulfate Reducing Bacteria Iron Oxidizing Bacteria Iron Oxidizing Bacteria Person hours to operate plant per wo T & O problems Hardness	out of 10 ug/L cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/1	<1 <1 - 67 <1 <1 <1 <2 26 0.9 <0.3 21	82 <1 10 17 8 <1 2 3 2 2 0.9 46
Flavour Profile Flavour Comment THMS Total Coliforms Focal Coliforms Heterotropic Plate Count (48 hr) Heterotropic Plate Count (7 days) Klebniella Fecal Streptococcus Molds Yeast Iron Reducing Bacteria Sulfate Reducing Bacteria Sulfate Reducing Bacteria Iron Oxidizing Bacteria Iron Oxidizing Bacteria Plant Operations Person hours to operate plant per wo T & O problems Hardness	out of 10 ug/L cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/100ml cfu/1	<1 <1 - 67 <1 <1 <1 <2 26 0.9 <0.3 21	82 <1 10 17 8 <1 2 3 2 2 0.9 46
Flavour Comment THMS Total Coliforms Feeal Coliforms Heterotropic Plaze Count (48 hr) Heterotropic Plaze Count (7 days) Klebsiella Heterotropic Plaze Count (7 days) Klebsiella Feeal Streptococcus Molds Yeast Iron Reducing Bacteria Sulfate Reducing Bacteria Sulfate Reducing Bacteria Iron Oxidizing Bacteria Iron Oxidizing Bacteria Plant Operations Person hours to operate plant per wr T & O problems Hardness	ug/L chv/100ml chv/100ml chv/1 mL chv/1 mL chv/100ml chv/100ml chv/1 mL chv/1 mL chv/1 mL org/1 mL org/1 mL org/1 mL org/1 mL org/1 mL	<1 <1 - 67 <1 <1 <1 <2 26 0.9 <0.3 21	82 <1 10 17 8 <1 2 3 2 2 0.9 46
THMS Total Coliforms Fecal Coliforms Fecal Coliforms Heterotropic Plate Count (48 hr) Heterotropic Plate Count (7 daya) Klebaiella Fecal Streptococctus Molds Yeast Iron Reducing Bacteria Sulfate Reducing Bacteria Iron Oxidizing Bacteria Iron Oxidizing Bacteria Plant Operations Person hours to operate plant per wo T & O problems Hardness	cfu/100ml cfu/100ml cfu/1 mL cfu/1 mL cfu/100ml cfu/100ml cfu/10ml cfu/1 mL cfu/1 mL org/1 mL org/1 mL org/1 mL org/1 mL	<1 <1 - 67 <1 <1 <1 <2 26 0.9 <0.3 21	82 <1 10 17 8 <1 2 3 2 2 0.9 46
THMS Total Coliforms Fecal Coliforms Fecal Coliforms Heterotropic Plate Count (48 hr) Heterotropic Plate Count (7 daya) Klebaiella Fecal Streptococctus Molds Yeast Iron Reducing Bacteria Sulfate Reducing Bacteria Iron Oxidizing Bacteria Iron Oxidizing Bacteria Plant Operations Person hours to operate plant per wo T & O problems Hardness	cfu/100ml cfu/100ml cfu/1 mL cfu/1 mL cfu/100ml cfu/100ml cfu/10ml cfu/1 mL cfu/1 mL org/1 mL org/1 mL org/1 mL org/1 mL	<1 <1 - 67 <1 <1 <1 <2 26 0.9 <0.3 21	82 <1 10 17 8 <1 2 3 2 2 0.9 46
Total Coliforms Focal Coliforms Heterotropic Plate Count (48 hr) Heterotropic Plate Count (7 days) Klebaiella Focal Streptococcus Molds Yeast Iron Reducing Bacteria Sulfate Reducing Bacteria Sulfate Reducing Bacteria Iron Oxidizing Bacteria Iron Oxidizing Bacteria Plant Operations Person hours to operate plant per wo T & O problems Hardness	cfu/100ml cfu/100ml cfu/1 mL cfu/1 mL cfu/100ml cfu/100ml cfu/10ml cfu/1 mL cfu/1 mL org/1 mL org/1 mL org/1 mL org/1 mL	<1 <1 - 67 <1 <1 <1 <2 26 0.9 <0.3 21	82 <1 10 17 8 <1 2 3 2 2 0.9 46
Total Coliforms Focal Coliforms Heterotropic Plate Count (48 hr) Heterotropic Plate Count (7 days) Klebaiella Focal Streptococcus Molds Yeast Iron Reducing Bacteria Sulfate Reducing Bacteria Sulfate Reducing Bacteria Iron Oxidizing Bacteria Iron Oxidizing Bacteria Plant Operations Person hours to operate plant per wo T & O problems Hardness	cfu/100ml cfu/100ml cfu/1 mL cfu/1 mL cfu/100ml cfu/100ml cfu/10ml cfu/1 mL cfu/1 mL org/1 mL org/1 mL org/1 mL org/1 mL	<1 <1 - 67 <1 <1 <1 <2 26 0.9 <0.3 21	82 <1 10 17 8 <1 2 3 2 2 0.9 46
Fecal Coliforms Heterotropic Plaze Count (48 hr) Heterotropic Plaze Count (7 daya) Klebniella Fecal Streptococcus Molds Yeast Iron Reducing Bacteria Sulfate Reducing Bacteria Sulfate Reducing Bacteria ThosoUffate Reducing Bacteria Iron Oxidizing Bacteria Plant Operations Person hours to operate plant per we T & O problems Hardness	cfu/100ml cfu/1 mL cfu/1 mL cfu/100ml cfu/100ml cfu/100ml cfu/1 mL org/1 mL org/1 mL org/1 mL org/1 mL org/1 mL	<1 - 67 <1 <1 <1 26 0.9 <0.3 <21 21	<1 10 17 8 <1 2 3 2 2 0.9 46
Fecal Coliforms Heterotropic Plaze Count (48 hr) Heterotropic Plaze Count (7 daya) Klebniella Fecal Streptococcus Molds Yeast Iron Reducing Bacteria Sulfate Reducing Bacteria Sulfate Reducing Bacteria ThosoUffate Reducing Bacteria Iron Oxidizing Bacteria Plant Operations Person hours to operate plant per we T & O problems Hardness	cfu/100ml cfu/1 mL cfu/1 mL cfu/100ml cfu/100ml cfu/100ml cfu/1 mL org/1 mL org/1 mL org/1 mL org/1 mL org/1 mL	<1 - 67 <1 <1 <1 26 0.9 <0.3 <21 21	<1 10 17 8 <1 2 3 2 2 0.9 46
Heterotropic Plate Count (48 hr) Heterotropic Plate Count (7 days) Klebaiella Fecal Streptococcus Molds Yeast Iron Reducing Bacteria Sulfate Reducing Bacteria Sulfate Reducing Bacteria Iron Oxidizing Bacteria Iron Oxidizing Bacteria Plant Operations Person hours to operate plant per wo T & O problems Hardness	cfu/1 mL cfu/1 mL cfu/100ml cfu/100ml cfu/1 mL cfu/1 mL cfu/1 mL org/1 mL org/1 mL org/1 mL org/1 mL	- 67 <1 <1 <1 26 0.9 <0.3 <0.3 21	10 17 8 <1 2 3 2 2 0.9 46
Heterotropic Plate Count (48 hr) Heterotropic Plate Count (7 days) Klebaiella Fecal Streptococcus Molds Yeast Iron Reducing Bacteria Sulfate Reducing Bacteria Sulfate Reducing Bacteria Iron Oxidizing Bacteria Iron Oxidizing Bacteria Plant Operations Person hours to operate plant per wo T & O problems Hardness	cfu/1 mL cfu/1 mL cfu/100ml cfu/100ml cfu/1 mL cfu/1 mL cfu/1 mL org/1 mL org/1 mL org/1 mL org/1 mL	- 67 <1 <1 <1 26 0.9 <0.3 <0.3 21	10 17 8 <1 2 3 2 2 0.9 46
Heterotropic Plate Count (7 days) Klebaiella Fecal Streptococcus Molds Teoa Reducing Bacteria Sulfate Reducing Bacteria Sulfate Reducing Bacteria Thoroulfate Reducing Bacteria Iron Oxidizing Bacteria Plant Operations Person hours to operate plant per wo T & O problems Hardness	cfu/1 mL cfu/100mi cfu/100mi cfu/1 mL cfu/1 mL org/1 mL org/1 mL org/1 mL org/1 mL org/1 mL	<1 <1 <1 26 0.9 <0.3 <1 21	17 8 <1 2 3 2 2 0.9 46
Klebnella Fecal Streptococcus Molds Yeast Iron Reducing Bacteria Sulfate Reducing Bacteria Sulfate Reducing Bacteria Iron Oxidizing Bacteria Iron Oxidizing Bacteria Plant <u>Operations</u> Person hours to operate plant per we T & O problems Hardness	efu/100ml cfu/100ml efu/1 mL cfu/1 mL org/1 mL org/1 mL org/1 mL org/1 mL org/1 mL org/1 mL	<1 <1 <1 26 0.9 <0.3 <1 21	8 <1 2 3 2 2 0.9 46
Fecal Streptococcus Molds Yeast Iron Reducing Bacteria Sulfate Reducing Bacteria Sulfate Reducing Bacteria Thiosulfate Reducing Bacteria Iron Oxidizing Bacteria <u>Plant Operations</u> Person hours to operate plant per wo T & O problems Hardness	cfu/100ml cfu/1 mL cfu/1 mL org/1 mL org/1 mL org/1 mL org/1 mL org/1 mL	<1 <1 26 0.9 <0.3 <0.3 21	<1 2 3 2 2 0.9 46
Molds Yeasi Iron Reducing Bacteria Sulfate Reducing Bacteria Thiosulfate Reducing Bacteria Iron Oxidizing Bacteria <u>Plant Operations</u> Person hours to operate plant per wo T & O problems Hardness	cfu/1 mL cfu/1 mL org/1 mL org/1 mL org/1 mL org/1 mL org/1 mL	<1 26 0.9 <0.3 <1.3 21	2 3 2 2 0.9 46
Molds Yeas Iron Reducing Bacteria Sulfate Reducing Bacteria Thiosulfate Reducing Bacteria Iron Oxidizing Bacteria <u>Plant Operations</u> Person hours to operate plant per wo T & O problems Hardness	cfu/1 mL cfu/1 mL org/1 mL org/1 mL org/1 mL org/1 mL org/1 mL	26 0.9 <0.3 <1.3 21	3 2 2 0.9 46
Yeast Iron Reducing Bacteria Sulfate Reducing Bacteria Thiosulfate Reducing Bacteria Iron Ovidizing Bacteria Plant Operations Person hours to operate plant per w T & O problems Hardness	cfu/1 mL org/1 mL org/1 mL org/1 mL org/1 mL org/1 mL	26 0.9 <0.3 <1.3 21	3 2 2 0.9 46
Iron Reducing Bacteria Sulfate Reducing Bacteria Sulfate Reducing Bacteria Thiosulfate Reducing Bacteria Iron Oxidizing Bacteria <u>Plant Operations</u> Person hours to operate plant per wo T & O problems Hardness	org/1 mL org/1 mL org/1 mL org/1 mL org/1 mL	0.9 <0.3 <0.3 21	2 2 0.9 46
Sulfate Reducing Bacteria Sulfate Reducing Bacteria Thosulfate Reducing Bacteria Iron Oxidizing Bacteria <u>Plant Operations</u> Persoa hours to operate plant per wo T & O problems Hardness	org/1 mL org/1 mL org/1 mL org/1 mL	<0.3 <0.3 21	2 0.9 46
Sulfate Reducing Bacteria Sulfate Reducing Bacteria Thorsulfate Reducing Bacteria Iron Oxidizing Bacteria <u>Plant Operations</u> Person hours to operate plant per wo T & O problems Hardness	org/1 mL org/1 mL org/1 mL org/1 mL	<0.3 <0.3 21	2 0.9 46
Sulfie Reducing Bacteria Thiosulfate Reducing Bacteria Iron Oxidizing Bacteria <u>Plant Operations</u> Person hours to operate plant per w T & O problems Hardness	org/1 mL org/1 mL org/1 mL	<0.3 21	0.9 46
Thiosulfate Reducing Bacteria Iron Oxidizing Bacteria <u>Plant Operations</u> Person hours to operate plant per w T & O problems Hardness	org/1 mL org/1 mL	21	46
Iron Oxidizing Bacteria <u>Plant Operations</u> Persoa hours to operate plant per w T & O problems Hardness	org/1 mL		
Plant <u>Operations</u> Person hours to operate plant per w T & O problems Hardness		.0.3	2
Plant <u>Operations</u> Person hours to operate plant per w T & O problems Hardness			
Person hours to operate plani per w T & O problems Hardness	eek		1
Person hours to operate plant per w T & O problems Hardness	eek		1
Person hours to operate plani per w T & O problems Hardness	eek		<u> </u>
T&O problems Hardness	~~~		4
Hardness			-
Hardness		l	
		F	none
	high	1	
			•
	low		-
Recycel Filter Backwash			
Distribution states Auchine		ļ	1.00
Distribution system flushing program			yes
Storage	m3	1	1091
Average Daily Production	m3		326
		t i	80.3
Ave. Theoretical Hydraulic Detentio	n, nr.		80.3
Treatment			DODE
Weekly Sampling Routine		Raw	Distributed
free Cl2			-
total C12			-
turbidity			
			r -
temperature			·
pH			-
Floride			-
Color			-
Hardness			r.
Mn			-
Fe			·
Alkalinity			-
Microhial	ner month		8
	per month		10
Chemical Dosing and Operating Stri			
Coagulants	current	1	•
	low		•
	high	i	
	type		•
	adjustment		-
Polymer	current		-
	low		-
	high		
	type		•
	adjustment		-
Soda Ash	current		-
	low	1	
		1	
	high	1	-
	adjustment	1	-
	current	1	
	low	1	-
Disinfection		1	-
Disinfection			-
Disinfection	high		-
Disinfection	high		-
Disinfection	high type		-
Disinfection	high type adjustment		•
Disinfection T & O control	high type adjustment current		•
Disinfection T & O control	high type adjustment		•
Disinfection T & O control	high type adjustment current iow		-
Disinfection T & O control	high type adjustment current iow high		•
Disinfection T & O control	high type adjustment current iow high type		- - - -
Disinfection T & O control	high type adjustment current iow high		- - - -
Disinfection T & O control	high type adjustment current iow high type		- - - -
Disinfection T & O control Floride	high type adjustment current low high type adjustment current		-
Disinfection T & O control Floride	high type adjustment current iow high high sdjustment current low		-
Disinfection T & O control Floride	high type adjustment current low high adjustment current low high		•
Disinfection T & O control Floride	high type adjustment current iow high high sdjustment current low		· · ·

		C	ADOTTE LAKE
Type of Sample		Raw	24-Aug-94 Treated
Temperature	deg C	17.5	19
	ueg c		
pH Construction		8.3	6.6
Conductivity	Miro ohms/c	305	590
Turbidity	NTU	33	21
Total Chlorine	mg/L	-	2.5
Free Chlorine	mg/L	-	0.08
Color	TCU	50	<0
Ammonia	mg/L	0.45	2.7
Odour Type		mint	chemical
Odour Intensity	out of 3	1	3
Flavour Profile	out of 10	NA	4
Flavour Comment			
	_		
THMs	ug/L	-	27
Total Coliforms	cfu/100ml	2525	<1
Fecal Coliforms	cfu/100ml	72	<1
	cfu/1 mL		
Heterotropic Plate Count (48 hr)		2317	<1
Heterotropic Plate Count (7 days)	chu/1 mL	3567	27
Klebsiella	cfu/100ml	confl	<1
Fecal Streptococcus	ctu/100ml	19	<1
		1	
Molds	cfu/1 mL	2	1
Yeast	cfu/l mL	15	28
Iron Reducing Bacteria	org/1 mL	>110	<0.3
Sulfate Reducing Bacteria	org/1 ml.	>110	<0.3
Sulfite Reducing Bacteria	org/1 mL	>110	<0.3
Thiosulfate Reducing Bacteria	org/1 mL	>110	0.9
Iron Oxidizing Bacteria	org/1 mL	>110	0.7
•			
Plant Operations			
Person hours to operate plant per	week		14
I & O problems			yes
			both summer and a
lardness	high low		-
	1044		5.0
Recycel Filter Backwash			no
Distribution system flushing progr	æn		na
			only to get rid of b
Storage	m3		455
			455
Average Daily Production	m3		455 100 109.1
Storage Average Daily Production Ave. Theoretical Hydraulic Detenci	m3		100 109.1
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment	m3		100 109.1 /Ast/C _. zA/Flc/Sd/pH/Rft/h
Average Daily Production Ave. Theoretical Hydraulic Detenci Treatment Weekly Sampling Routine	m3	TC	100 109.1 / <u>Aet/CzA/Flc/Sd/pH/Rfit/T</u> Treated
Average Daily Production Ave. Theoretical Hydraulic Detenci Treatment Weekly Sampling Routine	m3		100 109.1 /Ast/C _. zA/Flc/Sd/pH/Rft/h
Average Daily Production Ave. Theoretical Hydraulic Detenci Treatment Weekly Sampling Routine free Cl2	m3		100 109.1 / <u>Aet/CzA/Flc/Sd/pH/Rfil/T</u> Treated 7
Average Daily Production Ave. Theoretical Hydraulic Detend Preatment Weekly Samphing Routine free Cl2 oul Cl2	m3	Raw	100 109.1 VAer/C <u>14/Flc/Sd/pH/Rfl/T</u> Treated 7 7
Average Daily Production Ave. Theoretical Hydraulic Detend Preatment Weekly Sampling Routine Tree Cl2 oral Cl2 urbidity	m3	Raw 7	100 109.1 / <u>Aet/CzA/Flc/Sd/pH/Rfil/T</u> Treated 7
Average Daily Production Ave. Theoretical Hydraulic Detenti Veekly Sampling Routine Tee Cl2 oral Cl2 aurbidity emperature	m3	Raw 7 7	100 109.1 // <u>A.er/C.t</u> //Flc/Sd/pH/Rftt/7 Trented 7 7 7 -
Average Daily Production Ave. Theoretical Hydraulic Detend Preatment Weekly Samphing Routine free Cl2 ould Cl2 urbidity emperature H	m3	Raw 7	100 109.1 VAer/C <u>rA/Flc/Sd/pH/Rfit/T</u> Treated 7 7
Average Daily Production Ave. Theoretical Hydraulic Detend Preatment Weekly Samphing Routine free Cl2 coal Cl2 autoidity emperature pli	m3	Raw 7 7	100 109.1 // <u>A.er/C.t</u> //Flc/Sd/pH/Rftt/7 Trented 7 7 7 -
Average Daily Production Ave. Theoretical Hydraulic Detend Preatment <u>Weekly Samphing Routine</u> free Cl2 otal Cl2 aurbidity emperature oH Foride	m3	Raw 7 7 7	100 109.1 //Act/C_tA/F1c/Sd/pH/Rftt/1 7 7 7 7 7 7 7 7 7 7
Average Daily Production Ave. Theoretical Hydraulic Detention Presement Veekly Sampling Routine free Cl2 oeal Cl2 autoidity emperature H Floride Color	m3	Raw 7 7	100 109.1 // <u>A.er/C.t</u> //Flc/Sd/pH/Rftt/7 Trented 7 7 7 -
Average Daily Production Ave. Theoretical Hydraulic Detend Preatment Weekly Samphing Routine free Cl2 oul Cl2 urbidity emperature bit Floride Color Sardness Sardness	m3	Raw 7 7 7	100 109.1 VAEUC_LAFIC/Sd/pH/Rfit/1 Treated 7 7 7 7 7 7 7 7
Average Daily Production Ave. Theoretical Hydraulic Detend Preatment Weekly Samphing Routine free Cl2 oul Cl2 urbidity emperature bit Floride Color Sardness Sardness	m3	Raw 7 7 7	100 109.1 //Act/C_tA/F1c/Sd/pH/Rftt/1 7 7 7 7 7 7 7 7 7 7
Average Daily Production Aver. Theoretical Hydraulic Detention <u>Veeklv Sampling Routine</u> tree Cl2 otal Cl2 urbidity emperature bit Toride Color tardness Ma.	m3	Raw 7 7 7	100 109.1 VAEUC_LAFIC/Sd/pH/Rfit/1 Treated 7 7 7 7 7 7 7 7
Average Daily Production Ave. Theoretical Hydraulic Detention Presument Veekly Sampling Routine Tree C12 otal C12 surbidity emperature H Floride Color tardness Vin Fe	m3	Raw 7 7 7	100 109.1 VAer/CzA/Flo/Sd/pH/Rfb// Trested 7 7 7 7 7 7 7 7 7 1
Average Daily Production Ave: Theoretical Hydraulic Detention Preatment Weekly Sampling Routine free C12 ordal C12 aurbidity emperature off Color Color Solor Solor Se Alkalimity	m3	Raw 7 7 7	100 109.1 VAer/CzA/Flo/Sd/pH/Rfb// Trested 7 7 7 7 7 7 7 7 7 1
Average Daily Production Ave. Theoretical Hydraulic Detention Preatment Weekly Sampling Routine free Cl2 total Cl2 total Cl2 turbidity emperature off Floride Color Hardness Vin Fe Hkalimity Viicrobial Chemical Dosing and Operating St	m3 on, hr. per month Telesy	Raw 7 7 7	100 109.1 VAEUC_LAFIC/Sd/pH/Rfit/T Treated 7 7 7 7 7 7 7 7 7 7 7 7 1
Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routine free C12 total C12 t	m3 on, hr. per month Mergy carrent	Raw 7 7 7	100 199.1 VAct/C_tA/Flc/Sd/pH/Rfb// Treated 7 7 - - 7 7 - 7 7 - 1 1 1 1 -
Average Daily Production Ave. Theoretical Hydraulic Detenti	m3 on, hr. per month Titlegy current Low	Raw 7 7 7	100 109.1 VAct/C_tA/Flc/Sd/pH/R fit/ Treated 7 7 - 7 7 - 7 7 1 1 1 1 2 7 7 7 7 7 7
Average Daily Production Ave. Theoretical Hydraulic Detention Preatment Weekly Sampling Routine free Cl2 total Cl2 total Cl2 turbidity emperature off Floride Color Hardness Vin Fe Hkalimity Viicrobial Chemical Dosing and Operating St	m3 on, hr. per month Telesy current low hugh	Raw 7 7 7	100 109.1 VAEVC_LAFIC/Sd/pH/Rfl// Treated 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
Average Daily Production Ave. Theoretical Hydraulic Detention Preatment Weekly Sampling Routine free Cl2 total Cl2 total Cl2 turbidity emperature off Floride Color Hardness Vin Fe Hkalimity Viicrobial Chemical Dosing and Operating St	m3 on, hr. per month fategy current low high type	Raw 7 7 7	100 109.1 VAct/C_tA/Flc/Sd/pH/Rfb// Trented 7 7 - - 7 7 7 - 1 1 1 1 - 7 7 7 7 7 7 7
Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routine free C12 coal C12 arbidity emperature off Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Dosing and Operating St Coagulants	m3 on, hr. per month fillegy current low high type adjustment	Raw 7 7 7	100 109.1 VAct/C_tA/Flc/Sd/pH/R flt/ Treated 7 7 7 - 7 7 1 1 1 1 1 2 7 7 7 7 7 7 7 7 7 7 7 7
Average Daily Production Ave. Theoretical Hydraulic Detention Preatment Weekly Sampling Routine free Cl2 total Cl2 total Cl2 turbidity emperature off Floride Color Hardness Vin Fe Hkalimity Viicrobial Chemical Dosing and Operating St	m3 on, hr. per month fategy current low high type	Raw 7 7 7	100 109.1 VAct/C_tA/Flc/Sd/pH/Rfb// Trented 7 7 - - 7 7 7 - 1 1 1 1 - 7 7 7 7 7 7 7
Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routine free C12 coal C12 arbidity emperature off Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Dosing and Operating St Coagulants	m3 on, hr. per month fillegy current low high type adjustment	Raw 7 7 7	100 109.1 VAct/C_tA/Flc/Sd/pH/R flt/ Treated 7 7 7 - 7 7 1 1 1 1 1 2 7 7 7 7 7 7 7 7 7 7 7 7
Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routine free C12 coal C12 arbidity emperature off Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Dosing and Operating St Coagulants	m3 on, hr. per month <u>ratery</u> current low high type adjustment current low	Raw 7 7 7	100 109.1 VAEUC_LAFFIC/Sd/pH/Rfb// Tremted 7 7 - - 7 7 1 1 1 1 - 1 1 2 7 7 7 2 5 8 8 8 9 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routine free C12 coal C12 arbidity emperature off Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Dosing and Operating St Coagulants	m3 on, hr. per month fittegy current low high type sojustment current low high	Raw 7 7 7	100 109.1 VAct/C_tA/Flc/Sd/pH/R flt/ Treated 7 7 7 7 7 7 7 1 1 1 1 1 1 2 7 7 7 7 7 7
Average Daily Production Ave. Theoretical Hydraulic Detention Preatment Weekly Sampling Routine Tree C12 oral C12 surbidity emperature Hi Floride Color Hardness Hi Floride Color Hardness Hi Floride Color Hardness Hi Floride Color Hardness Hi Floride Color Hardness Hi Floride Color Hardness Hi Floride Color Hardness Hi Color Hardness Hi Hi Color Hardness Hi Color Hardness Hi Color Hardness Hi Color Hardness Hi Color Hardness Hi Color Hardness Hi Color Hi Hi Color Hi Hi Hi Hi Hi Hi Hi Hi Hi Hi Hi Hi Hi	m3 on, hr. per month mery current low high type sdjustment current low high type	Raw 7 7 7	100 199.1 VAEC/C_tA/Flc/Sd/pH/Rftt/7 Treated 7 7 7 7 7 1 1 1 1 7 7 7 7 7 7 7 7 7 7 7 7 7
Average Daily Production Ave. Theoretical Hydraulic Detention Presement Weekly Sampling Routine Tree CT2 arbidity emperature off Foride Color fardness Ma Fe Alkalimity Microbial Chemical Dosing and Operating St Cosgulants	m3 on, hr. per month <u>Mercy</u> current low high type adjustment low high type adjustment	Raw 7 7 7	100 109.1 VAEUC_LAFFIC/Sd/pH/Rfb// Tremted 7 7 7 7 7 1 1 1 1 1 1 7 7 7 8 8 8 8 9 7 7 7 7 8 8 8 8 9 7 7 7 7
Average Daily Production Ave. Theoretical Hydraulic Detention Presement Weekly Sampling Routine Tree CT2 arbidity emperature off Foride Color fardness Ma Fe Alkalimity Microbial Chemical Dosing and Operating St Cosgulants	m3 on, hr. per mosth ittegy current low high type adjustment current low high type adjustment current low	Raw 7 7 7	100 109.1 VAct/C_LAFIC/Sd/pH/R flu/r Treated 7 7 7 7 7 7 1 1 1 1 1 1 1 2 7 7 7 7 7 7
Average Daily Production Ave. Theoretical Hydraulic Detention Presement Weekly Sampling Routine Tree CI2 oral CI2 wrbidity emperature HI Toride Olor tardness da Te Ukalimity <u>Accrobial</u> <u>Chemical Dosing and Operating St</u> Congulants Story States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States	m3 per moath mery current low high type adjustment current low high type adjustment current low	Raw 7 7 7	100 109.1 VAEUC_LAFFIC/Sd/pH/Rfb// Tremted 7 7 7 7 7 1 1 1 1 1 1 7 7 7 8 8 8 8 9 7 7 7 7 8 8 8 8 9 7 7 7 7
Average Daily Production Ave. Theoretical Hydraulic Detention Presement Weekly Sampling Routine Tree CI2 oral CI2 wrbidity emperature HI Toride Olor tardness da Te Ukalimity <u>Accrobial</u> <u>Chemical Dosing and Operating St</u> Congulants Story States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States	m3 on, hr. per mosth ittegy current low high type adjustment current low high type adjustment current low	Raw 7 7 7	100 109.1 VAct/C_LAFIC/Sd/pH/R flu/r Treated 7 7 7 7 7 7 1 1 1 1 1 1 1 2 7 7 7 7 7 7
Average Daily Production Ave. Theoretical Hydraulic Detention Presement Weekly Sampling Routine Tree CI2 oral CI2 wrbidity emperature HI Toride Olor tardness da Te Ukalimity <u>Accrobial</u> <u>Chemical Dosing and Operating St</u> Congulants Story States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States States	m3 on, hr. per month <u>mery</u> current low high type adjustment current low high type adjustment current low high	Raw 7 7 7	100 109.1 VAEUC_LAFFIC/Sd/pH/R fit/r Treated 7 7 7 7 7 1 1 1 1 7 7 7 8 8 8 8 9 7 7 7 7 8 8 8 8 9 7 7 7 7
Average Daily Production Aver. Theoretical Hydraulic Detention Presement VeelV Sampling Routine Treatment VeelV Sampling Routine Treatment Total Complete Total Complete Total Color tardness An Fe Ukalinity Accrobial Chemical Dosing and Operating St Coagulants Polymer Stoda Ash	m3 on, hr. <u>per mosth</u> <u>ittegy</u> current low high type adjustment current low high type adjustment current low high type adjustment current low	Raw 7 7 7	100 109.1 VAct/C_tA/Flc/Sd/pH/R flt/ Treated 7 7 7 7 7 7 1 1 1 1 1 2 7 7 7 7 7 7 7 7
Average Daily Production Ave. Theoretical Hydraulic Detention Preatment Weekly Sampling Routine Tree CL2 ocal CL2 urbidity emperature emperature H Floride Color tardness Vin Fe Alkalimity Vicrobial Chemical Dosing and Operating St Coagulants Polymer Soda Ash	m3 on, hr. per month fargy current low high type adjustment current low high type adjustment current low high adjustment current low	Raw 7 7 7	100 109.1 VAct/C_tA/Flc/Sd/pH/Rfit/T Trented 7 7 7 7 7 7 1 1 1 1 1 7 7 7 7 8 8 8 8 8
Average Daily Production Ave. Theoretical Hydraulic Detention Preatment Weekly Sampling Routine Tree CL2 ocal CL2 urbidity emperature emperature H Floride Color tardness Vin Fe Alkalimity Vicrobial Chemical Dosing and Operating St Coagulants Polymer Soda Ash	m3 on, hr. per month <u>mercy</u> current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	Raw 7 7 7	100 109.1 VAEUC_LAFEC/Sd/pH/R flu/r Treated 7 7 7 7 7 1 1 1 1 7 7 7 7 8 8 8 8 9 7 7 7 7 7 7 7 7 7 7 7
Average Daily Production Ave. Theoretical Hydraulic Detention Preatment Weekly Sampling Routine Tree CL2 ocal CL2 urbidity emperature emperature H Floride Color tardness Vin Fe Alkalimity Vicrobial Chemical Dosing and Operating St Coagulants Polymer Soda Ash	m3 on, hr. per month fargy current low high type adjustment current low high type adjustment current low high adjustment current low	Raw 7 7 7	100 109.1 VAct/C_tA/Flc/Sd/pH/Rfit/T Trented 7 7 7 - 7 7 7 1 1 1 1 - 7 7 7 7 8 8 8 8 8 9 7 7 7 7 7 7 7 8 8 8 8
Average Daily Production Ave. Theoretical Hydraulic Detention Preatment Weekly Sampling Routine Tree CL2 ocal CL2 urbidity emperature emperature H Floride Color tardness Vin Fe Alkalimity Vicrobial Chemical Dosing and Operating St Coagulants Polymer Soda Ash	m3 on, hr. per mosth ittegy current low high type adjustment current low high type adjustment current low high high type adjustment current low high high high high type adjustment current low high high high high high high high hig	Raw 7 7 7	100 199.1 VAct/C tA/Flc/Sd/pH/R fit/7 Treated 7 7 7 7 7 1 1 1 1 1 7 7 7 7 7 7 7 7 7
Average Daily Production Ave. Theoretical Hydraulic Detention Preatment Weekly Sampling Routine Tree CL2 ocal CL2 urbidity emperature emperature H Floride Color tardness Vin Fe Alkalimity Vicrobial Chemical Dosing and Operating St Coagulants Polymer Soda Ash	m3 on, hr. per month <u>Tetery</u> current low high type adjustment current low high type adjustment current low high type adjustment current low high type tow high type tow high type	Raw 7 7 7	100 109.1 VAEUC_LAFFIC/Sd/pH/Rfit/7 Tremted 7 7 7 - 1 1 1 1 - 7 7 7 8 based on turbidity 7 7 7 8 based on turbidity 7 7 7 7 8 not adjusted 7 7 7 7 8 8 9 8 9 7 7 7 7 7 7 7 7 7 7 7
Average Daily Production Ave. Theoretical Hydraulic Detention Preatment Weekly Sampling Routine Tree C12 out C12 autbidity emperature H Floride Color tardness Wa Floride Color tardness Wa Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Scolor Scolor tardness Ma Scolor tardness Ma Scolor tardness Ma Scolor tardness Ma Scolor tardness Ma Scolor tardness Ma Scolor tardness Ma Scolor Scolor tardness Ma Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Sco	m3 on, hr. per month <u>mtery</u> current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	Raw 7 7 7	100 109.1 VAEUC_LAFEC/Sd/pH/R flu/ Treated 7 7 7 7 7 7 7 7 8 8 8 8 9 7 7 7 7 8 8 8 8
Average Daily Production Ave. Theoretical Hydraulic Detention Preatment Weekly Sampling Routine Tree C12 out C12 autbidity emperature H Floride Color tardness Wa Floride Color tardness Wa Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Scolor Scolor Scolor Scolor Scolor tardness Ma Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolo	m3 on, hr. per month <u>Tetery</u> current low high type adjustment current low high type adjustment current low high type adjustment current low high type tow high type tow high type	Raw 7 7 7	100 109.1 VAEUC_LAFFIC/Sd/pH/Rfit/7 Tremted 7 7 7 - 1 1 1 1 - 7 7 7 8 based on turbidity 7 7 7 8 based on turbidity 7 7 7 7 8 not adjusted 7 7 7 7 8 8 9 8 9 7 7 7 7 7 7 7 7 7 7 7
Average Daily Production Ave. Theoretical Hydraulic Detention Preatment Weekly Sampling Routine Tree C12 out C12 autbidity emperature H Floride Color tardness Wa Floride Color tardness Wa Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Scolor Scolor Scolor Scolor Scolor tardness Ma Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolo	m3 on, hr. per month <u>mtery</u> current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	Raw 7 7 7	100 109.1 VAEUC_LAFEC/Sd/pH/R flu/ Treated 7 7 7 7 7 7 7 7 8 8 8 8 9 7 7 7 7 8 8 8 8
Average Daily Production Ave. Theoretical Hydraulic Detention Preatment Weekly Sampling Routine Tree C12 out C12 autbidity emperature H Floride Color tardness Wa Floride Color tardness Wa Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Scolor Scolor Scolor Scolor Scolor tardness Ma Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolo	m3 on, hr. per month <u>Tetery</u> current low high type adjustment current low high type adjustment current low high badjustment current low high badjustment current low high badjustment current low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low low high low high low high low high low high low low high low low high low low high low low high low low high low low high low low high low low high low low high low low low low low low low low low low	Raw 7 7 7	100 109.1 VAEUC_LAFEC/Sd/pH/Rfit/ Tremted 7 7 7 7 7 1 1 1 1 1 7 7 7 8 based on turbidity 7 7 7 7 8 based on turbidity 7 7 7 7 7 7 8 8 8 8 9 7 7 7 7 7 7 7 7 7
Average Daily Production Ave. Theoretical Hydraulic Detention Preatment Weekly Sampling Routine Tree C12 out C12 autbidity emperature H Floride Color tardness Wa Floride Color tardness Wa Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Scolor Scolor Scolor Scolor Scolor tardness Ma Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolo	m3 on, hr. per month retery current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjust type type adjust type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type	Raw 7 7 7	100 109.1 VAcc/C_LA/FIC/Sd/pH/R flu// Treated 7 7 7 7 7 7 1 1 1 1 1 7 7 7 7 8 based on furbidity 7 7 7 8 based on furbidity 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
Average Daily Production Ave. Theoretical Hydraulic Detention Preatment Weekly Sampling Routine Tree C12 out C12 autbidity emperature H Floride Color tardness Wa Floride Color tardness Wa Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Floride Color tardness Ma Scolor Scolor Scolor Scolor Scolor tardness Ma Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolor Scolo	m3 on, hr. per month mergy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type divent type adjustment current low high type divent type divent type divent type divent type divent type adjustment current low high type divent type divent type divent type divent type divent type type divent type divent type divent type type divent type divent type type divent type type divent type divent type divent type type divent type divent type type divent type type divent type type divent type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type	Raw 7 7 7	100 109.1 VAEUC tAFFIC/Sd/pH/Rfb// Treated 7 7 7 7 7 1 1 1 1 1 7 7 7 7 8 based on turbidity 7 7 7 7 8 based on turbidity 7 7 7 7 7 7 8 7 8 7 7 7 7 7 7 7 7 7 7
Average Daily Production Ave. Theoretical Hydraulic Detention Weekly Sampling Routine Treatment Weekly Sampling Routine Tree C12 urbidity emperature ordet Color tardness Wa Te Ultalimity Microbial Themical Dosing and Operating St Congulants Polymer Socia Ash Disinfection Y & O control	m3 on, hr. per month meret per month meret low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type type adjustment current low high type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type	Raw 7 7 7	100 109.1 VAcc/C_LA/FIC/Sd/pH/R flu// Treated 7 7 7 7 7 7 1 1 1 1 1 7 7 7 7 8 based on furbidity 7 7 7 8 based on furbidity 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
Average Daily Production Ave. Theoretical Hydraulic Detention Weekly Sampling Routine Treatment Weekly Sampling Routine Tree C12 urbidity emperature ordet Color tardness Wa Te Ultalimity Microbial Themical Dosing and Operating St Congulants Polymer Socia Ash Disinfection Y & O control	m3 on, hr. per month mergy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type divent type adjustment current low high type divent type divent type divent type divent type divent type adjustment current low high type divent type divent type divent type divent type divent type type divent type divent type divent type type divent type divent type type divent type type divent type divent type divent type type divent type divent type type divent type type divent type type divent type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type	Raw 7 7 7	100 109.1 VAEC/C tA/FIc/Sd/pH/R fit/N Treated 7 7 7 7 7 7 1 1 1 1 7 7 7 7 7 8 based on furbidity 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routine free C12 coal C12 arbidity emperature off Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Dosing and Operating St Coagulants	m3 on, hr. per month meret per month meret low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type type adjustment current low high type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type	Raw 7 7 7	100 109.1 VAEC/C tA/FIc/Sd/pH/R fit/N Treated 7 7 7 7 7 7 1 1 1 1 7 7 7 7 7 8 based on furbidity 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
Average Daily Production Ave. Theoretical Hydraulic Detention Weekly Sampling Routine Treatment Weekly Sampling Routine Tree C12 urbidity emperature ordet Color tardness Wa Te Ultalimity Microbial Themical Dosing and Operating St Congulants Polymer Socia Ash Disinfection Y & O control	m3 m3 m3 m3 m3 m3 m3 m3 m3 m3	Raw 7 7 7	100 109.1 VAEC/C tA/Flc/Sd/pH/R fit/7 Treated 7 7 7 7 7 1 1 1 1 7 7 7 7 8 based on turbidity 7 7 7 7 8 based on turbidity 7 7 7 7 8 based on turbidity 7 7 7 7 8 based on turbidity 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
Average Daily Production Ave. Theoretical Hydraulic Detention Weekly Sampling Routine Treatment Weekly Sampling Routine Tree C12 urbidity emperature ordet Color tardness Wa Te Ultalimity Microbial Themical Dosing and Operating St Congulants Polymer Socia Ash Disinfection Y & O control	m3 on, hr. per month per month fitegy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	Raw 7 7 7	100 109.1 VAEC/C tA/FIc/Sd/pH/R fit/N Treated 7 7 7 7 7 7 1 1 1 1 7 7 7 7 7 8 based on furbidity 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7

		I	COLINTON	
			25-Jul-94	let an a s
Type of Sample Temperature	den C	Raw 5.9	Treated 7.6	Distributed 8,9
pH	deg C	7.6	7.6	7.7
Conductivity	Miro ohms/c	1520	1580	1590
Turbidity	NTU	7.2	1.6	1.6
Total Chlorine	mg/L	NA	0.99	0.76
Free Chlorine	mg/L	NA	0.69	0.59
Color	TCU	0	0	0
Ammonia	mg/L	0.92	•	-
Odour Type Odour Intensity	out of 3	-	-	-
Flavour Profile	out of 10	-		
Flavour Comment				
THMs	ug/L	-	223	198
Total Coliforms	cfu/100ml	<1	<1	<1
Fecal Coliforms	cfu/100ml	<1 2	<1 <1	<i <1</i
Heterotropic Plate Count (48 hr) Heterotropic Plate Count (7 days)	cfu/1 mL cfu/1 mL	29	9	3
Klebniella	cfu/100ml	<1	<1	<1
Fecal Streptococcus	cfu/100ml	<1	<1	<1
Molds	cfu/1 mL	<1	<1	<1
Yeast	cfu/1 mL	<1	<1	1
Iron Reducing Bacteria	org/1 mL	<0.3	<0.3	<0.3
Sulfate Reducing Bacteria	org/1 mL	<0.3	<0.3	<0.3
Sulfite Reducing Bacteria	org/1 mL	<0.3	<0.3	<0.3
Thiosulfate Reducing Bacteria	org/1 mL	24	2	<0.3
Iron Oxidizing Bacteria	org/1 mL	0.4	<0.3	<0.3
Plant Operations Person hours to operate plant per v	veek		10	
			ī	
T & O problems			yes	
Franka an	hink	nter	Chlorine taste	
Hardness	high Iow		-	
	10 W		-	
Recycel Filter Backwash			по	
Distribution system flushing progra	an	WHET	yes flushes with 100 mg	/L chloringted water
Storage	m3		100	
Average Daily Production	m3		48	
	on, hr.		50.0	
Ave. Theoretical Hydraulic Detenti	on, hr.			
Ave. Theoretical Hydraulic Detenti Treatment	on, hr		e re/GSfit/NaOCI/TV	VR
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine	on, hr.	OCUTWR F	e re/GSfit/NaOCI/TV Treated	VR
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free Cl2	on, hr		e re/GSfit/NaOCI/TV	VR
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12	on, hr		e re/GSfit/NaOCI/TV Treated	/R
Ave, Theoretical Hydraulic Detenti Treatment Weekly Sampling Routing free C12 total C12 total C12 total C12	on, hr.		e re/GSfit/NaOCI/TV Treated	/R
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routing free C12 total C12 burbidity Lumpersture	on, hr.		e re/GSfit/NaOCI/TV Treated	VR
Ave. Theoretical Hydraulic Detenti Treatment <u>Weekly Sampling Routine</u> free C12 total C12 taubidity temperature pH	on, hr.		e re/GSfit/NaOCI/TV Treated	/R
Ave: Theoretical Hydraulic Detenti Treatment <u>Weekly Sampling Routing</u> free C12 total C12 total C12 turbidity temperature pH Floride Color	on, hr.		e re/GSfit/NaOCI/TV Treated	/R
Ave: Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 barbidity temperature pH Floride Color Hardness	on, hr.		e re/GSftt/NaOCJ/TW Treated 5 - - 5 - - - -	/R
Ave: Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free Cl2 tourbidity temperature pH Fforide Color Hardness Mn	on, hr.		e re/GSftr/NaOCUTW Treated 5 - - 5 5 - - 5 5 5	VR
Ave: Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity turberature pH Floride Color Hardness Mn Fe	on, hr.		e re/GSftt/NaOCJ/TW Treated 5 - - 5 - - - -	/R
Ave: Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity turberature pH Floride Color Hardness Mn Fe	on, hr.		e re/GSftr/NaOCUTW Treated 5 - - 5 5 - - 5 5 5	/R
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free CI2 total CI2 barbidity tamperature pH Floride Color Hardness Mn Fe Alkalinity	on, hr.		e re/GSftr/NaOCUTW Treated 5 - - 5 5 - - 5 5 5	VR
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 tarbidity temperature pH Floride Color Hardness Man Fe Alkelinity Microbial Chemical Dosing and Coerasing Si	per month		e re/GSftr/NaOCUTW Treated 5 - - 5 - 5 5 5 5 5 4	VR
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sambling Routine free C12 total C12 tarbidity temperature pH Floride Color Hardness Mn Fe Allalinity Microbial	per month rategy current		e re/GSftr/NaOCUTW Treated 5 - - 5 5 - - 5 5 5	VR
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 tarbidity temperature pH Floride Color Hardness Man Fe Alkelinity Microbial Chemical Dosing and Coerasing Si	per monih rstegy curreni loev		e re/GSftr/NaOCI/TW Treated 5 - - 5 5 5 5 - 4 4 2 7	/R
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 tarbidity temperature pH Floride Color Hardness Man Fe Alkelinity Microbial Chemical Dosing and Coerasing Si	per month rstegy current low high		e re/GSftr/NaOCUTW Treated 5 - - 5 5 5 5 5 4 4.	VR
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 tarbidity temperature pH Floride Color Hardness Man Fe Alkelinity Microbial Chemical Dosing and Coerasing Si	per monih rstegy curreni loev		e re/GSftr/NaOCUTW Treated 5 - - 5 5 5 5 5 4 4 4.1 2.7 4.8	
Ave: Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 tarbidity temperature pH Floride Color Hardness Mn Fe Alkalinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coagniants	per month rategy current low high type adjustment current		c re/GSftr/NaOCU/TW Treated 5 - - 5 5 5 5 5 5 - 4 4 2.7 4.8 KMmO4	
Ave: Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 tarbidity temperature pH Floride Color Hardness Mn Fe Alkalinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coagniants	per month rategy current low high type adjustment current low		c re/GSftr/NaOCU/TW Treated 5 - - 5 5 5 5 5 5 - 4 4 2.7 4.8 KMmO4	
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 tarbitity temperature pH Floride Color Hardness Mn Fe Allealinity Microbial Chemical Dosing and Operating St Congolants	per month rstegy current low high type adjustment adjustment low bigh		c re/GSftr/NaOCU/TW Treated 5 - - 5 5 5 5 5 5 - 4 4 2.7 4.8 KMmO4	
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free CI2 total CI2 tarbidity temperature pH Floride Color Hardness Mn Fe Alkalinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Cogrulants	per month rategy current low high type current low high type		c re/GSftr/NaOCU/TW Treated 5 - - 5 5 5 5 5 5 - 4 4 2.7 4.8 KMmO4	
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sambling Routine free C12 total C12 tarbidity temperature pH Floride Color Hardness Mn Fe Allralinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coagniants Folymer	per month rategy current low high type adjustment current low high type adjustment		c re/GSftr/NaOCU/TW Treated 5 - - 5 5 5 5 5 5 - 4 4 2.7 4.8 KMmO4	
Ave: Theoretical Hydraulic Detenti Treatment Weekly, Sampling Routine free C12 turbidity temperature pH Floride Color Hardness Mn Fe Allratinity Microbial Chemical Dosing and Operating St Coagniants Folymer	per month rstegy current low high type adjustment current low high type adjustment current		c re/GSftr/NaOCU/TW Treated 5 - - 5 5 5 5 5 5 - 4 4 2.7 4.8 KMmO4	
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 tambridity temperature pH Floride Color Hardness Mn Fe Alkalinity Microbial Cosgniants Folymer	per month rategy current low high type adjustment current low high type adjustment current low		c re/GSftr/NaOCU/TW Treated 5 - - 5 5 5 5 5 5 - 4 4 2.7 4.8 KMmO4	
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 tambridity temperature pH Floride Color Hardness Mn Fe Alkalinity Microbial Cosgniants Folymer	per month rstegy current low high type adjustment current low high type adjustment current		c re/GSftr/NaOCU/TW Treated 5 - - 5 5 5 5 5 5 - 4 4 2.7 4.8 KMmO4	
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 tarbidity temperature pH Floride Color Hardness Mn Fe Allalinity Microbial Chemical Dosing and Operating St Cosgolants Polymer Soda Ash	per month retegy current low high type adjustment current low high type adjustment current low high		c re/GSftr/NaOCU/TW Treated 5 - - 5 5 5 5 5 5 - 4 4 2.7 4.8 KMmO4	
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 tarbidity temperature pH Floride Color Hardness Mn Fe Allalinity Microbial Chemical Dosing and Operating St Cosgolants Polymer Soda Ash	per month rstegy current low high type adjustment current low high type adjustment current low high adjustment		e re/GSftr/NaOCU/TW Treated 5 - - 5 5 5 5 5 5 5 4 4 4.1 2.7 4.8 KMnO4 based on Mn concer - - - - - - - - - - - - -	
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 tarbidity temperature pH Floride Color Hardness Mn Fe Allalinity Microbial Chemical Dosing and Operating St Cosgolants Polymer Soda Ash	per month rategy current low high type adjustment current low high igh adjustment current low high adjustment current		e re/GSftr/NaOCUTW Treated 5 - - 5 5 5 5 5 5 4 4 4.1 2.7 4.8 KMnO4 based on Mn concer - - - - - - - - - - - - -	
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 tarbidity temperature pH Floride Color Color Color Color Floride Color Altakinity Microbial Chemical Dosing and Operating St Coagrulants Polymer Soda Ash	per month rategy current low high type adjustment current low high type adjustment current low high type adjustment current low high type type		e re/GSftr/NaOCU/TW Treated 5 - - 5 5 5 5 4 4.1 2.7 4.8 KMnO4 based on Mn concer - - - - - - - - - - - - -	
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free CI2 total CI2 tarbidity temperature pH Floride Color Hardness Mn Fe Alkalinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Cogniants Polymer Soda Ash Disinfection	per month rstegy current low high type adjustment current low high type adjustment current low high type adjustment current low high type		e re/GSftr/NaOCUTW Treated 5 - - 5 5 5 5 5 5 4 4 4.1 2.7 4.8 KMnO4 based on Mn concer - - - - - - - - - - - - -	
Ave: Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 tarbidity temperature pH Floride Color Hardness Mn Fe Alkalinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coagniants Polymer Soda Ash Disinfection	per month rstegy current low high type adjustment current low high type adjustment current low high high high current low high current current current current current current current current current current current		e re/GSftr/NaOCU/TW Treated 5 - - 5 5 5 5 4 4.1 2.7 4.8 KMnO4 based on Mn concer - - - - - - - - - - - - -	
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free CI2 total CI2 tarbidity temperature pH Floride Color Hardness Mn Fe Alkalinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Cogniants Polymer Soda Ash Disinfection	per month rategy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low		e re/GSftr/NaOCU/TW Treated 5 - - 5 5 5 5 4 4.1 2.7 4.8 KMnO4 based on Mn concer - - - - - - - - - - - - -	
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free CI2 total CI2 tarbidity temperature pH Floride Color Hardness Mn Fe Alkalinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Cogniants Polymer Soda Ash Disinfection	per month rstery current low high type adjustment current low high type adjustment current low high adjustment current low high type adjustment current low high type adjustment current low high type		e re/GSftr/NaOCU/TW Treated 5 - - 5 5 5 5 4 4.1 2.7 4.8 KMnO4 based on Mn concer - - - - - - - - - - - - -	
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sambling Routine free C12 total C12 tarbidity temperature pH Floride Color Hardness Mn Fe Allralinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coagniants Folymer	per month rategy current low high type adjustment current low high dystment current low high type adjustment current low high type adjustment current low high type		e re/GSftr/NaOCU/TW Treated 5 - - 5 5 5 5 4 4.1 2.7 4.8 KMnO4 based on Mn concer - - - - - - - - - - - - -	
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sambling Routine free C12 total C12 tarbidity temperature pH Floride Color Hardness Mn Fe Alltalinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coagniants Polymer Soda Ash Disinfection T & O control	per month rategy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low		e re/GSftr/NaOCU/TW Treated 5 - - 5 5 5 5 4 4.1 2.7 4.8 KMnO4 based on Mn concer - - - - - - - - - - - - -	
Ave: Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 tarbidity temperature pH Floride Color Hardness Mn Fe Alkalinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coagniants Polymer Soda Ash Disinfection	per month rategy current low high type adjustment current low high dystment current low high type adjustment current low high type adjustment current low high type		e re/GSftr/NaOCU/TW Treated 5 - - 5 5 5 5 4 4.1 2.7 4.8 KMnO4 based on Mn concer - - - - - - - - - - - - -	
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alltalinity Microbial Chemical Dosing and Operating St Coagniants Polymer Soda Ash Disinfection T & O control	per month retery current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low		e re/GSftr/NaOCU/TW Treated 5 - - 5 5 5 5 4 4.1 2.7 4.8 KMnO4 based on Mn concer - - - - - - - - - - - - -	
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 tarbidity temperature pit Floride Color Hardness Mn Fe Alkalinity Microbial Chemical Dosing and Operating Si Congulants Polymer Soda Ash Disinfection T & O control Floride	per month rategy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low		e re/GSftr/NaOCU/TW Treated 5 - - 5 5 5 5 4 4.1 2.7 4.8 KMnO4 based on Mn concer - - - - - - - - - - - - -	
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine Erec C12 coal C12 marbidity tamperature pHI Floride Color Hardness Mn Fe Alkalinity Microbial Chemical Dosing and Operating St Coagulants Polymer Soda Ash Disinfection T & O control	per month retery current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low		e re/GSftr/NaOCU/TW Treated 5 - - 5 5 5 5 4 4.1 2.7 4.8 KMnO4 based on Mn concer - - - - - - - - - - - - -	

		-	NTHIA. May-94
Type of Sample		Raw	Distributed
Temperature	deg C	11	13
pH Can the thirty	1 Car 13-1-1-	8.6	8.2
Conductivity Turbidity	Miro ohma/c NTU	1100	1075
Total Chlorine	mg/L	NA	0.15
Free Chilorine	mg/L	NA	0.05
Color	TCU	10	10
Ammonia	mg/L	-	0.23
Odour Type		-	-
Odour Intensity Flavour Profile	out of 3		
Flavour Comment	out of 10	-	-
THME	ug/L	no Cl	no Cl
Total Coliforms	cfu/100ml	<1	<1
Fecal Coliforms	cfu/100ml	<1	<1
Heterotropic Plate Count (48 hr)	cfu/1 mL	40	182
Heterotropic Plate Count (7 daya) Klebniella		437	253
Fecal Streptococcus	cfu/100ml cfu/100ml	-	-
Molds	cfu/1 mL	-	
Yeast	cfu/1 mL	1	E.
Iron Reducing Bacteria	org/1 ml	46	>110
Sulfate Reducing Bacteria	org/1 mL	<0,3	<0.3
Sulfite Reducing Bacteria	org/1 ml.	<0.3	0.3
Thiomifate Reducing Bacteria	org/1 ml.	>110	>110
Iron Oxidizing Bacteria	org/1 ml.	46	>110
Plant Operations		t	
Person hours to operate plant per v	week		3
T & O problems			yes
· bioonene			Chlorine
Hardness	high		-
	low		
			+1 ·
Recycel Filter Backwash			-
Distribution surface fluching			
Distribution system flushing progr			?
Storage	m3		60
Average Daily Production	m3		35
Ave. Theoretical Hydraulic Detenti	on, hr.		41.1
Trachurant			Wager
		Para-	NBOCI/TWR
Weekly Sampling Routine		Raw	Distributed
Weekly Sampling Routine free Cl2		Raw	Distributed ?
Weekly Sampling Routine free C12 total C12		Raw	Distributed
Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidity temperature		Raw	Distributed ? ?
Weekly Sampling Routing free C12 total C12 turbidity temperature pH		Raw	Distributed ? ? ?
Weekly Sampling Routine free C12 total C12 burbidity temperature pH Floride		Raw	Distributed ? ? ? ?
Weekly Sampling Routine free Cl2 total Cl2 utrbidity temperature pH Floride Color	. <u></u>	Raw	Distributed ? ? ? ?
Weekly Sampling Routine free C12 total C12 burbfidty temperature pH Floride Color Hardness		Raw	Distributed ? ? ? ?
Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn		Raw	Distributed ? ? ? ?
Weekly Sampling Routine free C12 total C12 turbidity turbidity Fi Fonde Color Hardness Ma Fe		Raw	Distributed ? ? ? ?
Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn		Raw	Distributed ? ? ? ?
Weekly Sampling Routine free C12 total C12 turbidity turbidity Fi Fonde Color Hardness Ma Fe	per month	Raw	Distributed ? ? ? ?
Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Dosing and Operating St	per month	Raw	Distributed ? ? ? ?
Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Dosing and Operating St	per month ratery current	Ræw	Distributed ? ? ? ?
Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkalimity	per month rstery current iow	Raw	Distributed ? ? ? ?
Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Dosing and Operating St	per month recey current iow high	Raw	Distributed ? ? ? ?
Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Dosing and Operating St	per month rategy current low high type	Ræw	Distributed ? ? ? ?
Weekly Sampling Routine free C12 total C12 turbidity temperature pft Floride Color Hardness Ma Fe Allcalimity Microbial Chemical Dosing and Operating St Coegulants	per month recey current iow high	Raw	Distributed ? ? ? ?
Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Dosing and Operating St	per month rstegy current low high type adjustment	Rgw	Distributed ? ? ? ?
Weekly Sampling Routine free C12 total C12 turbidity temperature pft Floride Color Hardness Ma Fe Allcalimity Microbial Chemical Dosing and Operating St Coegulants	per month ratesy current low high type adjustment current low high	Raw	Distributed ? ? ? ?
Weekly Sampling Routine free C12 total C12 turbidity temperature pft Floride Color Hardness Ma Fe Allcalimity Microbial Chemical Dosing and Operating St Coegulants	per month rategy current low high type adjustment current low high type	Ræw	Distributed ? ? ? ?
Weekly Sampling Routine free C12 total C12 turbidity temperature pfi Floride Color Hardness Mn Fe Allcalimity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coggulants	per month retegy current low high type adjustment current low bigh type	Raw	Distributed ? ? ? ?
Weekly Sampling Routine free C12 total C12 turbidity temperature pfi Floride Color Hardness Mn Fe Allcalimity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coggulants	per monuh retery current low high type adjustment current low bigh type adjustment current	Raw	Distributed ? ? ? ?
Weekly Sampling Routine free C12 total C12 turbidity temperature pfi Floride Color Hardness Mn Fe Allcalimity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coggulants	per month rategy current low sdjustnent current low high type adjustnent current low	Ræw	Distributed ? ? ? ?
Weekly Sampling Routine free C12 total C12 turbidity temperature pfi Floride Color Hardness Mn Fe Allcalimity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coggulants	per month rategy current low high type adjustment current low high type adjustment current low high	Ræw	Distributed ? ? ? ?
Weekly Sampling Routine free C12 total C12 tautbidity temperature pH Floride Color Hardness Mn Fe Alcalimity Microbial Chemical Dosing and Operating St Coegulants Polymer Soda ASh	per month rategy current low sdjustnent current low high type adjustnent current low	Raw	Distributed ? ? ? ?
Weekly Sampling Routine free C12 total C12 turbidity temperature pft Floride Color Hardness Ma Fe Allcalimity Microbial Chemical Dosing and Operating St Coegulants	per month recey current low high type adjustment current low type adjustment current low high adjustment	Raw	Distributed ? ? ? ? ? ?
Weekly Sampling Routine free C12 total C12 tautbidity temperature pH Floride Color Hardness Mn Fe Alcalimity Microbial Chemical Dosing and Operating St Coegulants Polymer Soda ASh	per month rategy current low bigh type sdjustment current low bigh bigh current low bigh bigh sdjustment current current current current	Ræw	Distributed ? ? ? ? ? ?
Weekly Sampling Routine free C12 total C12 tautbidity temperature pH Floride Color Hardness Mn Fe Alcalimity Microbial Chemical Dosing and Operating St Coegulants Polymer Soda ASh	per month relegy current low high type adjustment current low high edjustment current low high high type	Raw	Distributed ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ?
Weekly Sampling Routine free C12 total C12 turbidity temperature pft Floride Color Hardness Ma Fe Allcalimity Microbial Chemical Dosing and Operating St Coegulants Polymer Soda Ash Disinfection	per month retery current low high type adjustment current low high type adjustment current low high type adjustment current	Raw	Distributed ? ? ? ? ? ?
Weekly Sampling Routine free C12 total C12 tautbidity temperature pH Floride Color Hardness Mn Fe Alcalimity Microbial Chemical Dosing and Operating St Coegulants Polymer Soda ASh	per month retery current low high type adjustment current low high edjustment current low high high type adjustment current low high type adjustment current low	Ræw	Distributed ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ?
Weekly Sampling Routine free C12 total C12 turbidity temperature pft Floride Color Hardness Ma Fe Allcalimity Microbial Chemical Dosing and Operating St Coegulants Polymer Soda Ash Disinfection	per month rategy current low high type adjustment current low high adjustment current low high adjustment current low high type adjustment current low	Ræw	Distributed ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ?
Weekly Sampling Routine free C12 total C12 turbidity temperature pft Floride Color Hardness Ma Fe Allcalimity Microbial Chemical Dosing and Operating St Coegulants Polymer Soda Ash Disinfection	per month retery current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment low high type adjustment low high type adjustment low high type	Raw	Distributed ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ?
Weekly Sampling Routine free C12 total C12 turbidity temperature pft Floride Color Hardness Ma Fe Allcalimity Microbial Chemical Dosing and Operating St Coegulants Polymer Soda Ash Disinfection	per month retery current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment type adjustment current low high type bigh type adjustment current low high type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type bight type type bight type type bight type type bight type type bight type type type type bight type type type type type type type typ	Ræw	Distributed ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ?
Weekly Sampling Routine free C12 total C12 turbidity temperature pft Floride Color Hardness Ma Fe Alkalinity <u>Microbial</u> Chemical Dosing and Operating St Cogulants Polymer Soda Ash Disinfection	per month rstegy current low high type sdjustment current low high dysenent current low high type adjustment current low high type adjustment current low	Ræw	Distributed ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ?
Weekly Sampling Routine free C12 total C12 turbidity temperature pft Floride Color Hardness Ma Fe Allcalimity Microbial Chemical Dosing and Operating St Coegulants Polymer Soda Ash Disinfection	per monuh rstery current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	Raw	Distributed ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ?
Weekly Sampling Routine free C12 total C12 turbidity temperature pft Floride Color Hardness Ma Fe Alkalinity <u>Microbial</u> Chemical Dosing and Operating St Cogulants Polymer Soda Ash Disinfection	per month retery current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	Raw	Distributed ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ?
Weekly Sampling Routine free C12 total C12 turbidity temperature pft Floride Color Hardness Ma Fe Alkalinity <u>Microbial</u> Chemical Dosing and Operating St Cogulants Polymer Soda Ash Disinfection	per monuh rstery current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	Ræw	Distributed ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ?

1			DESMARAIS	
Time of Semple		Raw	23-Ang-94	Distributed
Type of Sample Temperature	deg C	19	Treated 20	11
pH	ucg c	8.2	7.4	7.4
Conductivity	Miro ohms/c	280	590	590
Turbidity	NTU	4.7	3	3.2
Total Chiorine	mg/L	-	1.36	0.8
Free Chlorine	mg/L	-	0.86	0.53
Color	TCU	20	>0	>0
Ammonia	mg/L	0.028	-	0.023
Odour Type		grassy	chlorine + swamp	swampy / grassy
Odour Intensity	out of 3	0.1	1	1
Flavour Profile	out of 10	NA	3.5	4
Flavour Comment				
THMs	ug/L		161	174
111045	ug/t	-	101	1/4
Total Coliforms	cfa/100ml	699	<1	<1
Fecal Coliforms	cfu/100ml	1	<1	<1
Heterotropic Plate Count (48 hr)	cfs/1 mL	111	0	<1
Heterotropic Plate Count (7 days)	cfu/l mL	45	1	<1
Klebsiella	cfa/100ml	confi	<1	•
Fecal Streptococcus	cfu/100ml	5	<1	<1
Molds	cfu/1 mL	5	<1	<1
Yeast	cfu/1 mL	21	<1	1
Iron Reducing Bacteria	org/1 mL	>110	<0.3	<0.3 <0.3
Sulfate Reducing Bacteria Sulfite Reducing Bacteria	org/1 mL.	4	<0.3	<0.3
Thosulfate Reducing Bacteria	org/1 mL org/1 mL	>110	46	2
Iron Oxidizing Bacteria	org/1 mL	>110	<0.3	<0.3
and a constrained a constrained			·····	
Plant Operations			·	
Person hours to operate plant per	week	1	14	
		ł		hpc (me 35 , 48 hr)
T&O problems			yes	
			in the spring there is	s a fisfy smell allthe ti
Hardness	high		-	
	low		•	
Den 153 de Devienent			not measured	
Recycel Filter Backwash			no	
Distribution system flushing progr			yes	
Evisitioning system nushing brokt		1	yes	
Storage	m3	-	1137	
Average Daily Production	m3		300	
Ave. Theoretical Hydraulic Detenti			91.0	
·····				
Treatment		TO/C	A/Flc/Ch/Rfll/pH/Cl	2/TWR
Weekly Sampling Routine		Raw	Treated	
free C12			7	
total Cl2			7	
turbidity		7	7	
temperature			7	
pH Floride			ľ	
Color				
			-	
Hardness		1		
Hardness Mn			1	
			1	
Mn			-	
Mn Fe Alkalimity			-	
Mn Fe A <u>lkalinity</u> Microbial	per month		-	
Mn Fe Allralinity Microbial Chemical Dosing and Operating Si	TRICETY		-	
Mn Fe A <u>lkalinity</u> Microbial	current.		120	
Mn Fe Allralinity Microbial Chemical Dosing and Operating Si	ralegy current low		1 - 120 80	
Mn Fe Allralinity Microbial Chemical Dosing and Operating Si	rategy current low high		1 - 120 80 150	
Mn Fe Allralinity Microbial Chemical Dosing and Operating Si	ralegy current low high type		1 - 120 80 150 aium	e in cleatifier
Mn Fe Alkalinity Microbial <u>Chemical Dosing and Operating St</u> Coggniants	rategy current low high type adjustment		1 - 120 80 150 alum based on floc settlin	g in clarifier
Mn Fe Allralinity Microbial Chemical Dosing and Operating Si	rategy current low high type adjustment current		1 - 120 80 150 aium	g in clarifier
Mn Fe Alkalinity Microbial <u>Chemical Dosing and Operating St</u> Coggniants	rategy current low high type adjustment current low		1 - 120 80 150 alum based on floc settlin	g in clarifier
Mn Fe Alkalinity Microbial <u>Chemical Dosing and Operating St</u> Coggniants	rategy current low high type adjustment current		1 - 120 80 150 alum based on floc settlin	g in clarifier
Mn Fe Alkalinity Microbial <u>Chemical Dosing and Operating St</u> Coggniants	rategy current low high type adjustment current low high		1 - 120 80 150 alum based on floc settlin 0.5 -	g in clarifier
Mn Fe Alkalinity Microbial <u>Chemical Dosing and Operating St</u> Coggniants	rategy current low high digh sdjustment current low high type adjustment current		1 - 120 80 150 alum based on floc settlin 0.5 - - ? never change 100	g in clarifier
Mn Fe Alkabinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coggulants Polymer	rategy current low high type adjustment current low high type adjustment current low		1 - 120 80 150 atum based on floc settlim 0.5 - - ? never change 100 60	g in elarifier
Mn Fe Alkabinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coggulants Polymer	rategy current low high type adjustment current low high type adjustment current Low high		1 - 120 80 150 alum based on floc settlin 0.5 - - ? never change 100 60 240	g in clarifier
Mn Fe Alkahinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coggnamiz Polymer Soda Ash	rategy current low high type adjustment current low high type adjustment current low high sdjustment		1 - 120 80 150 abum based on floc settlin 0.5 - ? never change 100 60 240 based on pH	g in clarifier
Mn Fe Alkabinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coggulants Polymer	rategy current low high type adjustment current low high type adjustment current low high adjustment current		1 - 120 80 150 atum based on floc settlim 0.5 - - ? never change 100 60 240 based on pH 3.8	g in clarifier
Mn Fe Alkahinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coggnamiz Polymer Soda Ash	rategy current low high type adjustment current low high adjustment current low high adjustment current low		1 - 120 80 150 alum based on floc settlin 0.5 - - ? never change 100 60 240 based on pH 3.8 1	g in clarifier
Mn Fe Alkahinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coggnamiz Polymer Soda Ash	rategy current low high type adjustment current low high type adjustment current low high high high high high		1 - 120 80 150 atum based on floc settlim 0.5 - ? never change 100 60 240 bassed on pH 3.8 1.5 .2	g in clarifier
Mn Fe Alkahinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coggnamiz Polymer Soda Ash	rategy current low high type adjustment current low high type adjustment current low high high high type type type type	er week during virit	1 120 80 150 aium based on floc settlin 0.5 - ? never change 100 60 240 based on pH 3.8 1 5.2 C12 gas	g in clarifier
Mn Fe Alkahinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coggnants Polymer Soda Ash Disinfection	rategy current low high type adjustment current low high type adjustment current low high high high high high	er week during visit	1 120 80 150 aium based on floc settlin 0.5 - ? never change 100 60 240 based on pH 3.8 1 5.2 C12 gas	g in clarifier
Mn Fe Alkahinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coggnamiz Polymer Soda Ash	rategy current low high type adjustment current low high type adjustment current low high adjustment current low high type adjustment	er week during visit	1 120 80 150 alum based on floc settlin 0.5 - ? never change 100 60 240 based on pH 3.8 1 5.2 Cl2 gas based on residual	g in clarifier
Mn Fe Alkahinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coggnants Polymer Soda Ash Disinfection	rategy current low high type adjustment current low high type adjustment current low high high adjustment current low high current low current	er week during visit	1 120 80 150 alum based on floc settlin 0.5 - ? never change 100 60 240 based on pH 3.8 1 5.2 Cl2 gas based on residual	g in clarifier
Mn Fe Alkahinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coggnants Polymer Soda Ash Disinfection	ratesy current low high type adjustment current low high adjustment current low high adjustment current low high bow	er week during visit	1 120 80 150 alum based on floc settlin 0.5 - ? never change 100 60 240 based on pH 3.8 1 5.2 Cl2 gas based on residual	g in clarifier
Ma Fe Alkahinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coagniants Polymer Soda Ash Disinfection	ratery current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high	er week during visit	1 - 120 80 150 alum based on floc settlin 0.5 - - ? never change 100 60 240 based on pH 3.8 1 5.2 Cl2 gas based on residual 1 -	g in clarifier
Ma Fe Alkahinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coggulants Polymer Soda Ash Disinfection	rategy current low high type adjustment current low high type adjustment current low high adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	er week during vinit	1 120 80 150 atum based on floc settlim 0.5 - - ? never change 100 60 240 based on pH 3.8 1 5.2 Cl2 gas based on residual 1 - KMnO4	g in clarifier
Mn Fe Alkabinity Microbial <u>Chemical Dosing and Operating St</u> Coegulants Polymer Soda Ash Disinfection	rategy current low high type adjustment eurent low high type adjustment current low high high type adjustment current low high type adjustment current low high type adjustment current low	er week during visit	1 120 80 150 atum based on floc settlim 0.5 - - ? never change 100 60 240 based on pH 3.8 1 5.2 Cl2 gas based on residual 1 - KMnO4	g in clarifier
Ma Fe Alkahinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coagniants Polymer Soda Ash Disinfection	ratesy current low high type adjustment current low high adjustment current low high adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type	er week during visit	1 120 80 150 atum based on floc settlim 0.5 - - ? never change 100 60 240 based on pH 3.8 1 5.2 Cl2 gas based on residual 1 - KMnO4	g in clarifier
Ma Fe Alkahnity Microbial <u>Chemical Dosing and Operating St</u> Coggniants Polymer Soda Ash Disinfection	rategy current low high type adjustment eurent low high type adjustment current low high high type adjustment current low high type adjustment current low high type adjustment current low	er week during visit	1 120 80 150 atum based on floc settlim 0.5 - - ? never change 100 60 240 based on pH 3.8 1 5.2 Cl2 gas based on residual 1 - KMnO4	g in elsnifter

			EDSON	
			11-Ang-94	
Type of Sample	dan C	Raw	Treated	Distributed
Temperature pH	deg C	12.6	11.6	13.3
Conductivity	Miro ohma/c	8.9 950	8.1 890	8.7 900
Turbidity	NTU	0.22	0.6	0.58
Total Chlorine	mg/L	NA	1.43	0.59
Free Chlorine	mg/L	NA	0.65	0.1
Color	TCU	0	0	0
Ammonia	mg/L	0.26		0.1
Odour Type		sulfur	none	none
Odour Intensity	out of 3	3	0	0
Flavour Profile	out of 10	NA	6	6
Flavour Comment				
THMs	ug/L		24	15
1 FLVIA	age:		24	1.5
Total Coliforms	cfu/100ml	<1	<1	<1
Fecal Coliforms	cfu/100ml	<1	<1	<1
Heterotropic Plate Count (48 hr)	cfu/1 mL	<1	2	<1
Heterotropic Plate Count (7 days)		18	<1	11
Klebsiella	cfu/100ml	1	<1	<1
Fecal Streptococcus	cfu/100ml	<1	<1	<1
Moldz	cfu/1 mL	<1	<1	<1
Yeast	cfu/l mL	<1	1	0
Iron Reducing Bacteria	org/1 mL	>110	<0.3	0.4
Sulfate Reducing Bacteria	org/1 mL	<0.3	<0.3	<0.3
Sulfite Reducing Bacteria Thosulfate Reducing Bacteria	ong/1 mL ong/1 mL	<0.3 0.4	<0.3	<0.3 24
Iron Oxidizing Bacteria	org/1 mL	<0.3	<0.3	0.7
	- Brit I Mar		-9-0	v./
Plant Operations				· · · · · · · · · · · · · · · · · · ·
Person hours to operate plant per v	week		21	
T & O problems			no	
r a o prodeliz		e	noe since degas plar	1 [†]
Hardness	high		?	μ
	low		2	
			mian well soft, the c	thers are hard
Recycel Filter Backwash			•	
Distriction system misning progr	20112		yes	
Distribution system flushing progr				
Storage	m3		7115	
Storage Average Daily Production	m3 m3		7115 2958	
Storage	m3 m3		7115	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment	m3 m3		7115 2958 57.7 NeOCI/Act/TWR	
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Rontine	m3 m3	Raw	7115 2958 57.7 NaOCI/Act/TWR Treated	
Storrage Average Duily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12	m3 m3	Raw	7115 2958 57.7 NeOCI/Act/TWR	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12	m3 m3	Raw	7115 2958 57.7 NaOCI/Act/TWR Treated	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 total C12 turbidky	m3 m3	Raw	7115 2958 57.7 NaOCI/Act/TWR Treated	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly <u>Sampling Routine</u> free Cl2 total Cl2 turbidity temperature	m3 m3	Raw	7115 2958 57.7 NaOCI/Act/TWR Treated	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH	m3 m3	Ratew	7115 2958 57.7 NBOCU/Act/TWR Trested 7 - -	
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment <u>Weekly Sampling Routine</u> free Cl2 total Cl2 turbidity temperature pH Floride	m3 m3	Raw	7115 2958 57.7 NaOCI/Act/TWR Treated	
Storage Average Daily Production Ave. Theoretical Hydrautic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color	m3 m3	Ranw	7115 2958 57.7 NBOCU/Act/TWR Trested 7 - -	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH	m3 m3	Raw	7115 2958 57.7 NBOCU/Act/TWR Trested 7 - -	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 total C12 turbidky temperature pH Floride Color Hardness Mn Fe	m3 m3	Raw	7115 2958 57.7 NBOCU/Act/TWR Trested 7 - -	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness	m3 m3	Rew	7115 2958 57.7 NBOCU/Act/TWR Trested 7 - -	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free Cl2 toubidity temperature pH Floride Color Hardness Mn Fe Alkatimity	m3 m3 ion, hr.	Ratw	7115 2958 57.7 Trested 7 - - 0.25 - - - - - - - -	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbiday temperature pH Floride Color Hardness Mn Fe Alkatinity Microbial	m3 m3 on, hr.	Raw	7115 2958 57.7 NBOCU/Act/TWR Trested 7 - -	
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 turbidity tempensure pH Floride Color Hardness Mn. Fe Alkatinity Microbial Chemical Doxing and Operating St	m3 m3 on, hr.	Ratw	7115 2958 57.7 Trested 7 - - 0.25 - - - - - - - -	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbiday temperature pH Floride Color Hardness Mn Fe Alkatinity Microbial	m3 m3 ion, hr. per month mergy current	Ratev	7115 2958 57.7 NBOCU/Act/TWR Trested 7 - - 0.25 - - 8	
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 tutbidity Lemperature pH Floride Color Hardness Mn. Fo Alkatinity Microbial Chemical Dosing and Operating St	m3 m3 ion, hr. per month retegy current low	Raw	7115 2958 57.7 NBOCU/Act/TWR Trested 7 - - 0.25 - - 8	
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 turbidity tempensure pH Floride Color Hardness Mn. Fe Alkatinity Microbial Chemical Doxing and Operating St	m3 m3 ion, hr. per month mergy current	Raw	7115 2958 57.7 NBOCU/Act/TWR Trested 7 - - 0.25 - - 8	
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 turbidity tempensure pH Floride Color Hardness Mn. Fe Alkatinity Microbial Chemical Doxing and Operating St	m3 m3 ion, hr. per month <u>retery</u> current iow high	Raw	7115 2958 57.7 NBOCU/Act/TWR Trested 7 - - 0.25 - - 8	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbday temparature pH Floride Color Hardness Mn. Fe Alkatinity Microbial Chemical Dosing and Operating St Coegulants	m3 m3 on, hr. per month <u>reterv</u> current low high type adjustment current	Ratw	7115 2958 57.7 NBOCU/Act/TWR Trested 7 - - 0.25 - - 8	
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 turbidity tempensure pH Floride Color Hardness Mn. Fe Alkatinity Microbial Chemical Doxing and Operating St	m3 m3 on, hr. per month <u>reterv</u> current iow high type adjustment current low	Raw	7115 2958 57.7 NBOCU/Act/TWR Trested 7 - - 0.25 - - 8	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbday temparature pH Floride Color Hardness Mn. Fe Alkatinity Microbial Chemical Dosing and Operating St Coegulants	m3 m3 on, hr. per month reserve current low high type adjustment current low high	Raw	7115 2958 57.7 NBOCU/Act/TWR Trested 7 - - 0.25 - - 8	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbday temparature pH Floride Color Hardness Mn. Fe Alkatinity Microbial Chemical Dosing and Operating St Coegulants	m3 m3 m3 on, hr. per month netrey current low high type adjustment current low high type type	Ratw	7115 2958 57.7 NBOCU/Act/TWR Trested 7 - - 0.25 - - 8	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 tutbidky temperature pH Floride Color Hardness Mn Fe Alkatinity Microbial Chemical Doxing and Operating St Cogularits	m3 m3 on, hr. per month recey current low high type adjustment current low high type adjustment	Raw	7115 2958 57.7 NBOCU/Act/TWR Trested 7 - - 0.25 - - 8	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbday temparature pH Floride Color Hardness Mn. Fe Alkatinity Microbial Chemical Dosing and Operating St Coegulants	m3 m3 m3 ion, hr. per month rategy current low high type adjustment current low high type adjustment current	Raw	7115 2958 57.7 NBOCU/Act/TWR Trested 7 - - 0.25 - - 8	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 tutbidky temperature pH Floride Color Hardness Mn Fe Alkatinity Microbial Chemical Doxing and Operating St Cogularits	m3 m3 m3 on, hr. per month reterv current low high type adjustment current low high type adjustment current low	Ratew	7115 2958 57.7 NBOCU/Act/TWR Trested 7 - - 0.25 - - 8	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 tutbidky temperature pH Floride Color Hardness Mn Fe Alkatinity Microbial Chemical Doxing and Operating St Cogularits	m3 m3 m3 ion, hr. per month reserv current low high type adjustment current low high type adjustment current low high	Ratw	7115 2958 57.7 NBOCU/Act/TWR Trested 7 - - 0.25 - - 8	
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Ma. Fe Alkalinity Microbial Chemical Doxing and Operating St Congulants Polymer Soda Ash	m3 m3 m3 on, hr. per month reterv current low high type adjustment current low high type adjustment current low	Raw	7115 2958 57.7 NBOCU/Act/TWR Trested 7 - - 0.25 - - 8	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 tutbidky temperature pH Floride Color Hardness Mn Fe Alkatinity Microbial Chemical Doxing and Operating St Cogularits	m3 m3 m3 con, hr. per month rategy current low high type adjustment current low high type adjustment low high type adjustment	Ratev	7115 2958 57.7 NBOCUAEDTWR 7 - - - 0.25 - - - 8 - - - 8 - - - - - - - - - - -	
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Ma. Fe Alkalinity Microbial Chemical Doxing and Operating St Congulants Polymer Soda Ash	m3 m3 m3 on, hr. per month <u>reterv</u> current low high type adjustment current low high type adjustment current low high type adjustment current low	Ratw	7115 2958 57.7 NaOCU/AED/TWR Treated 7 - - - 0.25 - - - - - - - - - - - - - - - - - - -	
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Ma. Fe Alkalinity Microbial Chemical Doxing and Operating St Congulants Polymer Soda Ash	m3 m3 m3 ion, hr. per mosth reserv current low high type adjustment current low high type adjustment current low high low high low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh bigh low bigh low bigh low bigh bigh low bigh low bigh low bigh low bigh low bigh low bigh bigh low bigh low bigh low bigh bigh low bigh bigh bigh bigh bigh bigh bigh bigh	Raw	7115 2958 57.7 NBOCUAEPTWR Treated 7 - - 0.25 - - - - - - - - - - - - - - - - - - -	
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routine free C12 total C12 turbidaty temparature pH Floride Color Hardness Mn. Fe Alkainity Microbial Chemical Dosing and Operating St Cosgulants Polymer Soda Ash Disinfection	m3 m3 m3 con, hr. per month rescey current low high type adjustment current low high type adjustment current low high type adjustment current low high hogh hogh hogh hogh hogh hogh	Ratev	7115 2958 57.7 NBOCU/Act/TWR 7 - - 0.25 - - - 8 - - - 8 - - - - - - - - - - -	
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routine free C12 total C12 turbidaty temparature pH Floride Color Hardness Mn. Fe Alkainity Microbial Chemical Dosing and Operating St Cosgulants Polymer Soda Ash Disinfection	m3 m3 m3 con, hr. per month rescey current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	Ratw	7115 2958 57.7 NaOCU/Act/TWR Treated 7 - - - 0.25 - - - - - - - - - - - - - - - - - - -	
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routine free C12 total C12 turbidaty temparature pH Floride Color Hardness Mn. Fe Alkainity Microbial Chemical Dosing and Operating St Cosgulants Polymer Soda Ash Disinfection	m3 m3 m3 on, hr. per month reterv current low high type adjustment current low high type adjustment current low high type adjustment current low high bay high bow high bow high bow high bow high bow high bow high bow high bow box box box box box box box box box box	Raw	7115 2958 57.7 NaOCU/Act/TWR Treated 7 - - - 0.25 - - - - - - - - - - - - - - - - - - -	
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routine free C12 total C12 turbidaty temparature pH Floride Color Hardness Mn. Fe Alkainity Microbial Chemical Dosing and Operating St Cosgulants Polymer Soda Ash Disinfection	m3 m3 ion, hr. per mosth reserv current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high how high type adjustment current low high how high type adjustment current low high how high how high how high how high how high how high how high how high how how high how high how how how how how how how how how ho	Raw	7115 2958 57.7 NaOCU/Act/TWR Treated 7 - - - 0.25 - - - - - - - - - - - - - - - - - - -	
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routine free C12 total C12 turbidaty temparature pH Floride Color Hardness Mn. Fe Alkainity Microbial Chemical Dosing and Operating St Cosgulants Polymer Soda Ash Disinfection	m3 m3 m3 con, hr. per month reterv current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type type sdjustment current low high type type sdjustment current low high type type sdjustment current low high type type sdjustment current low high type type sdjustment current low high type type sdjustment current low high type sdjustment current low high type sdjustment current low high type type sdjustment current low high type type sdjustment current low high type type sdjustment current low high type type type type sdjustment current low high type type type type sdjustment current low high type type type type type type type type	Ratw	7115 2958 57.7 NaOCU/Act/TWR Treated 7 - - - 0.25 - - - - - - - - - - - - - - - - - - -	
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Samuling Routine free C12 total C12 tutbidky temperature pH Floride Color Hardness Mn Fe Alkatinity Microbial Chemical Doxing and Operating St Cogularits Polymer Soda Ash Disinfection	m3 m3 m3 ion, hr. per month retery current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	Raw	7115 2958 57.7 NaOCU/Act/TWR Treated 7 - - - 0.25 - - - - - - - - - - - - - - - - - - -	
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Samuling Routine free C12 total C12 tutbidky temperature pH Floride Color Hardness Mn Fe Alkatinity Microbial Chemical Doxing and Operating St Cogularits Polymer Soda Ash Disinfection	m3 m3 m3 on, hr. per mosth recev current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type current low high type adjustment current low high type current low high type adjustment current low high type current low high type adjustment current low high type current low high type current low high type current low high type current low high type current low high type current low high type current low high type current low high type current low high type current current low high type current current low high type current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current curent current current current current current current c	Raw	7115 2958 57.7 NaOCU/Act/TWR Treated 7 - - - 0.25 - - - - - - - - - - - - - - - - - - -	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temparature pH Floride Color Hardness Mn. Fe Alkatinity Microbial Chemical Doxing and Operating St Cosgulants Polymer Soda Ash	m3 m3 m3 on, hr. per month <u>merev</u> current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	Ratw	7115 2958 57.7 NaOCU/Act/TWR Treated 7 - - - 0.25 - - - - - - - - - - - - - - - - - - -	
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Samuling Routine free C12 total C12 tutbidky temperature pH Floride Color Hardness Mn Fe Alkatinity Microbial Chemical Doxing and Operating St Cogularits Polymer Soda Ash Disinfection	m3 m3 m3 m3 on, hr. per month recevent current low high type adjustment current low high type adjustment current low high type adjustment current low high high type adjustment current low high high high high type adjustment current low high high high high high high high hig	Raw	7115 2958 57.7 NaOCU/Act/TWR Treated 7 - - - 0.25 - - - - - - - - - - - - - - - - - - -	
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Samuling Routine free C12 total C12 tutbidky temperature pH Floride Color Hardness Mn Fe Alkatinity Microbial Chemical Doxing and Operating St Cogularits Polymer Soda Ash Disinfection	m3 m3 m3 on, hr. per month <u>merev</u> current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	Raw	7115 2958 57.7 NaOCU/Act/TWR Treated 7 - - - 0.25 - - - - - - - - - - - - - - - - - - -	

			FAIRVIEW 18-Jul-94	
Type of Sample		Rew	Treated	Distributed
Temperature	deg C	13.8	15	13.1
рН	-	7.7	7	7.2
Conductivity	Miro ohma/c		270	300
Turbidity	NTU	4.6	0.11	0.15
Total Chlorine	mg/L	NA NA	0.42	0.53 0.36
Free Chlorine Color	mg/L TCU	15	0.35	0.36
Ammonia	mg/L	-	-	-
Odour Type		none	chlorine	chlorine
Odour Intensity	out of 3	0	2	1.5
Flavour Profile	out of 10	NA	8	8
Flavour Comment				
THMs	ug/L		56	61
1 FLVDs	ugit	-	~	01
Total Coliforms	cfu/100ml	confi	<1	<1
Fecal Colifornia	cfu/100ml	17	<1	<1
Heterotropic Plate Count (48 hr)	cfu/1 mL	194	<1	6
Heterotropic Plate Count (7 days)	cfu/l mL	2800	1	8
Klebniella Fecal Streptococcus	cfu/100ml cfu/100ml	confl 77	<1 <1	<1 <1
Molds	cfu/1 mL	1	<1	<1
Yeast	cfu/l mL	260	<1	1
Iron Reducing Bacteria	org/1 mL	>110	<0.3	?
Sulfate Roducing Bacteria	org/1 mL	2	0.4	0.9
Sulfite Reducing Bacteria	org/1 mL	110	<0.3	<0.3
Thiosulfate Reducing Bacteria	ong/1 mL	>110	0.9	2
Iron Oxidizing Bacteria	org/1 mL	9	<0.3	21
		1	1	
Plant Operations		1	I	
Person hours to operate plant per v	week		42	
T & O problems			none	
Hardness	high		low	1
	low		low	
Restort Filter Reckmark			constant no	
Recycel Filter Backwash			no	
Distribution system flushing progra	am.		yes	
Storage	m3	Į.	1137	1
Average Daily Production	m3		1420	
Ave. Theoretical Hydraulic Detenti	on, hr.		19.2	
			gal	
Treatment			t/Cga/pH/Clr/Rflt/CL	2/Fh/TWR
Weekly Sampling Routine		Raw	Treated	
free Cl2		- -	7	
free C12 Lotal C12		•		
free Cl2		- - 7 7	7 7	
free C12 total C12 turbidity temperature pH		- - 7	7 7	
free C12 total C12 turbidity temperature pH Floride		- - 7 7 7 -	7 7 7 -	
Free C12 Lotal C12 harbidäty Lemperature pH Floride Color		- - 7 7	7 7 7 -	
Free C12 Lotal C12 turbidity Emperature pH Floride Color Hardness		- 7 7 7 7 7	7 7 7 -	
free CL2 total CL2 turbidity lemperature pH Floride Color Hardness Mn		- - 7 7 7 -	7 7 - 7 - 7	
Free C12 Lotal C12 turbidity Emperature pH Floride Color Hardness		- - 7 7 7 7 7 - 7	7 7 7 7 7 7 7 7	
Free CL2 Lotal CL2 Lurbickity Lemperature pH Floride Color Hardness Mn Fe Alkahmity		- - 7 7 7 7 7 - 7	7 7 7 7 7 7 7 7	
free CL2 total CL2 turbickity temperature pH Flocide Color Hardness Mn Fe Alkahraity Microbial	per month	- - 7 7 7 7 7 - 7	7 7 7 7 7 7 7 7	
free CL2 total CL2 turbidity temperature pH Floride Color Hardness Man Fe Alkahnity Microbial <u>Chemical Doging and Operating SI</u>	TRICETY	- - 7 7 7 7 7 - 7	7 7 - 7 7 7 7 7 7 7 7 9	
free CL2 total CL2 turbickity temperature pH Flocide Color Hardness Mn Fe Alkahraity Microbial		- - 7 7 7 7 7 - 7	7 7 7 7 7 7 7 7	
free CL2 total CL2 turbidity temperature pH Floride Color Hardness Man Fe Alkahnity Microbial <u>Chemical Doging and Operating SI</u>	current.	- - 7 7 7 7 7 - 7	7 7 7 7 7 7 7 7 7 7 7 7 7 9	
free CL2 total CL2 turbidity temperature pH Floride Color Hardness Man Fe Alkahnity Microbial <u>Chemical Doging and Operating SI</u>	rategy current low	- - 7 7 7 7 7 - 7	7 7 - 7 7 7 7 7 7 7 7 7 7 7 9 33 33	
Free CI2 total CI2 turbidity temperature pH Floride Color Hardness Ma Fe Alkalindry Ma Fe Alkalindry Ma Coegniants	rategy current low high type adjustment	- - 7 7 7 7 7 - 7	7 7 - 7 7 - 7 7 7 - 9 33 33 33 33 34um water doesn't chang	e much
free CL2 total CL2 turbidity temperature pH Floride Color Hardness Man Fe Alkahnity Microbial <u>Chemical Doging and Operating SI</u>	rategy current low high type adjustment current	- - 7 7 7 7 7 - 7	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 3 3 3 3 3 3 3 3 3 3 3 3 3 3	e much
Free CI2 total CI2 turbidity temperature pH Floride Color Hardness Ma Fe Alkalindry Ma Fe Alkalindry Ma Coegniants	rategy current low high type adjustment current low	- - 7 7 7 7 7 - 7	7 7 - 7 7 - 7 7 7 - 9 33 33 33 33 34um water doesn't chang	e much
Free CI2 total CI2 turbidity temperature pH Floride Color Hardness Ma Fe Alkalindry Ma Fe Alkalindry Ma Coegniants	rategy current low high type adjustment current low high	- - 7 7 7 7 7 - 7	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	e much
Free CI2 total CI2 turbidity temperature pH Floride Color Hardness Ma Fe Alkalindry Ma Fe Alkalindry Ma Coegniants	rategy current low high type adjustment current low high type	- - 7 7 7 7 7 - 7	7 7 7 7 7 7 7 7 7 7 7 7 7 7 3 3 3 3 3 3	e much
Free CI2 total CI2 turbidity temperature pH Floride Color Hardness Ma Fe Alkalindry Ma Fe Alkalindry Ma Coegniants	rategy current low high type adjustment current low high	- - 7 7 7 7 7 - 7	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	e much
Free CL2 total CL2 turbidity temperature pH Floride Color Hardness Ma Fe Alkahnity Microbial <u>Chemical Dosing and Operating St</u> Cogniants	rategy current low high type adjustment current low high type adjustment	- - 7 7 7 7 7 - 7	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	e much
Free CL2 total CL2 turbidity temperature pH Floride Color Hardness Ma Fe Alkahnity Microbial <u>Chemical Dosing and Operating St</u> Cogniants	rategy current low high type adjustment current low high type adjustment current low	- - 7 7 7 7 7 - 7	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	e much
free CI2 total CI2 turbidaty temperature pH Floride Color Hardness Mn Fe Alkahriny Microbial <u>Chemical Dosing and Operating St</u> Cosgulants Polymer Soda Ash	rategy current low high type adjustment current low high type adjustment low high adjustment	- - 7 7 7 7 7 - 7	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	e much
Free CL2 total CL2 turbidity temperature pH Floride Color Hardness Ma Fe Alkahnity Microbial <u>Chemical Dosing and Operating St</u> Cogniants	rategy current low high type adjustment current low high type adjustment current low high adjustment current	- - 7 7 7 7 7 - 7	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	e much
free CI2 total CI2 turbidaty temperature pH Floride Color Hardness Mn Fe Alkahriny Microbial <u>Chemical Dosing and Operating St</u> Cosgulants Polymer Soda Ash	rategy current low high type adjustment current low high type adjustment current low high adjustment current low	- - 7 7 7 7 7 - 7	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	e much
free CI2 total CI2 turbidaty temperature pH Floride Color Hardness Mn Fe Alkahriny Microbial <u>Chemical Dosing and Operating St</u> Cosgulants Polymer Soda Ash	rentegy current low high type adjustment current low djustment current low high adjustment current low high high high	- - 7 7 7 7 7 - 7	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	e much
free CI2 total CI2 turbidaty temperature pH Floride Color Hardness Mn Fe Alkahriny Microbial <u>Chemical Dosing and Operating St</u> Cosgulants Polymer Soda Ash	rategy current low high type adjustment current low high type adjustment current low high adjustment current low	- - 7 7 7 7 7 - 7	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
free CI2 total CI2 turbidaty temperature pH Floride Color Hardness Mn Fe Alkahriny Microbial <u>Chemical Dosing and Operating St</u> Cosgulants Polymer Soda Ash	rentegy current low high type adjustment current low high type adjustment current low high sdjustment current low high sdjustment current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current curent current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current curent current current current current curent current	- - 7 7 7 7 7 - 7	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
free CI2 total CI2 turbidity temperature pH Floride Color Hardness Mn Fe Alkabridy Microbial <u>Chemical Doging and Operating St</u> Cosgniants Polymer Soda Ash Disinfection	rentegy current low high type adjustment current low high type adjustment current low high adjustment current low high adjustment current low high type adjustment current low	- - 7 7 7 7 7 - 7	7 7 7 7 7 7 7 7 7 7 7 7 7 7	
free CI2 total CI2 turbidity temperature pH Floride Color Hardness Mn Fe Alkabridy Microbial <u>Chemical Doging and Operating St</u> Cosgniants Polymer Soda Ash Disinfection	rentery current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type high type high type high type high high type high type high high	- - 7 7 7 7 7 - 7	7 7 7 7 7 7 7 7 7 7 7 7 7 7	
free CI2 total CI2 turbidity temperature pH Floride Color Hardness Mn Fe Alkabridy Microbial <u>Chemical Doging and Operating St</u> Cosgniants Polymer Soda Ash Disinfection	rentegy current low high type adjustment current low high type adjustment current low high sdjustment current low high type adjustment current low high type adjustment current low high type	- - 7 7 7 7 7 - 7	7 7 7 7 7 7 7 7 7 7 7 7 7 7	
free CL2 total CL2 total CL2 totbibly Emperature pH Floride Color Hardness Mn Fe Alkahniry Microbial <u>Chemical Dosing and Operating St</u> Coggniants Polymer Soda Ash Disinfection T & O control	rentegy current low high type adjustment current low high type adjustment current low high subjustment current low high type adjustment current low high type adjustment current low	- - 7 7 7 7 7 - 7	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
free CI2 total CI2 turbidity temperature pH Floride Color Hardness Mn Fe Alkabridy Microbial <u>Chemical Doging and Operating St</u> Cosgniants Polymer Soda Ash Disinfection	rentegy current low high type adjustment current low high type adjustment current low high sdjustment current low high type adjustment current low high type adjustment current low high type	- - 7 7 7 7 7 - 7	7 7 7 7 7 7 7 7 7 7 7 7 7 7	
free CI2 total CI2 total CI2 total CI2 totals Floride Color Hardness Ma Fe Alkaliniry <u>Microbial</u> <u>Chemical Dosing and Operating SI</u> Coagniants Polymer Soda Ash Disinfection T & O control	rentery current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	- - 7 7 7 7 7 - 7	7 7 7 7 7 7 7 7 7 7 7 7 7 7	
free CI2 total CI2 total CI2 total CI2 totals Floride Color Hardness Ma Fe Alkaliniry <u>Microbial</u> <u>Chemical Dosing and Operating SI</u> Coagniants Polymer Soda Ash Disinfection T & O control	rentegy current low high type adjustment current low high type adjustment current low high sdjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	- - 7 7 7 7 7 - 7	7 7 7 7 7 7 7 7 7 7 7 7 7 7	

			FALHER 16-Jun-94	
Type of Sample		Raw	Treated	Distributed
Temperature	deg C	14.1	15.1	9.3
pH	-	7.35	6.6	6.6
Conductivity	Miro ohma/c	480	530	550
Turbidity	NTU	3.05	0.13	0.16
Total Chlorine	mg/L	NA	1.09	0.59
Free Chlorine	mg/L	NA	0.54	0.13
Calor	TCU	50	10	5
Ammonia			10	3
	mg/L	0.044	1	-
Odour Type		Stand A	chlorine / grassy	-
Odour Intensity	out of 3	1	I	i-
Flavour Profile	out of 10	NA	4	-
Flavour Comment				
THMs	ug/L	-	-	-
Total Coliforms	cfu/100ml	1062	<1	<1
Facal Coliforms	cfu/100ml	11	<1	<1
Heterotropic Plate Count (48 hr)	cfu/l mL	52	14	46
Heterotropic Plate Count (7 days)	cfu/l mL			
Klebniella	cfu/100ml	348	<1	<1
Fecal Streptococcus	cfu/100ml	2	l.	<1
Molds		12	<1	
	cfu/1 mL		1 -	0
Yeast	cfu/1 mL	93	<1	1
Iron Reducing Bacteria	org/1 mL	>110	<0.3	0.4
Sulfate Reducing Bacteria	org/1 mL	9	<0.3	<0.3
Sulfite Reducing Bacteria	org/1 mL	24	<0.3	<0.3
Thiosulfate Reducing Bacteria	org/1 mL	>110	2	>110
			<0.3	
Iron Oxidizing Bacteria	org/1 mL	110	~~~	<0.3
				1
Plant Operations			L	
Person hours to operate plant per v	veek		21	
T & O problems			yes	
ra o prostana			botteled water popul	-
Hardness	high		450	
FLAE CATERS				
	low		175	
Deminal Tilling Deviningh			high in the winter	
Recycel Filter Backwash			ло	
Distribution system flushing progra	en		yes	
Storage	m3	l	1364	
		1		
	m 3		475	
			475 68.9	
Ave. Theoretical Hydraulic Detention			68.9	
Ave. Theoretical Hydraulic Detention		RWR/Aet/C		12/Fh/TWR
Ave. Theoretical Hydraulic Detention		RWR/Act/(68.9	2/Fh/TWR
Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routine		RWR/Aer/C	68.9 ZzA/AC/Clr/pH/Rflt/C	12FWTWR
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free Cl2		RWR/Aer/C	68.9 CgA/AC/Clr/pH/Rflt/C Treated 7	12FW/TWR
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Rotatine free C12 total C12 total C12		RWR/Aet/(68.9 CgA/AC/Clr/pH/Rflt/C Treated 7 7	12/FWTWR
Ave: Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free Cl2 total Cl2 total Cl2 total Cl2		RWR/Act/C	68.9 CzA/AC/Clr/pH/Rflt/C Treated 7 7 7	12/F10/TWR
Ave: Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free Cl2 Iotal Cl2 tutbidky tutbidky		RWR/Ast/C Raw	68.9 <u>CeA/AC/Clr/pH/Rflt/C</u> Treated 7 7 7 7	12Fh/TWR
Ave: Theoretical Hydraulic Detents Treatment Weekly Sampling Routine free C12 total C12 tutbiddy temperature pH		RWR/Act/C	68.9 CgA/AC/Clr/pH/Rft/C Treated 7 7 7 7 7 7 7 7	12Fta/TWR
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free Cl2 total Cl2 total Cl2 turbidity		RWR/Ast/C	68.9 <u>CeA/AC/Clr/pH/Rflt/C</u> Treated 7 7 7 7	12/Fh/TWR
Ave: Theoretical Hydraulic Detents Treatment Weekly Sampling Routine free C12 total C12 tutbiddy temperature pH		RWR/Aet/C	68.9 <u>ZeA/AC/Clr/pH/Rfb/C</u> Treated 7 7 7 7 7 7 7	12F10/TWR
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free Cl2 total Cl2 total Cl2 turbidity temperature pH Floride Color		RWR/Act/C	68.9 CgA/AC/Clr/pH/Rft/C Treated 7 7 7 7 7 7 7 7	12/Fh/TWR
Ave: Theoretical Hydraulic Detents Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness		RWR/Aer/(68.9 <u>24/AC/Clr/pH/Rfk/C</u> Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	12/Fh/TWR
Ave: Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free Cl2 toubid Cl2 toubidty temperature pH Floride Color Hardness Mn		RWR/Aet/C	68.9 Treated 7 7 7 7 7 7 7 7 7 1	12F]v/TWR
Ave: Theoretical Hydraulic Detenti Treatment <u>Weekly Sampling Routine</u> free C12 total C12 turbidity temperature pH Floride Color Hardaess Mn Fe		RWR/Act/C	68.9 <u>24/AC/Clr/pH/Rfk/C</u> Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	12/Ftv/TWR
Ave: Theoretical Hydraulic Detenti Treatment <u>Weekly Sampling Routine</u> free C12 total C12 turbidity temperature pH Floride Color Hardaess Mn Fe		RWR/Aet/C	68.9 Treated 7 7 7 7 7 7 7 7 7 1	12/Ftv/TWR
Ave. Theoretical Hydraulic Detenti Trestment Weekly Sampling Routine free Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Mn Fe Alltalinity	on, hr.	RWR/Act/C	68.9 Treated 7 7 7 7 7 7 7 7 7 1	12/Fh/TWR
Ave: Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alltalinity Microbial	on, hr.	RWR/Act/C	68.9 Treated 7 7 7 7 7 7 7 7 7 1	12/F)u/TWR
Ave: Theoretical Hydraulic Detenti Treatment Weekly Sampling Rontine free C12 total C12 turbidity temperature pH Floride Color Hardases Ma. Fe Altalinity Microbial Chemical Doning and Operating St	per month	RWR/Act/(68.9 22/AC/Clr/pH/R/fk/C 7 7 7 7 7 7 7 7 7 1 1 1 4	12/F)v/TWR
Ave: Theoretical Hydraulic Detenti Treatment Weekly Sampling Rontine free C12 total C12 turbidity temperature pH Floride Color Hardases Ma. Fe Altalinity Microbial Chemical Doning and Operating St	pet month metery current	RWR/Aet/C	68.9 7 Treated 7 7 7 7 7 7 7 7 7 1 1 1 1 1 1 5 00	32/Ftv/TWR
Ave: Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alltalinity Microbial	pet month merey current jow	RWR/Act/C	68.9 <u>CAVAC/Ctr/pH/Rfk/C</u> Treated 7 7 7 7 7 7 7 7 7 7 1 1 1 1 1 1 1 1 1 5 80	12/F)o/TWR
Ave: Theoretical Hydraulic Detenti Treatment Weekly Sampling Rontine free C12 total C12 turbidity temperature pH Floride Color Hardases Ma. Fe Altalinity Microbial Chemical Doning and Operating St	per month micey current low high	RWR/Aet/C	68.9 22/AC/Clr/pH/R.fk/C 7 7 7 7 7 7 7 7 7 7 1 1 1 1 1 1 5 80 220	32/Ftv/TWR
Ave: Theoretical Hydraulic Detenti Treatment Weekly Sampling Rontine free C12 total C12 turbidity temperature pH Floride Color Hardases Ma. Fe Altalinity Microbial Chemical Doning and Operating St	per mouth micry current low high type	RWR/Act/C	68.9 Treated 7 7 7 7 7 7 7 7 7 7 1 1 1 1 - - 1 1 5 80 220 alum	12/F)u/TWR
Ave: Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidky temperature pH Floride Color Hardness Ma Fe Albalinity <u>Microbial</u> <u>Chemical Doning and Operating St</u> Coegulants	per month ratesy current low high type	RWR/Aer/	68.9 22/AC/Clr/pH/Rfk/C Treated 7 7 7 7 7 7 7 7 7 7 7 1 1 1 1 1 5 80 220 alum bassed on turbidity	12/Ftv/TWR
Ave: Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidky temperature pH Floride Color Hardness Ma Fe Albalinity <u>Microbial</u> <u>Chemical Doning and Operating St</u> Coegulants	per mouth micry current low high type	RWR/Act/C	68.9 Treated 7 7 7 7 7 7 7 7 7 7 1 1 1 1 - - 1 1 5 80 220 alum	12/F]u/TWR
Ave: Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidky temperature pH Floride Color Hardness Ma Fe Albalinity <u>Microbial</u> <u>Chemical Doning and Operating St</u> Coegulants	per month ratesy current low high type	RWR/Act/C	68.9 22/AC/Clr/pH/Rfk/C Treated 7 7 7 7 7 7 7 7 7 7 7 1 1 1 1 1 5 80 220 alum bassed on turbidity	12/F)o/TWR
Ave: Theoretical Hydraulic Detenti Treatment Weekly Sampling Rontine free C12 total C12 turbidity temperature pH Floride Color Hardases Ma. Fe Altalinity Microbial Chemical Doning and Operating St	pet month micey current low high current low high current low	RWR/Aet/C	68.9 72A/AC/Chr/pH/R.fk/C 7 7 7 7 7 7 7 7 1 1 1 1 1 1 1 1 5 80 220 alum based on turbidity 0.4	32/F]o/TWR
Ave: Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidky temperature pH Floride Color Hardness Ma Fe Albalinity <u>Microbial</u> <u>Chemical Doning and Operating St</u> Coegulants	per mouth micry current low high current low high type adjustment low	RWR/Act/C	68.9 22/AC/Clr/pH/Rfk/C 7 7 7 7 7 7 7 7 7 7 7 7 7	12/F)o/TWR
Ave: Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidky temperature pH Floride Color Hardness Ma Fe Albalinity <u>Microbial</u> <u>Chemical Doning and Operating St</u> Coegulants	per month micey current low high type adjustment low high type	RWR/Aet/C	68.9 22/AC/Chr/pH/R.fk/C 7 7 7 7 7 7 7 7 7 1 1 1 1 1 1 1 5 80 220 alum based on turbidity 0.4 7 - - - - - - - - - - - - -	32/Ftv/TWR
Ave: Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alltalinity <u>Microbial</u> <u>Chemical Doning and Operating St</u> Cogulants Polymer	per month micey current low high type adjustment current low high type adjustment	RWR/Act/C	68.9 CAVAC/Clr/pH/Rfk/C 7 7 7 7 7 7 7 7 7 7 7 7 7	12/F)u/TWR
Ave: Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidky temperature pH Floride Color Hardness Ma Fe Albalinity <u>Microbial</u> <u>Chemical Doning and Operating St</u> Coegulants	per month micesy current low high current low high type adjustment current low high type adjustment	RWR/Act/C	68.9 22/AC/Chr/pH/R.fk/C 7 7 7 7 7 7 7 7 7 1 1 1 1 1 1 1 5 80 220 alum based on turbidity 0.4 7 - - - - - - - - - - - - -	12/Ftv/TWR
Ave: Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alltalinity <u>Microbial</u> <u>Chemical Doning and Operating St</u> Cogulants Polymer	per month micey current low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low	RWR/Act/C	68.9 CAVAC/Clr/pH/Rfk/C 7 7 7 7 7 7 7 7 7 7 7 7 7	12/F]v/TWR
Ave: Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alltalinity <u>Microbial</u> <u>Chemical Doning and Operating St</u> Cogulants Polymer	pet month meesy current iow high type adjustment current low high type adjustment current low high type adjustment current low	RWR/Act/C	68.9 CAVAC/Clr/pH/Rfk/C Trested 7 7 7 7 7 7 7 7 7 7 7 7 7	12/F)o/TWR
Ave: Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alltalinity <u>Microbial</u> <u>Chemical Doning and Operating St</u> Cogulants Polymer	per month micey current low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low	RWR/Act/C	68.9 CAVAC/Clr/pH/Rfk/C 7 7 7 7 7 7 7 7 7 7 7 7 7	32/F]o/TWR
Ave: Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbiddy temperature pH Floride Color Hardness Min Fe Altatinity Microbial Chemical Doning and Operating St Congulants Polymer Soda Ash	pet month meesy current iow high type adjustment current low high type adjustment current low high type adjustment current low	RWR/Act/C	68.9 22/AC/Clr/pH/Rfk/C 7 7 7 7 7 7 7 7 7 7 7 7 7	12/F)v/TWR
Ave: Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alltalinity <u>Microbial</u> <u>Chemical Doning and Operating St</u> Cogulants Polymer	per month micey current low high type adjustment low high type adjustment current low high type adjustment current low	RWR/Aet/C	68.9 72A/AC/Chr/pH/R.fk/C 7 7 7 7 7 7 7 7 7 7 1 1 1 1 1 1 1 1 1 1 1 1 1	32/F]o/TWR
Ave: Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbiddy temperature pH Floride Color Hardness Min Fe Altatinity Microbial Chemical Doning and Operating St Congulants Polymer Soda Ash	per month messy current low high type adjustment low high type adjustment current low high type adjustment current low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high high type low high high type low high high type low high high high high high high high hig	RWR/Act/C	68.9 CAVAC/Clar/pH/Rfk/C Treated 7 7 7 7 7 7 7 7 7 7 1 1 1 1 1 1 1 1 1	12/F)u/TWR
Ave: Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbiddy temperature pH Floride Color Hardness Min Fe Altatinity Microbial Chemical Doning and Operating St Congulants Polymer Soda Ash	per month merecy current low high type adjustment current low high type adjustment current low high adjustment current low high bigh bigh bigh bigh	RWR/Aet/(68.9 22/AC/Clr/pH/Rfk/C 7 7 7 7 7 7 7 7 7 7 7 1 1 1 5 80 220 alum based on turbidity 0.4 7 - - - - - - - - - - - - -	32/Fb/TWR
Ave: Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbiddy temperature pH Floride Color Hardness Min Fe Altatinity Microbial Chemical Doning and Operating St Congulants Polymer Soda Ash	per month micey current low high type adjustment current low high sdjustment current low high adjustment current low high high sdjustment current low high high type sdjustment current low high high type type sdjustment current low high high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low	RWR/Act/C	68.9 22/AC/Clr/pH/Rfk/C 7 7 7 7 7 7 7 7 7 7 7 7 7	12/F]u/TWR
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 teanpersume pH Floride Color Hardness Ma Arabinity Microbial Chemical Doning and Operating St Coegulants Polymer Soda Ash	per month merecy current low high type adjustment current low high type adjustment current low high adjustment current low high bigh bigh bigh bigh	RWR/Act/C	68.9 22/AC/Clr/pH/Rfk/C 7 7 7 7 7 7 7 7 7 7 7 1 1 1 5 80 220 alum based on turbidity 0.4 7 - - - - - - - - - - - - -	32/Fb/TWR
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbiddey temperature pH Floride Color Hardness Ma Fe Alluslinity Microbial Chemical Doning and Operating St Coegulants Polymer Soda Anh Disinfection	per month mercy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	RWR/Act/C	68.9 22/AC/Clr/pH/Rfk/C 7 7 7 7 7 7 7 7 7 7 7 7 7	12/F]v/TWR
Ave: Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbiddy temperature pH Floride Color Hardness Min Fe Altatinity Microbial Chemical Doning and Operating St Congulants Polymer Soda Ash	per month markey current low high type adjustment current low high sdjustment current low high sdjustment current low high adjustment current low high adjustment current low	RWR/Act/C	68.9 24/AC/Clr/pH/Rfk/C 7 7 7 7 7 7 7 7 7 7 7 7 7	32/F]o/TWR
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbiddey temperature pH Floride Color Hardness Ma Fe Alluslinity Microbial Chemical Doning and Operating St Coegulants Polymer Soda Anh Disinfection	per mouth mesey current low high type adjustment current low high adjustment current low high adjustment current low high type adjustment current low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low low high low low high low low high low low high low low low low low low low low	RWR/Act/C	68.9 24/AC/Clr/pH/Rfk/C 7 7 7 7 7 7 7 7 7 7 7 7 7	12/F]u/TWR
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 travitiday temperature pH Floride Color Hardness Ma Fe Alkalinity <u>Microbial</u> Chemical Doning and Operating St Congulants Polymer Soda Ash Disinfection	per mouth meresy current low high type adjustment current low high adjustment current low high adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type	RWR/Act/C	68.9 22/AC/Clr/pH/Rfk/C 7 7 7 7 7 7 7 7 7 7 7 7 7	12/FIv/TWR
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 travitiday temperature pH Floride Color Hardness Ma Fe Alkalinity <u>Microbial</u> Chemical Doning and Operating St Congulants Polymer Soda Ash Disinfection	per monuh mesey current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type type adjustment current low high type adjustment current low high type type type adjustment current low high type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type	RWR/Act/C	68.9 22/AC/Clr/pH/Rfk/C 7 7 7 7 7 7 7 7 7 7 7 7 7	32/F]o/TWR
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbiddey temperature pH Floride Color Hardness Ma Fe Alluslinity Microbial Chemical Doning and Operating St Coegulants Polymer Soda Anh Disinfection	per mouth meresy current low high type adjustment current low high adjustment current low high adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type	RWR/Act/C	68.9 22/AC/Clr/pH/Rfk/C 7 7 7 7 7 7 7 7 7 7 7 7 7	12/F]o/TWR
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 travitiday temperature pH Floride Color Hardness Ma Fe Alkalinity <u>Microbial</u> Chemical Doning and Operating St Congulants Polymer Soda Ash Disinfection	per monuh mesey current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type type adjustment current low high type adjustment current low high type type type adjustment current low high type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type	RWR/Act/C	68.9 22/AC/Clr/pH/Rfk/C 7 7 7 7 7 7 7 7 7 7 7 7 7	32/F]o/TWR
Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routine free C12 total C12 turbiddey temperature pH Floride Color Hardness Min Fe Albalinity Microbial Chemical Doning and Operating St Cogulants Polymer Soda Ash Disinfection F & O control	per mouth mercy current low high type adjustment current low high type adjustment current low high diustment current low high current low high type adjustment current low high type adjustment current low high type adjustment current low high current low high current low high current low high current low high current low high current low high current low high current low high current low high current low high current low high current low high current low high current low high current current low high current current low high current current current current low high current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current	RWR/Act/C	68.9 22/AC/Clr/pH/Rfk/C Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	12/F]u/TWR
Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routine free C12 total C12 turbiddey temperature pH Floride Color Hardness Min Fe Albalinity Microbial Chemical Doning and Operating St Cogulants Polymer Soda Ash Disinfection F & O control	pet month micey current low high type adjustment current low high sdjustment current low high adjustment current low high adjustment current low high sdjustment current low high low high adjustment current low high low high low high ow high adjustment current low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low low high low low high low low high low low high low low high low low high low low high low low high low low low low low low low low	RWR/Aer/	68.9 CAVAC/Clar/pH/R.fk/C Treated 7 7 7 7 7 7 7 7 1 1 1 4 - 4 - 165 80 220 alum based on turbidity 0.4 7 - - Aqua floc 6465 constant 22.3 - - - - based on pH 6.41 ? ? Cl2 gas based on renidual 3.3 - - PAC constant 1 1 - - - - - - - - - - - - -	32/Fb/TWR
Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routine free C12 total C12 turbiddey temperature pH Floride Color Hardness Min Fe Albalinity Microbial Chemical Doning and Operating St Cogulants Polymer Soda Ash Disinfection F & O control	per month messy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type type adjustment current low high type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type	RWR/Act/C	68.9 CAVAC/Clr/pH/Rfk/C Treated 7 7 7 7 7 7 7 7 7 7 7 7 7 7 1 1 1 1 1	12/F]u/TWR
Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routine free C12 total C12 turbiddey temperature pH Floride Color Hardness Min Fe Albalinity Microbial Chemical Doning and Operating St Cogulants Polymer Soda Ash Disinfection F & O control	pet month micey current low high type adjustment current low high sdjustment current low high adjustment current low high adjustment current low high sdjustment current low high low high adjustment current low high low high low high ow high adjustment current low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low low high low low high low low high low low high low low high low low high low low high low low high low low low low low low low low	RWR/Act/	68.9 CAVAC/Clar/pH/R.fk/C Treated 7 7 7 7 7 7 7 7 1 1 1 4 - 4 - 165 80 220 alum based on turbidity 0.4 7 - - Aqua floc 6465 constant 22.3 - - - - based on pH 6.41 ? ? Cl2 gas based on renidual 3.3 - - PAC constant 1 1 - - - - - - - - - - - - -	32/Fb/TWR

			FORT CHIPEWYA) 31-Ang-94	4
Type of Sample		Raw	Treated	Distributed
Temperature	deg C	15.7	16.7	15.9
pH	0	7.8	7.4	7.4
Conductivity	Miro ohms/c	160	210	220
Turbidity	NTU			
		5.2	0.11	0.09
Total Chlorine	mg/L	-	0.93	0.95
Free Chlorine	mg/L	-	0.74	0.78
Color	TCU	10	<0	<0
Ammonza	mg/L	0.008		0.004
Odour Type		none	chlorine	0.000
	and of 7	0		-
Odour Intensity	out of 3		0.5	•
Flavour Profile	out of 10	NA	7	7
Flavour Comment				
THMs	ug/L	-	65	85
		_		
Total Coliforms	cfu/100ml	3	<1	<1
Fecal Coliforms	cfu/100ml	<1	<1	<1
Heterotropic Plate Count (48 hr)	cfu/1 mL	161	<1	0
Heterotropic Plate Count (7 days)	cfu/1 mL	320	0	1
Klebniella	cfu/100ml	<1	<1	<1
Fecal Streptococcus	cfu/100ml	4	<1	<1
Molds	cfu/1 mL	4	0	<1
Yeast	cfu/1 mL	83	<1	<1
Iron Reducing Bacteria	org/1 mL	46	< 0.3	<0.3
Sulfate Reducing Bacteria	org/1 mL	2	<0.3	<0.3
Sulfite Reducing Bacteria	org/1 mL	24	<0.3	<0.3
Thiosulfate Reducing Bacteria	org/1 mL	>110	<0.3	<0_3
Iron Oxidizing Bacteria	org/1 mL	110	<0.3	<0.3
Plant Operations				
Person hours to operate plant per v	week		17	
T & O problems			yes	
-			due to pond turnove	T
Hardness	high			
	low		-	
Recycel Filter Backwash			Yes	
			to new water resivou	I
Distribution system flushing progra	2000		yes	
			once per year	
Storage	m3	1	865	
Average Daily Production	m3	1	905	
Ave. Theoretical Hydraulic Detenti			905 22.9	
Ave. Theoretical Hydraulic Detenti				
Ave. Theoretical Hydraulic Detenti Treatment		Par	22.9	
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine		Raw	22.9 Treated	
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free Cl2		Raw	22.9	
Ave. Theoretical Hydrsulic Detenti Treatment. Weekly Sampling Routine free Cl2 total Cl2			22.9 Treated 7	
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routing free Cl2		7	22.9 Treated 7 7	
Ave. Theoretical Hydraulic Determi Treatment Weekly <u>Sampling Routine</u> free Cl2 total Cl2 parbidity temperature			22.9 Treated 7	
Ave. Theoretical Hydraulic Determi Treatment Weekly <u>Sampling Routine</u> free Cl2 total Cl2 parbidity temperature		7	22.9 Treated 7 7	
Ave. Theoretical Hydraulic Determi Treatment. Weekly Sampling Routine free C12 cotal C12 zambidity zemperature pH		7 7	22.9 Treated 7 7 7 7	
Ave. Theoretical Hydraulic Determi Treatment Weekly Sampling Routine free C12 total C12 methodity temperature pH Floride		7 7	22.9 Treated 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 free C12 trought C12 transition compensatione performer performer color		7 7	22.9 Treated 7 7 7 7	
Ave. Theoretical Hydraulic Determi Treatment. Weekly Sampling Routine free C12 cotal C12 tarbidity izmpenture pet Floride Color Hardness		7 7	22.9 Treated 7 7 7 7	
Ave. Theoretical Hydraulic Determi Treatment. Weekly Sampling Routine free C12 cotal C12 tarbidity izmpenture pet Floride Color Hardness		7 7	22.9 Treated 7 7 7 7	
Ave. Theoretical Hydraulic Determi Treatment Weekly Sampling Routine free C12 total C12 marbidity temperature pH Floride		7 7	22.9 Treated 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling, Routing free C12 cotal C12 tamperature perf Floride Color Hardness Ma Fe		7 7	22.9 Treated 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling, Routing free C12 cotal C12 tamperature perf Floride Color Hardness Ma Fe		7 7	22.9 Treated 7 7 7 7	
Ave. Theoretical Hydraulic Determi Treatment Weekly Sampling Routine free Cl2 total Cl2 barbidity emperature pH Floride Color Hardness Ma Fe Albalimity	on, hr.	7 7	22.9 Treated 7 7 7 7	
Ave. Theoretical Hydraulic Determi Treatment. Weekly Sampling Routine free Cl2 cotal Cl2 tambédity zempenture pét Floride Color Hardaness Ma Fe Atlashinity Microbial Chemical Doeing and Operating St	per month	7 7	22.9 Treated 7 7 7 7 7 7 	
Ave. Theoretical Hydraulic Determi Treatment Weekly Sampling Routine free C12 total C12 arrbidity compensatione pH Floride Cloride Color Hardness Ma	on, hr.	7 7	22.9 Treated 7 7 7 7	
Ave. Theoretical Hydraulic Determi Treatment. Weekly Sampling Routine free Cl2 cotal Cl2 tambédity zempenture pét Floride Color Hardaness Ma Fe Atlashinity Microbial Chemical Doeing and Operating St	per month	7 7	22.9 Treated 7 7 7 7 7 7 	
Ave. Theoretical Hydraulic Determi Treatment. Weekly Sampling Routine free Cl2 cotal Cl2 tambédity zempenture pét Floride Color Hardaness Ma Fe Atlashinity Microbial Chemical Doeing and Operating St	per month rategy current low	7 7	22.9 Treated 7 7 7 7 7 - - - - - - - - - - - - -	
Ave. Theoretical Hydraulic Determi Treatment. Weekly Sampling Routine free Cl2 cotal Cl2 tambédity zempenture pét Floride Color Hardaness Ma Fe Altakinity Microbial Chemical Doeing and Operating St	per month mersy current low high	7 7	22.9 Treated 7 7 7 7 - - - - - - - - - - - - -	
Ave. Theoretical Hydraulic Determi Treatment. Weekly Sampling Routine free Cl2 cotal Cl2 tambédity zempenture pét Floride Color Hardaness Ma Fe Altakinity Microbial Chemical Doeing and Operating St	per month metery current low high type	7 7	22.9 Treated 7 7 7 7 - - - - - 40 30 50 alumn	
Ave. Theoretical Hydraulic Detenti <u>Prestment</u> <u>Weekly Sampling Routine</u> free Cl2 cotal Cl2 tarbidity temperature pet Floride Color Hardness Mn Sre Alkalimity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Cogguients	per month metery current low high type signstruent	7 7	22.9 Treated 7 7 7 7 7 7 - - - - - - - - - - - - -	
Ave. Theoretical Hydraulic Detenti <u>Prestment</u> <u>Weekly Sampling Routine</u> free Cl2 cotal Cl2 tarbidity temperature pet Floride Color Hardness Mn Sre Alkalimity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Cogguients	per month matexy current low high type adjustment current	7 7	22.9 Treated 7 7 7 7 - - - - - 40 30 50 alumn	
Ave. Theoretical Hydraulic Determi Treatment. Weekly Sampling Routine free Cl2 cotal Cl2 tambédity zempenture pét Floride Color Hardaness Ma Fe Altakinity Microbial Chemical Doeing and Operating St	per month metery current low high type signstruent	7 7	22.9 Treated 7 7 7 7 7 7 - - - - - - - - - - - - -	
Ave. Theoretical Hydraulic Detenti <u>Prestment</u> <u>Weekly Sampling Routine</u> free Cl2 cotal Cl2 tarbidity temperature pet Floride Color Hardness Mn Sre Alkalimity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Cogguients	per month metery current low high current low bigh current low	7 7	22.9 Treated 7 7 7 7 7 7 - - - - - - - - - - - - -	
Ave. Theoretical Hydraulic Detenti <u>Prestment</u> <u>Weekly Sampling Routine</u> free Cl2 cotal Cl2 tarbidity temperature pet Floride Color Hardness Mn Sre Alkalimity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Cogguients	per month ratesy current low high type sdjustment current low high	7 7	22.9 Treated 7 7 7 7 7 7 - - - - - - - - - - - - -	
Ave. Theoretical Hydraulic Detenti <u>Prestment</u> <u>Weekly Sampling Routine</u> free Cl2 cotal Cl2 tarbidity temperature pet Floride Color Hardness Mn Sre Alkalimity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Cogguients	per month matexy current low high type sdjustment current low high type	7 7	22.9 Treated 7 - 7 7 7 7 - - - - - - - - - - - - -	
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routing free C12 cotal C12 tamperature pH Floride Color Hardness Ma Fe Alkalinity Microbial Chemical Dosing and Operating St Cogulants Polymer	per mosth rategy current low high type adjustment current low high type adjustment	7 7	22.9 Treated 7 7 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti <u>Prestment</u> <u>Weekly Sampling Routine</u> free Cl2 cotal Cl2 tarbidity temperature pet Floride Color Hardness Mn Sre Alkalimity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Cogguients	per month ratesy current low high type sdjustment current low high type sdjustment current	7 7	22.9 Treated 7 7 7 7 7 7 - - - - - - - - - - - - -	
Ave. Theoretical Hydraulic Detenti Prestment Weekly Sampling Routine free C12 colal C12 urbidity compensature off Floride Color Hardness Van Fe Allsalinity Microbial Chemical Dosing and Operating St Coagulants Polymer	per month matexy current low high type sdjustment current low high type sdjustment current low	7 7	22.9 Treated 7 - 7 7 7 7 - - - - - - - - - - - - -	
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routing free C12 cotal C12 tamperature pH Floride Color Hardness Ma Fe Alkalinity Microbial Chemical Dosing and Operating St Cogulants Polymer	per month metery current low high type sdjustment current low high type sdjustment current low high type bigh	7 7	22.9 Treated 7 7 7 7 7 7 - - - - - - - - - - - - -	
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routing free C12 cotal C12 tamperature pH Floride Color Hardness Ma Fe Alkalinity Microbial Chemical Dosing and Operating St Cogulants Polymer	per month matexy current low high type sdjustment current low high type sdjustment current low	7 7	22.9 Treated 7 7 7 7 7 - - - - - - - - - - - - -	
Ave. Theoretical Hydraulic Detenti Prestment Weekly Sampling Routine free Cl2 otal Cl2 sampling Routine free Cl2 otal Cl2 sampling Routine Color (iardness Vin Floride Color (iardness Vin Fre Alkalimity Vicrobial Chemical Doeing and Operating St Coagulants Polymer Soda Ash	per month metery current low high type sdjustment current low high type sdjustment current low high type bigh	7 7	22.9 Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Prestment Weekly Sampling Routine free Cl2 otal Cl2 sampling Routine free Cl2 otal Cl2 sampling Routine Color (iardness Vin Floride Color (iardness Vin Fre Alkalimity Vicrobial Chemical Doeing and Operating St Coagulants Polymer Soda Ash	per month ratesy current low high type adjustment current low high adjustment current low high adjustment current low	7 7	22.9 Treated 7 - 7 7 7 7 - - - - - - - - - - - - -	
Ave. Theoretical Hydraulic Detenti Prestment Weekly Sampling Routine free Cl2 otal Cl2 sampling Routine free Cl2 otal Cl2 sampling Routine Color (iardness Vin Floride Color (iardness Vin Fre Alkalimity Vicrobial Chemical Doeing and Operating St Coagulants Polymer Soda Ash	per month metery current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low	7 7	22.9 Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Prestment Weekly Sampling Routine free Cl2 otal Cl2 sampling Routine free Cl2 otal Cl2 sampling Routine Color (iardness Vin Floride Color (iardness Vin Fre Alkalimity Vicrobial Chemical Doeing and Operating St Coagulants Polymer Soda Ash	per month metery current low high type adjustment current low bigh type adjustment current low high type adjustment current low high high high high type adjustment current low high high high high high high high hig	7 7	22.9 Treated 7 - 7 7 7 7 - - - - - - - - - - - - -	
Ave. Theoretical Hydraulic Detenti Prestment Weekly Sampling Routine free Cl2 otal Cl2 sampling Routine free Cl2 otal Cl2 sampling Routine Color (iardness Vin Floride Color (iardness Vin Fre Alkalimity Vicrobial Chemical Doeing and Operating St Coagulants Polymer Soda Ash	per month recey current low high type adjustment current low high type adjustment current low high type adjustment current low high type bigh adjustment current low high type type adjustment current low high type type adjustment current low high type type adjustment current low high type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type	7 7	22.9 Treated 7 - 7 7 7 - - - - - - - - - - - - -	
Ave. Theoretical Hydraulic Detenti Treatment Weekky Sampling Routine free Cl2 total Cl2 tarabidity temperature pet Floride Color Kiardness Mn Fe Alkalimity Microbial Chemical Doeing and Operating St Coagulants Polymer Soda Ash	per month metery current low high type adjustment current low bigh type adjustment current low high type adjustment current low high high high high type adjustment current low high high high high high high high hig	7 7	22.9 Treated 7 7 7 7 7 - - - - - - - - - - - - -	
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 temperature pel Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Doeing and Operating St Cosgulants Polymer Soda Ash Disiafection	per month rescay current low high type adjustment current low bigh type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type low high type low high type low high type low high type low high type low high high type low high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high	7 7	22.9 Treated 7 - 7 7 7 - - - - - - - - - - - - -	
Ave. Theoretical Hydraulic Detenti Preatment Weekly Sampling Routine free Cl2 otal Cl2 arrbidity compensature off Floride Color Hardness Vin Fre Alltalimity Microbial Chemical Doeing and Operating St Congulants Polymer Soda Ash Disiafection	per month metery current low high type adjustment current low bigh type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current curent curent current curent current current cu	7 7 7	22.9 Treated 7 7 7 7 7 - - - - - - - - - - - - -	
Ave. Theoretical Hydraulic Detenti Preatment Weekly Sampling Routine free Cl2 otal Cl2 arrbidity compensature off Floride Color Hardness Vin Fre Alltalimity Microbial Chemical Doeing and Operating St Congulants Polymer Soda Ash Disiafection	per mosth meczy current low high type sdjustment current low high adjustment current low high adjustment current low high bigh adjustment current low high bigh adjustment current low high bigh adjustment current low high bigh adjustment current low high bigh adjustment current low bigh adjustment current low bigh bigh adjustment current low bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bi	7 7 7	22.9 Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment Weekky Sampling Routine free Cl2 total Cl2 tarabidity temperature pet Floride Color Kiardness Mn Fe Alkalimity Microbial Chemical Doeing and Operating St Coagulants Polymer Soda Ash	per month metery current low high type adjustment current low bigh type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high bigh adjustment current low high bigh adjustment current low high bigh adjustment current low high bigh adjustment current low high bigh adjustment current low high bigh adjustment current low high bigh adjustment current low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high high low high high high high high high high high high high high high high high high high high high high high high high high	7 7 7	22.9 Treated 7 7 7 7 7 - - - - - - - - - - - - -	
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 temperature pel Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Doeing and Operating St Cosgulants Polymer Soda Ash Disiafection	per mosth meczy current low high type sdjustment current low high adjustment current low high adjustment current low high bigh adjustment current low high bigh adjustment current low high bigh adjustment current low high bigh adjustment current low high bigh adjustment current low bigh adjustment current low bigh bigh adjustment current low bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bi	7 7 7	22.9 Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 temperature pel Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Doeing and Operating St Cosgulants Polymer Soda Ash Disiafection	per month metery current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type type adjustment current low high type type type adjustment current low high type type type type type type type type	7 7 7	22.9 Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Prestment Weekly Sampling Routine free C12 colal C12 urbidity compensature pH Floride Color -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -tardness -re -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness	per mosth messy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	7 7 7	22.9 Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Prestment Weekly Sampling Routine free C12 colal C12 urbidity compensature pH Floride Color -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -tardness -re -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness	per month meters per month meters current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type low low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high high low high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high h	7 7 7	22.9 Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Prestment Weekly Sampling Routine free C12 colal C12 urbidity compensature pH Floride Color -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -tardness -re -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness	per month merer per month merer current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	7 7 7	22.9 Treated 7 7 7 7 7 7 - - - - - - - - - - - - -	
Ave. Theoretical Hydraulic Detenti Prestment Weekly Sampling Routine free C12 colal C12 urbidity compensature pH Floride Color -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness Mn -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -re -tardness -tardness -re -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness -tardness	per mosth metery current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment type sdjustment type sdjustment type sdjustment type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type	7 7 7	22.9 Treated 7 7 7 7 7 7 - - - - - - - - - - - - -	
Ave. Theoretical Hydraulic Detenti Preatment Weekly Sampling Routine free Cl2 otal Cl2 arrbidity compensature off Floride Color Hardness Vin Fre Alltalimity Microbial Chemical Doeing and Operating St Congulants Polymer Soda Ash Disiafection	per month merer per month merer current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	7 7 7	22.9 Treated 7 7 7 7 7 7 - - - - - - - - - - - - -	

6

· · · · · · · · · · · · · · · · · · ·			FORT MACKAY 30-Ang-94	
Type of Sample		Raw	Treated	Distributed
Temperature	deg C	17.4	18.4	13.8
рН	0-	8.3	7.3	7.2
Conductivity	Miro ohms/c	220	300	300
Turbidity	NTU	0.81	0.35	
		0.81		0.37
Total Chlorine	mg/L	•	0.57	0.39
Free Chlorine	mg/L	-	0.25	0.02
Color	TCU	10	<0	\triangleleft
Ammonia	mg/L	0.009		0.001
Odour Type		pine	chlorine	chlorine + ??
				1
Odour Intensity	out of 3	0.1	0.5	1
Flavour Profile	out of 10	NA.	7	5
Flavour Comment				
THMs	ug/L	-	301	317
Total Coliforms	cfu/100mI	1	<1	<1
Fecal Coliforms	cfu/100ml	1	<1	<1
Heterotropic Plate Count (48 hr)	cfu/1 mL	37	<1	<1
		-	-	
Heterotropic Plate Count (7 days)		16	<1	<1
Klebniella	cfu/100ml	<1	<1	<1
Fecal Streptococcus	cfu/100ml	1	<1	<1
Molds	cfu/1 mL	1	1	<1
Yeast	cfu/1 mL	18	<1	<1
Iron Reducing Bacteria	org/1 mL	>110	<0.3	<0.3
Sulfate Reducing Bacteria	org/1 mL	24	2	<0.3
		-		
Sulfite Reducing Bacteria	org/1 mL	>110	4	<0.3
Thiosulfate Reducing Bacteria	org/1 mL	>110	>110	>110
Iron Oxidizing Bacteria	org/1 mL	>110	<0.3	9
Best Chambons		ļ	L	l
Plant Operations Person hours to operate plant per v	week		56	
		ł	-	
T&O problems			no	
Hardness	high		_	
	low			
Recycel Filter Backwash			no	
Distribution system flushing progr	BIT1.		yes	
Diaman .				
Storage	m3		727	
Average Daily Production	m3		200	
	m3			
Average Daily Production Ave. Theoretical Hydraulic Detenti	m3	PUD/0-	200 87.3	റിന്നും
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment	m3	RWR/Cs	200 87.3 A/Flc/Chr/pH/Rfli/Ns	OCI/TWR
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine	m3		200 87.3 A/Flc/Ch/pH/Rfl/Ns Treated	OCI/TWR
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free Cl2	m3		200 87.3 A/Flc/Chr/pH/Rfti/Ns Treated 7	ocutwr
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free Cl2 total Cl2	m3	Raw	200 87.3 A/FLC/Chr/pH/Rfli/Ns Treated 7 7	ocutwr
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment <u>Weekly Sampling Routine</u> free C12 total C12 turbidity	m3		200 87.3 A/Flc/Chr/pH/Rfti/Ns Treated 7	OCI/TWR
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature	m3	Raw	200 87.3 A/FLe/Chr/pH/Rfti/Nas Treated 7 7 7 -	ocitwr
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature	m3	Raw	200 87.3 A/FLC/Chr/pH/Rfli/Ns Treated 7 7	OCUTWR
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 turbidky temperature pH	m3	Raw 7	200 87.3 A/FLe/Chr/pH/Rfti/Nas Treated 7 7 7 -	OCUTWR
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride	m3	Raw 7	200 87.3 A/FL/Chr/pH/Rfti/Na Treated 7 7 7 - 7 - 7	oclytwr
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routing free C12 total C12 total C12 temperature pH Floride Color	m3	Raw 7 7	200 87.3 A/FLe/Chr/pH/Rfti/Nas Treated 7 7 7 -	ocutwr
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 turbdky temperature pH Floride Color Hardness	m3	Raw 7 7	200 87.3 A/FL/Chr/pH/Rfti/Na Treated 7 7 7 - 7 - 7	ocutwr
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn	m3	Raw 7 7 7	200 87.3 Treated 7 7 7 - 7 7 - 7 7 - 7 7 -	ocutwr
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routing free C12 total C12 total C12 total C12 temperature pH Floride Color Hardness Mn Fe	m3	Raw 7 7	200 87.3 A/FL/Chr/pH/Rfti/Na Treated 7 7 7 - 7 - 7	ocutwr
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn	m3	Raw 7 7 7	200 87.3 Treated 7 7 7 - 7 7 - 7 7 - 7 7 -	ocutwr
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidity lemperature pH Elocide Color Hardness Ma Fe Alkalimity	m3 	Raw 7 7 7	200 87.3 Treated 7 7 7 - 7 7 - 7 7 - 7 7 -	oci/twr
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free Cl2 turbidky temperature pH Floride Color Hardness Mn. Fe Alkalinity Microbial Chemical Dosing and Operating St	m3 on, hr.	Raw 7 7 7	200 87.3 A/Flc/Chr/pH/Rfl/Ms Treated. 7 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 -	OCUTWR
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidky temperature pH Floride Color Hardness Ma. Fe Alkalinity Microbial Chemical Dosing and Operating St	m3 on, hr.	Raw 7 7 7	200 87.3 Treated 7 7 7 - 7 7 - 7 7 - 7 7 -	OCUTWR
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidky temperature pH Floride Color Hardness Ma. Fe Alkalinity Microbial Chemical Dosing and Operating St	m3 on, hr.	Raw 7 7 7	200 87.3 A/Flc/Chr/pH/Rfl/Ms Treated. 7 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 -	OCI/TWR
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidky temperature pH Floride Color Hardness Ma. Fe Alkalinity Microbial Chemical Dosing and Operating St	m3 on, hr. per month micgy current Jow	Raw 7 7 7	200 87.3 A/FL/Chr/pH/R/fl/Na Treated 7 7 - - 7 7 - - 7 7 - - 7 7 - - 7 7 -	<u>oci/twr</u>
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidky temperature pH Floride Color Hardness Ma. Fe Alkalinity Microbial Chemical Dosing and Operating St	m3 ca, hr. per month micey current low high	Raw 7 7 7	200 87.3 A/Flc/Chr/pH/Rfls/Nas Treated 7 7 7 - 7 7 - 7 7 - 7 7 - 7 7 - 7 7 - 7 7 - 6 4 8 100	OC/TWR
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidky temperature pH Floride Color Hardness Ma. Fe Alkalinity Microbial Chemical Dosing and Operating St	m3 on, hr. per month rategy current low high type	Raw 7 7 7	200 87.3 A/Flc/Chr/pH/R/fls/Nas 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routing free Cl2 total Cl2 turbdity temperature pH Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Dosing and Operating St Cogniants	m3 cm, hr. per month micgy current low high type adjustment	Raw 7 7 7	200 87.3 A/Flc/Chr/pH/Rfls/Nas Treated 7 7 7 - 7 7 - 7 7 - 7 7 - 7 7 - 7 7 - 7 7 - 6 4 8 100	
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weely V Sampling Routing free Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Dosing and Operating St Cognients	m3 on, hr. per month micey current low high type adjustment current	Raw 7 7 7	200 87.3 A/Flc/Chr/pH/R/fls/Nas 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weely V Sampling Routing free Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Dosing and Operating St Cognients	m3 on, hr. per month mleav current low high type adjustment current low	Raw 7 7 7	200 87.3 A/Flc/Chr/pH/R/fls/Nas 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weely V Sampling Routing free Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Dosing and Operating St Cognients	m3 on, hr. per month meny current loren high type adjustment current loren high	Raw 7 7 7	200 87.3 A/Flc/Chr/pH/R/fls/Nas 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidky temperature pH Floride Color Hardness Ma. Fe Alkalinity Microbial Chemical Dosing and Operating St	m3 on, hr. per month rategy current low high type adjustment current low high type	Raw 7 7 7	200 87.3 A/Flc/Chr/pH/R/fls/Nas 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weely V Sampling Routing free Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Dosing and Operating St Cognients	m3 on, hr. per month meny current loren high type adjustment current loren high	Raw 7 7 7	200 87.3 A/Flc/Chr/pH/R/fls/Nas 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weely V Sampling Routing free Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Dosing and Operating St Cognients	m3 on, hr. per month rategy current low high type adjustment current low high type	Raw 7 7 7	200 87.3 Treated 7 7 7 - - 7 7 - - 7 7 - - 7 7 - - 7 7 - - 7 7 - - 7 7 - - 7 7 - - 7 7 - - 7 7 - - 7 7 - - 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Woekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Doxing and Operating St Coggulants	m3 on, hr. per month <u>milegy</u> current low high type adjustment current low high type	Raw 7 7 7	200 87.3 A/FL/Chr/pH/R.fls/Nas 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Woekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Doxing and Operating St Coggulants	m3 on, hr. per month ratesy current low high type adjustment current low high type adjustment current low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low highthent low high low high low highthent low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high high low high high low high low high high low high low high high low high high high high high high high hig	Raw 7 7 7	200 87.3 A/FL/Chr/pH/R.fls/Nas 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Woekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Doxing and Operating St Coggulants	m3 on, hr. per month <u>milesy</u> current low high type adjustment current low high type adjustment current low high type	Raw 7 7 7	200 87.3 A/FL/Ch/M/R/fl/Ns 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment. Weekly Sampling Routine free Cl2 total Cl2 turbidky temperature pH Floride Color Hardness Ma Fe Alkabinity Microbial Cosgulants Polymer Soda Ash	m3 cm, hr. per month mtegy current low high type adjustment current low high type adjustment high type adjustment high type adjustment	Raw 7 7 7	200 87.3 A/Flc/Ch/pH/Rfu/Na 7 7 7 - 7 7 - 7 7 - 7 7 - 7 7 - 7 7 - 7 7 - 7 7 - 7 7 - 7 7 - 7 7 - - 7 7 - - 7 7 - - 7 7 - - - 7 7 7 - - 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment. Weekly Sampling Routine free Cl2 total Cl2 turbidky temperature pH Floride Color Hardness Ma Fe Alkabinity Microbial Cosgulants Polymer Soda Ash	m3 on, hr. per month <u>ratesy</u> current low high type adjustment current low high type adjustment current low high adjustment current low high current current low	Raw 7 7 7	200 87.3 A/FL/Ch/M/R/fl/Ns 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Woekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Doxing and Operating St Coggulants	m3 on, hr. per month <u>milesy</u> current low high type adjustment current low high type adjustment current low high type adjustment current low	Raw 7 7 7	200 87.3 A/Flc/Ch/pH/Rfu/Na 7 7 7 - 7 7 - 7 7 - 7 7 - 7 7 - 7 7 - 7 7 - 7 7 - 7 7 - 7 7 - 7 7 - - 7 7 - - 7 7 - - 7 7 - - - 7 7 7 - - 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment. Weekly Sampling Routine free Cl2 total Cl2 turbidky temperature pH Floride Color Hardness Ma Fe Alkabinity Microbial Cosgulants Polymer Soda Ash	m3 on, hr. per month <u>ratesy</u> current low high type adjustment current low high type adjustment current low high adjustment current low high current current low	Raw 7 7 7	200 87.3 A/Flc/Ch/pH/Rfu/Na 7 7 7 - 7 7 - 7 7 - 7 7 - 7 7 - 7 7 - 7 7 - 7 7 - 7 7 - 7 7 - 7 7 - - 7 7 - - 7 7 - - 7 7 - - - 7 7 7 - - 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment. Weekly Sampling Routine free Cl2 total Cl2 turbidky temperature pH Floride Color Hardness Ma Fe Alkabinity Microbial Cosgulants Polymer Soda Ash	m3 on, hr. per month <u>milesy</u> current low high type adjustment current low high type adjustment current low high type adjustment current low	Raw 7 7 7	200 87.3 A/Flc/Ch/pH/Rfu/Na 7 7 7 - 7 7 - 7 7 - 7 7 - 7 7 - 7 7 - 7 7 - 7 7 - 7 7 - 7 7 - 7 7 - - 7 7 - - 7 7 - - 7 7 - - - 7 7 7 - - 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment. Weekly Sampling Routine free Cl2 total Cl2 turbidky temperature pH Floride Color Hardness Ma Fe Alkabinity Microbial Cosgulants Polymer Soda Ash	m3 on, hr. per month mensy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type type adjustment current low high type type type type adjustment current low high type type type type type type type type	Raw 7 7 7	200 87.3 A/FL/Ch/M/Rfu/Na 7 7 7 7 7 7 7 7 7 7 7 7 7	
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routing free C12 total C12 turbidity temperature pH Flocide Color Hardness Ma Fe Alkalimity Microbial Chemical Doxing and Operating St Cosgularits	m3 on, hr. per month <u>mstery</u> current low high type adjustment current low high type adjustment current low high idy type adjustment current low high type adjustment current low high djustment current low high djustment current low high djustment current low high djustment current low high djustment current low high djustment current low high djustment current low high djustment current low high djustment current low high djustment current low high djustment current low high djustment current low high djustment current low high djustment current low high djustment current low high djustment current low high djustment current low high djustment current low high djustment current low high djustment current low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low	Raw 7 7 7	200 87.3 ArFL/Chr/H/R.fl/Nas 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routing free C12 total C12 turbidity temperature pH Flocide Color Hardness Ma Fe Alkalimity Microbial Chemical Doxing and Operating St Cosgularits	m3 on, hr. per month micesy current low high type adjustment current low high high byp adjustment current low high high high high high high high high high high high high high high high current low high high current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high current low high current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current	Raw 7 7 7	200 87.3 A/FL/Chr/pH/R.fl/Nsr 7 7 7 7 7 7 7 7 7 7 7 7 7	
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free Cl2 bold Cl2 hurbidity temperature pH Floride Color Hardness Ma Fe Alkalinity Microbial Chemical Doxing and Operating St Cosgularits	m3 on, hr. per month merecurrent low high current low high type adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high low high adjustment current low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low	Raw 7 7 7	200 87.3 A/FL/Ch/M/Rfu/Na 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routing free C12 total C12 turbidity temperature pH Flocide Color Hardness Ma Fe Alkalimity Microbial Chemical Doxing and Operating St Cosgularits	m3 on, hr. per month mtcgy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high high high high high high high high high high high high high high high high high	Raw 7 7 7	200 87.3 A/FL/Chr/pH/R.fl/Nsr 7 7 7 7 7 7 7 7 7 7 7 7 7	
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment. Weekly Sampling Routine free Cl2 total Cl2 turbidky temperature pH Floride Color Hardness Ma Fe Alkabinity Microbial Cosgulants Polymer Soda Ash	m3 on, hr. per month merecurrent low high current low high type adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high low high adjustment current low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low	Raw 7 7 7	200 87.3 A/FL/Ch/M/Rfu/Na 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routing free C12 total C12 turbidity temperature pH Flocide Color Hardness Ma Fe Alkalimity Microbial Chemical Doxing and Operating St Cosgularits	m3 on, hr. per month mtcgy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high high high high high high high high high high high high high high high high high	Raw 7 7 7	200 87.3 A/FL/Ch/M/Rfu/Na 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 botal C12 burbidity Elocide Color Hardness Ma Fe Alkalimity Microbial Chemical Doring and Operating Si Coagalants Polymer Soda Ash Disinfection	m3 on, hr. per month merey current low high type adjustment current low high dype adjustment current low high adjustment current low high type adjustment current low high type adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high high adjustment current low high high adjustment current low high high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low low low low low low low low	Raw 7 7 7	200 87.3 A/FL/Ch/M/Rfu/Na 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routing free C12 total C12 turbidity temperature pH Flocide Color Hardness Ma Fe Alkalimity Microbial Chemical Doxing and Operating St Cosgularits	m3 ca, hr. per month mtcgy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	Raw 7 7 7	200 87.3 A/FL/Ch/M/Rfu/Na 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 botal C12 burbidity Elocide Color Hardness Ma Fe Alkalimity Microbial Chemical Doring and Operating Si Coagalants Polymer Soda Ash Disinfection	m3 on, hr. per month rescurrent low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	Raw 7 7 7	200 87.3 A/FL/Ch/M/Rfu/Na 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 botal C12 burbidity Elocide Color Hardness Ma Fe Alkalimity Microbial Chemical Doring and Operating Si Coagalants Polymer Soda Ash Disinfection	m3 on, hr. per month milesy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type	Raw 7 7 7	200 87.3 A/FL/Ch/M/Rfu/Na Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 botal C12 burbidity Elocide Color Hardness Ma Fe Alkalimity Microbial Chemical Doring and Operating Si Coagalants Polymer Soda Ash Disinfection	m3 on, hr. per month rescurrent low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	Raw 7 7 7	200 87.3 A/FL/Ch/M/Rfu/Na 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	

2

Type of Sample Raw Treated Distributed Temperature deg C - - 17.7 pH 7.7 7.5 7.6 7.6 Conductivity Miro ohmsic 230 310 310 Turbidity NTU 2 0.12 0.17 Total Chlorine mg/L - 1.15 1.4 Free Chlorine mg/L - 0.18 12 Color TCU 20 <0 <0 <0 Ammornia mg/L - 0.18 12 Odour Internsity out of 3 - 1 0.5 Odour Internsity out of 10 - 3 4 Flavour Comment - 41 45 Total Coliforms cfu/100ml 1 <1 <1 <1 Hearottopic Plate Count (7 day) cfu/1 mL 9 <1 <1 <1 Hearottopic Plate Count (7	
Temperature deg C - - 1.7.7 pH 7.7 7.5 7.6 Conductivity Miro ohms/c 220 310 310 Turbidity NTU 2 0.12 0.17 1.15 1.4 Transitity NTU 2 0.12 0.17 1.15 1.4 Free Chlorine mg/L - 0.18 12 2 0.02 <0	
pH 7.7 7.5 7.6 Conductivity Miro ohms/c 220 310 310 Turbidity NTU 2 0.12 0.17 Total Chlorine mg/L - 1.15 1.4 Free Chlorine mg/L - 0.18 12 Color TCU 20 <0	
Conductivity Mire ohms/c 230 310 310 Turbidity NTU 2 0.12 0.17 Total Chlorine rng/L - 1.15 1.4 Free Chlorine rng/L - 0.18 12 Color TCU 20 <0	
Turbidity NTU 2 0.12 0.17 Total Chlorine mg/L - 1.15 1.4 Free Chlorine mg/L - 0.18 12 Color TCU 20 <0	
Total Chlorine mg/L - 1.15 1.4 Free Chlorine mg/L - 0.18 12 Color TCU 20 <0	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	
Color TCU 20 <0 <0 Armmonia mg/L <0	
Odour Type - chlorine chemical Odour tistensity out of 3 - 1 0.5 Flavour Profile out of 10 - 3 4 Flavour Profile out of 10 - 3 4 ThMs ug/L - 41 45 Total Coliforms cfu/100ml 1 <1	
Odour Internative out of 3 - 1 0.5 Flavour Profile out of 10 - 3 4 Flavour Profile out of 10 - 3 4 Flavour Comment - 41 45 Total Coliforms cfu/100ml 1 <1	
Flavour Profife out of 10 - 3 4 Flavour Comment ug/L - 41 45 Total Coliforms cfu/100ml 1 <1	
Flavour Comment ug/L - 41 45 Total Coliforms cfu/100ml 1 <1	
THMs ug/L - 41 45 Total Coliforms cfu/100ml 1 <1	
Total Coliforms cfu/100ml 1 <1	
Total Coliforms cfu/100ml 1 <1	
Facal Coliforms cfu/100ml <1 <1 <1 <1 Heterotropic Plate Court (#8 hr) cfu'1 mL 158 <1	
Facal Coliforms cfu/100ml <1 <1 <1 <1 Heterotropic Plate Court (#8 hr) cfu'1 mL 158 <1	
Heterotropic Plate Count (48 hr) cfu/1 mL 158 <1	
Heterotropic Plate Count (7 days) cfu'1 mL 9 <1	
Klabnialla cfu/100ml <1	
Facal Streptococcus cfu/100ml 1 <1 <1 <1 Molds cfu/1 mL 10 <1	
Molds cfu/l mL 10 <1 - Yeast cfu/l mL 14 <1	
Yeast cfu/l mL 14 <1 - Iron Reducing Bacteria org/l mL 2 <0.3	
Iron Reducing Bacteria org/1 mL 2 <0.3	
Salfate Reducing Bacteria org/1 mL 2 <0.3	
Sulfite Reducing Bacteria org/1 mL 4 -0.3 <0.3	
Thiosulfate Reducing Bacteria org/1 mL >110 0.9 9 Iron Oxidizing Bacteria org/1 mL 110 <0.3	
Iron Oxidizing Bacteria org/1 mL 110 <0.3 0.4	
Plant Operations	
T & O problems yes	
spring ponds turn over	
Hardness high 170	
low 100	
Descent Filter Destroyab	
Recycel Filter Backwash yes	
to raw water reavours Distribution system fluching program BO	
Dana Carter Channe and Barne	
only when recieve dirty water calls Storage m3 14775	
Ave. Theoretical Hydraulic Detention, hr. 24.9	
Treatment RWR/CgA/NH3/Cl2/TO/Flc/Sd/Rfl/Flu/TWR	
Weekly Sampling Routine Raw Treated	
free CL2 42	
total C12 -	
turbidity 84	
temperature 7 -	
pH 84	
Floride 42	
Color 7	
Hardness 21	
-	
Fe -	
Alkalinity 21	
Microbial per month	
Chemical Dosing and Operating Strategy Consentants current 60	
Congularits current 60	
low 50	
low 50 high 70	
low 50 high 70 type allorn	
low 50 high 70 type altorn adjustment based on turbidity in final	
low 50 high 70 type altrm admament based on turbidity in final Polymer current 0.16	
low 50 high 70 type alum adjuatment based on turbidity in final Polymer current 0.16 low -	
low 50 high 70 type altorn adjustment based on turbidity in final Polymer current 0.16 low - high 0.25	
low 50 high 70 type alum adjusment based on turbidity in final Polymer current 0.16 low - high 0.25 type 7	
low 50 high 70 type alum adjustment based on turbidity in final Polymer current 0.16 low - high 0.25 type ? adjustment not adjusted often	
low 50 high 70 type altorn adjustment based on turbidity in final Potymer current 0.16 low - high 0.25 type ? adjustment not adjusted often Soda Ash current 30	
low 50 high 70 type altorn adjussment based on turbidity in final Polymer current 0.16 low - high 0.25 type 7 adjusted often Soda Ash current 30	
low 50 high 70 type alum adjustment based on turbidity in final Polymer current 0.16 low - high 0.25 type 7 adjustment not adjusted often Soda Ash current 30 low - high 35	
low 50 high 70 type alturn adjustment based on turbidity in final Polymer current 0.16 low - high 0.25 type 7 adjustment not adjusted often Soda Ash current 30 low - high 35 adjustment based on pH	
low 50 high 70 type altorn adjustment based on turbidity in final Polymer current 0.16 low - high 0.25 type 7 adjustment not adjusted often Soda Ash current 30 low - high 55 adjustment based on pH 55 adjustment based on pH 55 adjustment 2.8	
low 50 high 70 type alum adjustment based on turbidity in final Polymer current 0.16 low - high 0.25 type 7 adjustment not adjusted often Soda Ash current 30 low - high 35 adjustment based on pH Current 2.8 Disinfection 2.1	
low 50 high 70 type alturn adjustment based on turbidity in final Polymer current 0.16 low - high 0.25 type 7 adjustment not adjusted often Soda Ash current 30 low - high 35 adjustment based on pH Disanfection current 2.8 low 2.1 bigh -	
low 50 high 70 type alum adjustment based on turbidity in final Polymer current 0.16 low - high 0.25 type 7 adjustment not adjusted often Soda Ash current 30 Low - high 35 adjustment based on pH Disanfection 2.8 Low 2.1 high - type C12	
low 50 high 70 type alurn. adjustment based on turbidity in final Polymer current 0.16 low - high 0.25 type 7 adjustment not adjusted often Soda Ash current 30 low - high 35 adjustment based on pH Dismfection current 2.8 bigh 25 adjustment based on pH Current 2.8 bigh 55 adjustment based on pH Current 2.8 bigh - type C12 adjustment based on residual	
low 50 high 70 high 70 high 0.16 low - high 0.25 type 7 adjustment 0.16 low - high 0.25 type 7 adjustment 70 soda Ash 0.25 type 7 adjustment 30 low - high 35 adjustment 30 low - high 35 adjustment 0.16 Current 30 low - high 35 adjustment 0.16 current 2.2 low - high 35 adjustment 0.25 type 7 current 30 low - high 35 adjustment 0.25 type 7 current 30 low - high 35 adjustment 0.25 type 7 current 30 low - high 35 adjustment 0.28 low 2.1 high - type 7 cl2 2 adjustment 0.28 low 2.1 high - type 7 cl2 2 adjustment 0.3	
low 50 high 70 high 70 high 10.16 low adjustment 0.16 low - high 0.25 high 0	
low 50 high 70 high 70 adjustment based on turbidity in final Polymer current 0.16 low - high 0.25 type 7 adjustment not adjusted often Soda Ash current 30 low - high 35 bismfection current 2.8 low 2.1 high - type C12 adjustment based on residual Current 0.8 low 7 high 7	
low 50 high 70 high 70 shigh 70 shigh 70 shigh 0.16 low - high 0.25 type 7 adjustment 0.16 low - high 0.25 type 7 adjustment 30 low - high 35 adjustment 30 low - high 35 adjustment based on pH Disanfection Current 2.8 low 2.1 high - type C12 adjustment based on residual low 7 high - type C12 adjustment 0.8 low 7 high 7 low 7 high 7 low 7 high	
low 50 high 70 high 70 high 70 high 10.16 low - high 0.25 high 0.2	
low 50 high 70 high 70 otype alturn adjustment based on turbidity in final Polymer current 0.16 low - high 0.25 type 7 adjustment not adjusted often Soda Ash current 30 low - high 35 adjustment based on pH Dismfection current 2.8 Dismfection current 2.8 Low 2.1 high - type C12 adjustment based on residual low 2.1 high - type C12 adjustment based on residual low 7 high 1	
low 50 high 70 high 70 high 70 high 70 high 70 high 81 high 92 high 93	
low 50 high 70 high 70 otype alturn adjustment based on turbidity in final Polymer current 0.16 low - high 0.25 type 7 adjustment not adjusted often Soda Ash current 30 low - high 35 adjustment based on pH Dismfection current 2.8 Dismfection current 2.8 Low 2.1 high - type C12 adjustment based on residual low 2.1 high - type C12 adjustment based on residual low 7 high 1	

			FORT VERMILION 29-Jun-94	1
Type of Sample		Raw	Treated	Distributed
Temperature	deg C	17.7	16.7	10.9
pH		7.2	6.95	6.4
Conductivity	Miro ohms/c	250	280	-
Turbidity	NTU	65.8	0.62	2
Total Chlorine	mg/L	NA	0.63	0.37
Free Chlorine	mg/L	NA	0.5	0.31
Color	TCU	160	0	<0
Ammonia	mg/L	0.043	ŀ	-
Odour Type		none	chlorine	-
Odour Intensity	out of 3	0	0.5	-
Flavour Profile	out of 10	NA	8	-
Flavour Comment			ļ	1
THMs	ug/L	-	52	74
Total Coliforms	cfu/100ml	confl	<1	<1
Fecal Coliforns	cfu/100ml	6	<1	<1
Heterotropic Plate Count (48 hr)	cfu/1 mL	131	3	1
Heterotropic Plate Count (7 days)		236	<1	1
Klebsiella	cfu/100ml	confl	<1	<1
Fecal Streptococcus	cfu/100ml	12	<1	<1
Molds	cfu/1 mL	3	<1	<1
Yeast	cfu/1 mL	40	<1	1
Iron Reducing Bacteria	org/1 mL		1	l.
Sulfate Reducing Bactena	ong/1 mL			
Sulfite Reducing Bacteria	org/1 mL			
	org/1 mL			
Thiosulfate Reducing Bacteria				
Iron Oxidizing Bacteria	org/1 mL			
Plant Operations				
Person hours to operate plant per v	week		12	
T & O problems			no	
Hardness	high		low	
	low		low	
Recycel Filter Backwash			סת	
Distribution system flushing progra	am.		yes	
Storage	m 3		1023	
unava mail G	لسلعه		2	
	m 2		\$20	
Average Daily Production	m3 on, hr.		520 47.2	
Average Daily Production Ave. Theoretical Hydraulic Detenti		7 ,10 m	47.2	01172
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment			47.2 /CgA/Fic/Cb/Rfb/Cl2	/TWR
Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routine		RWR	47.2 /CgA/Flc/Ch/Rflt/Cl2 Treated	/TWR
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free Cl2			47.2 /CgA/Flc/Ch/Rflt/Cl2 Treated 7	/TWR
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12			47.2 /CgA/Flc/Ch/Rflt/Cl2 Treated 7 7	/TWR
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 hurbidity			47.2 /CgA/Flc/Ch/Rflt/Cl2 Treated 7	/TWR
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 total C12 temperature			47.2 /C <u>RA/FIC/Clr/Rflt/Cl2</u> Treated 7 7 7	/TWR
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 total C12 total C12 tarbidity Lemperature pH			47.2 /CgA/Flc/Ch/Rflt/Cl2 Treated 7 7	/TWR
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free Cl2 total Cl2 burbidity Lempersoure pH Floride			47.2 /C <u>RA/FIC/Clr/Rflt/Cl2</u> Treated 7 7 7	/TWR
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sempling Routine free C12 total C12 harbidity Lemperature pH Floride Color			47.2 /C <u>RA/FIC/Clr/Rflt/Cl2</u> Treated 7 7 7	/TWR
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 total C12 tambridicy Leargersture pH Floride Color			47.2 /C <u>RA/Flc/Clr/Rflt/Cl2</u> Treated 7 7 7	/TWR
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 total C12 total C12 total C12 total C12 baby temperature pH			47.2 /C <u>RA/Flc/Clr/Rflt/Cl2</u> Treated 7 7 7	/TWR
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment. Weekly Sampling Routine free C12 total C12 tambersture pH Floride Color Hardness Ma Fe			47.2 /C <u>RA/Flc/Clr/Rflt/Cl2</u> Treated 7 7 7	/TWR
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment. Weekly Sampling Routine free C12 total C12 tambersture pH Floride Color Hardness Ma Fe			47.2 /C <u>RA/Flc/Clr/Rflt/Cl2</u> Treated 7 7 7	/TWR
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity Emperature pH Floride Color Floride Color Hardness Ma Fe Alkalinity	on, hr.		47.2 /C <u>RA/Flc/Clr/Rflt/Cl2</u> Treated 7 7 7	/TWR
Average Daily Production Ave. Theoretical Hydraulic Detenti Weekly Sampling Routine free C12 total C12 total C12 tambidity temperature pH Floride Color Hardness Ma Fe Alkelinity Microbial Chemical Dosing and Operating St	pet monuh		47.2 /CgA/Fb//Cb/Rdb/C12 Treated 7 7 7 - - 4	/TWR
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 total C12 temperature appl Floride Color Hardness	pet monuh nelesy current		47.2 /Cg/Fb//Cb/Rdb/Cl2 Treated 7 7 7 - - - 4 90	/TWR
Average Daily Production Ave. Theoretical Hydraulic Detenti Weekly Sempling Routine free C12 total C12 total C12 tambersture pH Floride Color Hardness Ma Fe a Mikelinity Microbial Chemical Dosing and Operating St	pet month netsy current Jow		47.2 /CgA/Fb//Cb/Rfb/Cl2 Treated 7 7 7 7 7 - - - 4 90 20	/TWR
Average Daily Production Ave. Theoretical Hydraulic Detenti Weekly Sampling Routine free C12 total C12 total C12 tambidity temperature pH Floride Color Hardness Ma Fe Alkelinity Microbial Chemical Dosing and Operating St	pet monuh mický cuzreni low high		47.2 /CgA/Flu/Clr/Rdlr/Cl2 Treated 7 7 7 - - - - - - - - - - - - -	/TWR
Average Daily Production Ave. Theoretical Hydraulic Detenti Weekly Sampling Routine free C12 total C12 total C12 tambidity temperature pH Floride Color Hardness Ma Fe Alkelinity Microbial Chemical Dosing and Operating St	pet month raingy current low high type		47.2 /CgA/Fla/Cla/Rdft/Cl2 Treated 7 7 7 7 - - - - 4 90 20 Pesss 100	
Average Daily Production Ave. Theoretical Hydraulic Detention Treatment. Weekly Sampling Routine free C12 total C12 total C12 tarbidity Leargersture pH Floride Color Floride Color Hardness Ma Fe Alkalinity Microbial Congulants	pet monult reference reference current low high type adjustment		47.2 //Cg//Fl//Ch//Rfl//Cl2 //Tested 7 7 7 7 7 7 9 9 9 9 0 2 0 120 Pass 100 based on tarb in raw	
Average Daily Production Ave. Theoretical Hydraulic Detenti Weekly Sampling Routine free C12 total C12 total C12 tambidity temperature pH Floride Color Hardness Ma Fe Alkelinity Microbial Chemical Dosing and Operating St	pet monuh mersy current low high type adjustment current		47.2 /CgA/Fb//Cbr/Rftl/C12 Treated 7 7 7 - - - - - - - - - - - - -	
Average Daily Production Ave. Theoretical Hydraulic Detention Treatment. Weekly Sampling Routine free C12 total C12 total C12 tarbidity Leargersture pH Floride Color Floride Color Hardness Ma Fe Alkalinity Microbial Congulants	pet monult reference reference current low high type adjustment		47.2 //Cg//Fl//Ch//Rfl//Cl2 //Tested 7 7 7 7 7 7 9 9 9 9 0 2 0 120 Pass 100 based on tarb in raw	
Average Daily Production Ave. Theoretical Hydraulic Detention Treatment. Weekly Sampling Routine free C12 total C12 total C12 tambridky temperature pH Floride Color Hardness Ma Fre Alkalinity Microbial Chemical Dosing and Operating St Congulants	pet monuh mersy current low high type adjustment current		47.2 /CgA/Fb//Cbr/Rftl/C12 Treated 7 7 7 - - - - - - - - - - - - -	
Average Daily Production Ave. Theoretical Hydraulic Detention Treatment. Weekly Sampling Routine free C12 total C12 total C12 tarbidity Leargersture pH Floride Color Floride Color Hardness Ma Fe Alkalinity Microbial Congulants	pet month mercy current low high current low		47.2 (C_RA/F)c/Ch/Rfll/Cl2 Treated 7 7 7 7 7 7 7 7 7 7 7 9 90 20 120 Pass 100 based on turb in raw 0.3 0.03	
Average Daily Production Ave. Theoretical Hydraulic Detention Treatment. Weekly Sampling Routine free C12 total C12 total C12 tambridky temperature pH Floride Color Hardness Ma Fre Alkalinity Microbial Chemical Dosing and Operating St Congulants	pet monuh raiergy current low high current low bigh high type		47.2 /CgA/Fl//Ch/Rfl//Cl2 Treated 7 7 7 - - - - - - - - - - - - -	water
Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routine free C12 birthicky emperature pH Floride Color Harchoss Ma Fe Alkalinity Microbial Chemical Desing and Operating St Cosgulants	pet monuh mirky current low high type current low high type type		47.2 /CgA/Fb//Cbr/Rfk/C12 Treated 7 7 7 - - - - - - - - - - - - -	water
Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routine free C12 birthicky emperature pH Floride Color Harchoss Ma Fe Alkalinity Microbial Chemical Desing and Operating St Cosgulants	pet month mirky current low high type adjustment current low high type adjustment current low high type adjustment current low		47.2 /CgA/Fb//Cbr/Rfk/C12 Treated 7 7 7 - - - - - - - - - - - - -	water
Average Daily Production Ave. Theoretical Hydraulic Detention Treatment. Weekly Sampling Routine free C12 total C12 total C12 tambridky temperature pH Floride Color Hardness Ma Fre Alkalinity Microbial Chemical Dosing and Operating St Congulants	pet month messy current low high type adjustment current low high type adjustment current low high type adjustment current low		47.2 /CgA/Fb//Cbr/Rfk/C12 Treated 7 7 7 - - - - - - - - - - - - -	water
Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routine free C12 total C12 turbidity Learpensture pH Floride Color Floride Color Floride Color Floride Color Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Softa Ash	pet month mercy current low high type adjustment current low bigh type adjustment current low bigh dijustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low		47.2 /CgA/Fl//Ch/Rfl//Cl2 Treated 7 7 7 - - - - - - - - - - - - -	water
Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routine free C12 total C12 turbidity Learpensture pH Floride Color Floride Color Floride Color Floride Color Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Softa Ash	pet month mercy current low high type adjustment current low high type adjustment current low high type adjustment current low high adjustment current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current curent current current current current		47.2 /CgA/Fle/Clr/Rdft/Cl2 Treated 7 7 7 - - - - - - - - - - - - -	water
Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routine free C12 total C12 turbidity Learpensture pH Floride Color Floride Color Floride Color Color Floride Color Color Floride Color Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Softa Ash	pet month mercy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low		47.2 //CgA/Flc/Ch/Rflt/Cl2 /rested 7 7 7 4 90 20 120 Pass 100 based on turb in raw 0.3 0.3 preastol 2515 tr adjusted with pass 10	water
Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routine free C12 total C12 turbidity Learpensture pH Floride Color Floride Color Floride Color Color Floride Color Color Floride Color Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Floride Color Softa Ash	pet month mercy current low high type adjustment current low high type adjustment current low high type adjustment current low high adjustment current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current curent current current current current		47.2 /CgA/Fl//Ch/Rfk//Cl2 Treated 7 7 7 7 - - - - - - - - - - - - -	water
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity lemperature pH Floride Color Hardness Ma Fe Alkalinity Microbial Computants Polymer Soda Ash	pet month mercy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low		47.2 //CgA/Flc/Ch/Rflt/Cl2 /rested 7 7 7 4 90 20 120 Pass 100 based on turb in raw 0.3 0.3 preastol 2515 tr adjusted with pass 10	water
Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routine free C12 barbidity Lempersture pH Floride Color Hardness Ma Fe Alkalinity Microbial Chemical Desing and Operating St Cosgulants	pet monuh meret monuh merety current low high type adjustment current low bigh dijustment current low bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh		47.2 /CgA/Fl//Ch/Rfk/Cl2 Treated 7 7 7 7 - - - - - - - - - - - - -	water
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity lemperature pH Floride Color Hardness Ma Fe Alkalinity Microbial Computants Polymer Soda Ash	pet month mercy current low high type adjustment current low high sdjustment current low high adjustment current low high bigh adjustment current low high type adjustment current low high type adjustment current low high type		47.2 (CgA/F)c/Ch/Rfll/Cl2 (Treated 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	water
Average Daily Production Ave. Theoretical Hydraulic Detention Treatment. Weekly Sampling Routine free C12 Intrividity Lemperature pH Floride Color Hardness Ma Fe Alkalinity Microbial Chemical Dosing and Operating St Congulants Polymer Soda Ash Disinfection	pet month mercy current low high type adjustment current low high adjustment current low high adjustment current low high adjustment current low		47.2 (CgA/F)c/Ch/Rfll/Cl2 (Treated 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	water
Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routine free C12 brand Sampling Routine free C12 brand Sampling Routine free C12 brand Sampling Routine Free C12 brand Sampling Routine Free C12 Close C12 Hardness Ma Free C12 Hardness Ma Close C12 Hardness Ma Free C12 Close C12 Hardness Ma Free C12 Close C12 Hardness Ma Free C12 Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hard	pet month mercy current low high type adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high blow high blow high blow high blow high blow high blow high blow high blow high blow high blow high blow high blow high blow high blow high blow high blow high blow high blow high blow high blow high blow high blow high blow high blow high blow high blow high blow high blow high blow high blow high blow high blow high blow high blow high blow high blow high blow high blow high blow high blow high blow high blow high blow high blow high blow high blow high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high		47.2 (CgA/F)c/Ch/Rfll/Cl2 (Treated 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	water
Average Daily Production Ave. Theoretical Hydraulic Detention Treatment. Weekly Sampling Routine free C12 Intrividity Lemperature pH Floride Color Hardness Ma Fe Alkalinity Microbial Chemical Dosing and Operating St Congulants Polymer Soda Ash Disinfection	pet month mercy current low high type adjustment current low high type adjustment current low bigh adjustment current low bigh adjustment current low bigh type adjustment current low bigh type adjustment current low bigh type adjustment current low bigh type adjustment current low bigh type adjustment current low bigh type adjustment current low bigh type adjustment current low bigh adjustment current low bigh adjustment current low bigh type adjustment current low bigh type adjustment current low bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh		47.2 (CgA/F)c/Ch/Rfll/Cl2 (Treated 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	water
Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routine free C12 brand Sampling Routine free C12 brand Sampling Routine free C12 brand Sampling Routine Free C12 brand Sampling Routine Free C12 Close C12 Hardness Ma Free C12 Hardness Ma Close C12 Hardness Ma Free C12 Close C12 Hardness Ma Free C12 Close C12 Hardness Ma Free C12 Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hardness Hard	pet monuh merey current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type type adjustment current low high type bigh type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type		47.2 (CgA/F)c/Ch/Rfll/Cl2 (Treated 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	water
Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routine free C12 birbidity emperature pH Floride Color Hardness Ma Fe Alkalinity Microbial Chemical Dosing and Operating St Coagulants Polymer Soda Ash Disinfection	pet month messy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment type adjustment type adjustment type blow high high type blow high high high type blow high high type adjustment type blow high high high type blow high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high		47.2 (CgA/F)c/Ch/Rfll/Cl2 (Treated 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	water
Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routine free C12 birbidity emperature pH Floride Color Hardness Ma Fe Alkalinity Microbial Chemical Dosing and Operating St Coagulants Polymer Soda Ash Disinfection	pet month metropy metropy current low high type adjustment current low high dips dipstment current low high bigh adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high current current current low high type adjustment current low high type adjustment current low high type adjustment current low		47.2 (CgA/F)c/Ch/Rfll/Cl2 (Treated 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	water
Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routine free C12 birbidity emperature pH Floride Color Hardness Ma Fe Alkalinity Microbial Chemical Dosing and Operating St Coagulants Polymer Soda Ash Disinfection	pet month mercy current low high type adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high low high adjustment current low high low high low high low high adjustment current low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low low high low low high low low low low high low low low low low low low low		47.2 (CgA/F)c/Ch/Rfll/Cl2 (Treated 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	water
Average Daily Production Ave. Theoretical Hydraulic Detention Treatment. Weekly Sampling Routine free C12 Intrividity Lemperature pH Floride Color Hardness Ma Fe Alkalinity Microbial Chemical Dosing and Operating St Congulants Polymer Soda Ash Disinfection	pet month metropy metropy current low high type adjustment current low high dips dipstment current low high bigh adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high current current current low high type adjustment current low high type adjustment current low high type adjustment current low		47.2 (CgA/F)c/Ch/Rfll/Cl2 (Treated 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	wäler

	·		FOX CREEK	
Type of Sample		Raw	9-Jun-94 Treated	Distributed
Temperature	deg C	8	bad sample	10
pH		6.8	our antipic	6.8
Conductivity	Miro ohms/c			1230
Turbidity	NTU	0.31		0.15
Total Chlorine	mg/L	NA	1	2
Free Chlorine	mg/L	NA		1.4
Color	TCU	<0		0
Ammonia	mg/L	0.36		-
Odour Type	-	rotten eggs		muggy chemical
Odour Intensity	out of 3	2		1
Flavour Profile	out of 10	NA		4
Flavour Comment				mouth feel
				1
THMs	ug/L	-	-	-
				1
Total Coliforms	cfu/100ml	<1	<1	<1
Fecal Coliforns	cfu/100ml	<1	<1	<1
Heterotropic Plate Count (48 hr)	cfu/l mL	<1	<1	<1
Heterotropic Plate Count (7 days)	cfu/1 mL	<1	1	2
Klebziella	cfu/100ml	<1	<1	<1
Fecal Streptococcus	cfu/100ml	<1	<1	<1
Molds	cfu/1 mL	-	-	-
Yeast	cfu/l mL	l-	-	-
Iron Reducing Bacteria	org/1 mL			
Sulfate Reducing Bacteria	org/l mL	1	1	1
Sulfite Reducing Bacteria	org/1 mL		1	1
Thiomifate Reducing Bacteria	org/1 mL	i		
Iron Oxidizing Bacteria	org/1 mL	1		
Ū.	_	l	1	1
Plant Operations			I	
Person hours to operate plant per v	week		12	
T & O problems			no	
_	1.1.1			
Hærdness	high		-	
	low		•	
Barrinal Filter Dealers -				
Recycel Filter Backwash			no	
Distribution system flushing progra	am.		?	
Simple	m3		0	
Storage	m3	1	936	
Average Daily Production			0.0	
Ave. Theoretical Hydraulic Detenti	OIL, AT.		0.0 m3	
Treatment		(31/1)F	m3 e re/Gsflt/NaOCI)(2F	e sen/C12)
Weekly Sampling Routine		Raw	Treated	
free Cl2				
total Cl2			14	
turbidity			1.1	
temperature				
pH Florida			ľ	
Floride			-	
Color			-	
Hardness		1_	1	
Mn		2	2	
Fe		2	2	
Alkelinity		1	-	
		1	1	
Microbial Chemical Dosing and Operating St	pet month		1	
Coagulants	current		-	
	low		-	
	high	1		
	type			
	adjustment	1		
Pohmer	CTUTIONT	,	-	
Polymer	current	1		
Polymer	low	Į	-	
Polymer	low high		-	
Polymer	low high type		-	
	low high type adjustment		-	
	low high type adjustment current		-	
	low high type adjustment current low		•	
	low high type adjustment current low high		-	
Soda Ash	low high type adjustment current low high adjustment		-	
Soda Ash	low high type adjustment current low high adjustment current		-	
Soda Ash	low high type adjustment current low high adjustment current low		?	
Soda Ash	low high type adjustment current low high adjustment current low high		? ?	
Soda Ash	low high type adjustment current low high adjustment current low high type		? ? Cl2 gas and NaOCl	
Soda Ash	low high type adjustment current low high adjustment current low high		? ? Cl2 gas and NaOCl	om distribution syst
Soda Ash Disinfection	low high type adjustment current low high adjustment current low high type		? ? Cl2 gas and NaOCl	om distribution syste
Polymer Soda Ash Disinfection T & O control	low high type adjustment current low high current low high type sdjustment		? ? Cl2 gas and NaOCl	om distribution syste
Soda Ash Disinfection	low high type adjustment current low adjustment current low type adjustment current low		? ? Cl2 gas and NaOCl	om distribution syste
Soda Ash Disinfection	low high type adjustment current low high adjustment current low high type sdjustment current low		? ? Cl2 gas and NaOCl	om distribution syste
Soda Ash Disinfection	low high type adjustment current low high adjustment current low high type sdjustment current low high type		? ? Cl2 gas and NaOCl	om distribution syste
Soda Ash Disinfection T & O control	low high type adjustment current low high adjustment current low high adjustment current low high type adjustment current low		? ? Cl2 gas and NaOCl	om distribution syste
Soda Ash Disinfection	low high sdjustment current low high adjustment current low high type sdjustment current low high type adjustment current		? ? Cl2 gas and NaOCl	om distribution syste
Soda Ash Disinfection T & O control	low high type adjustment current low high adjustment current low high type adjustment current low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high high high high high high high hig		? ? Cl2 gas and NaOCl	om distribution syste
Soda Ash Disinfection I & O control	low high type adjustment current low high adjustment current low high type adjustment current low high high high high high		? ? Cl2 gas and NaOCl	om distribution syste
Soda Ash Disinfection T & O control	low high type adjustment current low high adjustment current low high type adjustment current low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high high high high high high high hig		? ? Cl2 gas and NaOCl	om distribution syste

			GIFT LAKE 23-Aug-94	
Type of Sample		Raw	Treated	Distributed
Temperature	deg C	19.5	20.5	13
pH		8.4	6.6	6.9
Conductivity	Miro ohms/c	290	340	310
Turbidity	NTU	11	0.22	0.28
Total Chlorine	mg/L		0.78	0.5
		l.		
Free Chlorine	mg/L	-	0.24	0.03
Color	TCU	70	11	2
Ammonia	mg/L	0.162		0
	~~~~		ablamina	1 ⁻
Odour Type		chemical + grassy	chlorine	-
Odour Intensity	out of 3	0.1	1	-
Flavour Profile	out of 10	NA	3.5	1.
Flavour Comment	044 01 10		0.0	1-
P REVOUE CONSIDERING		1		
THMs	ug/L	-	88	83
	•			1
Total Coliforms	-8-1100-1			
	cfu/100ml	confl	<1	<1
Fecal Coliforms	cfu/100ml	6	<1	<1
Heterotropic Plate Count (48 hr)	cfu/1 mL	1950	0	16
Heterotropic Plate Count (7 days)	cfu/1 mI.	3233	12	492
		<1		
Klebniella	cfu/100ml		<1	<1
Fecal Streptococcus	cfu/100ml	99	<1	<1
Molds	cfu/1 mL	5	<1	<1
Yeast	cfu/1 mL			1 -
		confl	<1	confl
Iron Reducing Bacteria	org/1 mL	>110	<0.3	<0.3
Sulfate Reducing Bacteria	org/1 mL	>110	< 0.3	<0.3
		1		
Sulfite Reducing Bacteria		>110	<0.3	<0.3
Thiosulfate Reducing Bacteria	org/1 mL	>110	9	>110
Iron Oxidizing Bacteria	org/1 mL	>110	<0.3	>110
			1	
				L
<u>Plant Operations</u> Person hours to operate plant per v	veek		28	
T & O problems		1	yes associated with alga	e blooms
	1.1.1.	1	moverance with sign	
Hardness	high		-	
	low		-	
Remark Filter Destrumb				
Recycel Filter Backwash			20	
			yes	
Distribution mater A +				
Distribution system flushing progr	am		yes	
-				
Storage	m3		864	
Storage Average Daily Production	m3 m3		864 90.9218	
Storage	m3 m3		864	
Storage Average Daily Production	m3 m3		864 90.9218	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti	m3 m3		864 90.9218	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment	m3 m3	Den	864 90.9218 228.0	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Rontine	m3 m3	Raw	864 90.9218 228.0 Treated	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12	m3 m3	Raw	864 90.9218 228.0 Treated 7	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12	m3 m3	Raw	864 90.9218 228.0 Treated 7	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12	m3 m3	Raw	864 90.9218 228.0 Treated 7	
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 total C12 turbidity	m3 m3	Raw	864 90.9218 228.0 Treated 7	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12	m3 m3	Raw	864 90.9218 228.0 Treated 7	
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 total C12 turbidity	m3 m3	Raw	864 90.9218 228.0 Treated 7	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH	m3 m3	Raw	864 90.9218 228.0 7 7 7 7 -	
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 hurbidity temperature pH Floride	m3 m3	Raw	864 90.9218 228.0 7 7 7 7 -	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 total C12 turbidity temperature pH Floride Color	m3 m3	Raw	864 90.9218 228.0 7 7 7 7 -	
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 hurbidity temperature pH Floride	m3 m3	Raw	864 90.9218 228.0 7 7 7 7 -	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness	m3 m3	Raw	864 90.9218 228.0 7 7 7 7 -	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 hurbidity temperature pH Floride Color Hardness Mn	m3 m3	Raw	864 90.9218 228.0 7 7 7 7 -	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidaty temperature pH Floride Color Hardness Mn Fe	m3 m3	Raw	864 90.9218 228.0 7 7 7 7 -	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 total C12 turbidaty temperature pH Floride Color Hardness Mn Fe	m3 m3	Raw	864 90.9218 228.0 7 7 7 7 -	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 hurbidity temperature pH Floride Color Hardness Mn	m3 m3	Raw	864 90.9218 228.0 7 7 7 7 -	
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 mitbidity temperature pH Floride Color Hardness Mn Fe Alkalimity	m3 m3 on, hr.	Raw	864 90.9218 228.0 7 7 7 7 -	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial	m3 m3 on, hr.	Raw	864 90.9218 228.0 7 7 7 7 -	
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkalinity Microbial Chemical Doxing and Operating St	m3 m3 on, hr. per month mengy	Raw	864 90.9218 228.0 7 7 7 7 - 7 -	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 codal C12 turbidiky temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial	m3 m3 on, hr. per month relegy current	Raw	864 90.9218 228.0 7 7 7 7 -	
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Intestment Weekly Sampling Routine free C12 outle C12 mitidity emperature pH Floride Color Hardness Vin Fe Altatinity Vicrobial Chemical Downg and Operating St	m3 m3 on, hr. per month release current low	Raw	217 180	
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Intestment Weekly Sampling Routine free C12 outle C12 mitidity emperature pH Floride Color Hardness Vin Fe Altatinity Vicrobial Chemical Downg and Operating St	m3 m3 on, hr. per month relegy current	Raw	864 90.9218 228.0 7 7 7 7 - 7 -	
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkalinity Microbial Chemical Doxing and Operating St	m3 m3 on, hr. per month mensy current low high	Raw	864 90.9218 228.0 Treated 7 7 - - - - - - - - - - - - -	
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkalinity Microbial Chemical Doxing and Operating St	m3 m3 on, hr. per month meny current low high type	Raw	217 217 217 217 217 217 180 250 alum	
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosmg and Operating St Coegulants	m3 m3 on, hr. per month mengy current low high type adjustment	Raw	864 90.9218 228.0 7 7 7 7 - - - - - - - - - - - - - - -	n settling tank
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkalinity Microbial Chemical Doxing and Operating St	m3 m3 on, hr. per month migh current low high type adjustment current	Raw	864 90.9218 228.0 7 7 - 7 - - - - - - - - - - - - - - -	n settling tank
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosmg and Operating St Coegulants	m3 m3 on, hr. per month mengy current low high type adjustment	Raw	864 90.9218 228.0 7 7 7 7 - - - - - - - - - - - - - - -	n settling tank
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosmg and Operating St Coegulants	m3 m3 on, hr. per month mstegy current low high type adjustment current low	Raw	217 180 250 218 228.0 7 7 7 7 - - - - - - - - - - - - - - -	n settling tank
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosmg and Operating St Coegulants	m3 m3 on, hr. per month rategy current low high type adjustment current low bigh	Raw	217 180 250 217 217 217 217 217 217 217 217	n settling tank
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosmg and Operating St Coegulants	m3 m3 on, hr. per month measurement low high type adjustment low high type type	Raw	864 90.9218 228.0 7 7 7 - 7 - - - - - - - - - - - - - -	n settling tank
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Doxing and Operating St Cogulants	m3 m3 on, hr. per month meey current low high type adjustment current low high type adjustment	Raw	217 180 250 217 217 217 180 250 alum based water clainty in 0.14 0.07 0.33 ? not adjusted	n settling tank
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Doxing and Operating St Cogulants	m3 m3 on, hr. per month measurement low high type adjustment low high type type	Raw	864 90.9218 228.0 7 7 7 - 7 - - - - - - - - - - - - - -	n settling tank
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Doxing and Operating St Cogulants	m3 m3 on, hr. per month rategy current low high type adjustment current low bigh type adjustment current low	Raw	217 180 250 217 217 217 180 250 alum based water clainty in 0.14 0.07 0.33 ? not adjusted	n settling tank
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Doxing and Operating St Cogulants	m3 m3 on, hr. per month mensy current low high type adjustment current low high type adjustment current low	Raw	864 90.9218 228.0 7 7 7 7 - - - - - - - - - - - - - - -	n settling tank
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosmg and Operating St Coegulants	m3 m3 on, hr. per month relegy current low high type adjustment current low high type adjustment current low high	Raw	217 180 227 217 217 217 217 217 180 250 alum based water clainty in 0.14 0.07 0.07 0.33 ? not adjusted 12 0 30	n settling tank
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Doxing and Operating St Cogulants	m3 m3 on, hr. per month mensy current low high type adjustment current low high type adjustment current low	Raw	864 90.9218 228.0 7 7 7 7 - - - - - - - - - - - - - - -	n settling tank
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 outal C12 Immidday Jermpersture pH Floride Color Hardness Mn Fe Alkalinity Wicrobial Chemical Doamy, and Operating, St Coegulants Polymer Soda Ash	m3 m3 on, hr. per month relegy current low high type adjustment current low high type adjustment current low high	Raw	217 180 227 217 217 217 217 217 180 250 alum based water clainty in 0.14 0.07 0.07 0.33 ? not adjusted 12 0 30	n settling tank
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 outal C12 Immidday Jermpersture pH Floride Color Hardness Mn Fe Alkalinity Wicrobial Chemical Doamy, and Operating, St Coegulants Polymer Soda Ash	m3 m3 on, hr. per month meny current low high type adjustment current low high type adjustment current low high type adjustment current low	Raw	217 Treased 7 7 7 7 - - - - - - - - - - - - - - -	n settling tank
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 outal C12 Immidday Jermpersture pH Floride Color Hardness Mn Fe Alkalinity Wicrobial Chemical Doamy, and Operating, St Coegulants Polymer Soda Ash	m3 m3 on, hr.	Raw	864 90.9218 228.0 7 7 7 7 7 7 - - - - - - - - - - - - -	n settling tank
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 outal C12 Immidday Jermpersture pH Floride Color Hardness Mn Fe Alkalinity Wicrobial Chemical Doamy, and Operating, St Coegulants Polymer Soda Ash	m3 m3 on, hr. per month many current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high high type adjustment current low high high type	Raw	864 90.9218 228.0 Treated 7 7 - - - - - - - - - - - - -	n settling tank
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Doxing and Operating St Cogulants	m3 m3 on, hr.	Raw	864 90.9218 228.0 7 7 7 7 7 7 - - - - - - - - - - - - -	n settling tank
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 outal C12 Immidday Jermpersture pH Floride Color Hardness Mn Fe Alkalinity Wicrobial Chemical Doamy, and Operating, St Coegulants Polymer Soda Ash	m3 m3 on, hr. per month miggy current low high type adjustment current low high high type adjustment current low high high high high type type	Raw	217 1864 90.9218 228.0 Treased 7 7 - - - - - - - - - - - - -	n settling tank
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 transidity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosmg and Operating St Congulants Polymer Soda Ash Disinfection	m3 m3 on, hr. per month megy current low high type adjustment current low bigh type adjustment current low high type adjustment current low high type adjustment current low high type adjustment	Raw	864 90.9218 228.0 Treated 7 7 - - - - - - - - - - - - -	n settling tank
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 outal C12 Immidday Jermpersture pH Floride Color Hardness Mn Fe Alkalinity Wicrobial Chemical Doamy, and Operating, St Coegulants Polymer Soda Ash	m3 m3 on, hr. per month make type current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	Raw	864 90.9218 228.0 Treated 7 7 - - - - - - - - - - - - -	n settling tank
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 transidity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosmg and Operating St Congulants Polymer Soda Ash Disinfection	m3 m3 on, hr. per month megy current low high type adjustment current low bigh type adjustment current low high type adjustment current low high type adjustment current low high type adjustment	Ræv	217 1864 90.9218 228.0 Treased 7 7 - - - - - - - - - - - - -	n settling tank
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 transidity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosmg and Operating St Congulants Polymer Soda Ash Disinfection	m3 m3 on, hr. per month micey current low high type adjustment current low high type adjustment current low high type adjustment current low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high high high high high high high hig	Raw	864 90.9218 228.0 7 7 7 7 - - - - - - - - - - - - - - -	n settling tank
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 transidity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosmg and Operating St Congulants Polymer Soda Ash Disinfection	m3 m3 on, hr. per month megy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type type type type type type type type	Raw	864 90.9218 228.0 7 7 7 7 - - 7 - - - - - - - - - - - -	n settling tank
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 transidity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosmg and Operating St Congulants Polymer Soda Ash Disinfection	m3 m3 on, hr. per month messy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type sadjustment current low high type sadjustment current low high type type sadjustment current low high type type type type type type type type	Rxw	864 90.9218 228.0 7 7 7 7 - - - - - - - - - - - - - - -	n settling tank
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 transidity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosmg and Operating St Congulants Polymer Soda Ash Disinfection	m3 m3 on, hr. per month megy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type type type type type type type type	Raw	864 90.9218 228.0 7 7 7 7 - - 7 - - - - - - - - - - - -	n setiling tauk
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Doxing and Operating St Coagulants Polymer Soda Ash Disinfection	m3 m3 on, hr. per month merey current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type s type type type type type type type type	Raw	864 90.9218 228.0 7 7 7 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 -	n settling tank
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 transidity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosmg and Operating St Congulants Polymer Soda Ash Disinfection	m3 m3 on, hr. per month mergy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type current current low high type current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current curent current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current curent current current current current current curren	Raw	864 90.9218 228.0 7 7 7 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 -	n settling tank
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 colal C12 unbidity temperature pH Floride Color Hardness Mn Fe Alkalinity Wicrobial Chemical Doxing and Operating St Coagulants Polymer Soda Ash Disinfection	m3 m3 on, hr. per month mergy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type low high type low high type low	Raw	864 90.9218 228.0 7 7 7 7 - - - - - - - - - - - - - - -	n settling tank
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Doxing and Operating St Coagulants Polymer Soda Ash Disinfection	m3 m3 on, hr.	Raw	864 90.9218 228.0 7 7 7 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 -	n settling tank
Storage Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 colal C12 unbidity temperature pH Floride Color Hardness Mn Fe Alkalinity Wicrobial Chemical Doxing and Operating St Coagulants Polymer Soda Ash Disinfection	m3 m3 on, hr. per month mergy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type low high type low high type low	Raw	864 90.9218 228.0 7 7 7 7 - - - - - - - - - - - - - - -	n settling tank

Type of Sample Temperature			GRANDE CACHE	
		Raw	17-Ang-94 Treated	Distributed
	deg C	1.8W	Treated 16.1	Distributed 10.8
	argic	-		
рН		8.4	8	8
Conductivity	Miro ohms/c	340	350	350
Turbidity	NTU	0.55	0.59	0.65
Total Chlorine	mg/L	-	1.33	0.15
Free Chlorine	mg/L		0.98	0.02
Color	TCU	0	10	0
Ammonia	mg/L	0.007	•	<0
Odour Type		-	-	22
Odour Intensity	out of 3			1
Flavour Profile	out of 10	_		s
Flavour Comment	046.01 10	-	1	15
Linoni Counterr				
				1
THMs	ug/L	•	100	143
				1
Total Coliforms	cfu/100ml	3	<1	<1
Fecal Coliforms	cfu/100ml	<1	<1	<1
Heterotropic Plate Count (48 hr)	cfu/1 mL	35	<1	0
Heterotropic Plate Count (7 days)	cfu/l mL	159	111	248
Klebsiella	cfu/100ml	<1	<1	<i< td=""></i<>
Fecal Streptococcus	cfu/100ml	11	<1	<1
Molds	cfu/1 mL	2	1	1
Yeast				
	cfu/1 mL	12	<1	<1
Iron Reducing Bacteria	org/1 mL	46	0.4	<0.3
Sulfate Reducing Bacteria	org/1 mL	4	<0.3	<0.3
Sulfite Reducing Bacteria	onz/1 mL	9	<0.3	<0.3
Thioralfate Reducing Bacteria	org/1 mL	110	2	46
		24	1	
Iron Oxidizing Bacteria	org/1 mL	1***	<0.3	<0.3
		1		1
	<u>.</u>		1	L
Plant Operations				
Person hours to operate plant per	WOEK		14	
T & O problems			1100	
T & O problems			yes	
			in spring and somm	er
Hardness	high		-	
	low		-	
			constant	
Recycel Filter Backwash			по	
			10	
Distribution and a finite				
Distribution system flushing progr	am		yes	
			once in four years	
Storage	m3		0	
Average Daily Production	m3		1857	
Ave. Theoretical Hydraulic Detenti	on, nr.		0.0	
Ave. Theoretical Hydraulic Detenti	ion, m			
Ave, Theoretical Hydraulic Detenti Treatment	юп, дг.	Row	C12/CgA/Pflt/TWR	
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine	on, m.	Raw	Cl2/CgA/Pfli/TWR	· · · <u>2</u> · 2· <u>w. · ·</u>
Ave, Theoretical Hydraulic Detenti Treatment Weakly Sampling Routine free Cl2	юп, ш.	Raw	Cl2/CgA/Pfl/TWR Treated	
Ave. Theoretical Hydraulic Detenti Treatment. Weekly Sampling Routine free Cl2 total Cl2	юп, ш.	Raw	Cl2/CgA/Pflt/TWR Treated ? ?	
Ave, Theoretical Hydraulic Detenti Treatment Weakly Sampling Routine free Cl2	юп, ш [.]	Raw	Cl2/CgA/Pfl/TWR Treated	<u>-</u> <u>-</u> <u></u>
Ave. Theoretical Hydraulic Detenti Treatment <u>Wesklv Sampling Routing</u> free Cl2 total Cl2 total Cl2 total Cl2	юп, ш [.]	Rew	Cl2/CgA/Pflt/TWR Treated ? ?	
Ave. Theoretical Hydraulic Detenti Treatment <u>Weeklv Sampling Routine</u> free Cl2 total Cl2 turbidity lemperature		Rgw	CL2/CgA/Pfil/TWR Treated 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment. <u>Weekly Sampling Routine</u> free C12 total C12 turbidity temperature pH	ion, in.	Rew	Cl2/CgA/Pflt/TWR Treated 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routing free C12 total C12 turbidity temperature pH Floride	ion, m.	Rgw	CL2/CgA/Pfil/TWR Treated 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routing free Cl2 total Cl2 turbidky temperature pH Floride Color	ion, m.	Rgw	CL2/CgA/Pfil/TWR Treated 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routing free C12 total C12 turbidity temperature pH Floride	ion, m.	Raw	CL2/CgA/Pfil/TWR Treated 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routing free Cl2 total Cl2 turbidky temperature pH Floride Color		Raw	CL2/CgA/Pfil/TWR Treated 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 turbidity temperature pH Floride Color Hardness Mn	ion, m.	Rgw	CL2/CRAPEIUTWR Treated 7 7 7 7 7 7 7 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment Weakly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe	ion, m.	Raw	CI2/CgA/Pfil/TWR Treated ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ?	
Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 turbidity temperature pH Floride Color Hardness Mn	ion, m.	Ræw	CL2/CRAPEIUTWR Treated 7 7 7 7 7 7 7 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment <u>Weekly Sampling Routine</u> free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkalinity		Rew	CI2/CgA/Pfil/TWR Treated ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ?	
Ave. Theoretical Hydraulic Detenti Treatment. Weakly Sampling Routing free Cl2 total Cl2 turbidky temperature pH Floride Color Hardness Mn Fe Alkalinity Microbial	per month	Raw	CI2/CgA/Pfil/TWR Treated ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ?	
Ave. Theoretical Hydraulic Detenti Treatment. Weekly Sampling Routine free C12 total C12 turbidky temperature pH Floride Color Hardness Mn Fe Akalinity Microbial Chemical Dosing and Operating St	per month	Ræw	Cl2/CgA/Pfl/TWR Treated 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 4	
Ave. Theoretical Hydraulic Detenti Treatment. Weakly Sampling Routing free Cl2 total Cl2 turbidky temperature pH Floride Color Hardness Mn Fe Alkalinity Microbial	per month rategy current	Raw	CI2/CgA/Pfil/TWR Treated ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ?	
Ave. Theoretical Hydraulic Detenti Treatment. Weekly Sampling Routine free C12 total C12 turbidky temperature pH Floride Color Hardness Mn Fe Akalinity Microbial Chemical Dosing and Operating St	per month Tategy current low	Ræw	C12/CPA/Pfil/TWR Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment. Weekly Sampling Routine free C12 total C12 turbidky temperature pH Floride Color Hardness Mn Fe Akalinity Microbial Chemical Dosing and Operating St	per month rategy current	Ræw	C12/CRAPEIUTWR Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment. Weekly Sampling Routine free C12 total C12 turbidky temperature pH Floride Color Hardness Mn Fe Akalinity Microbial Chemical Dosing and Operating St	per month Tategy current low	Raw	C12/CPA/Pfil/TWR Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment. Weekly Sampling Routine free C12 total C12 turbidky temperature pH Floride Color Hardness Mn Fe Akalinity Microbial Chemical Dosing and Operating St	per month rategy current low high type	Ræw	C12/CRAPEN/TWR Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment Weakly Sampling Routine free CI2 total CI2 turbidky temperature pH Flotide Color Hardness Mn Fre Alkalinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coggulants	per month rategy current low high type adjustment	Raw	C12/CRAPEIUTWR Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment. Weekly Sampling Routine free C12 total C12 turbidky temperature pH Floride Color Hardness Mn Fe Akalinity Microbial Chemical Dosing and Operating St	per month Trategy current low high type adjustment current	Ræw	Cl2/CgA/Pfl/TWR Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment Weakly Sampling Routine free CI2 total CI2 turbidky temperature pH Flotide Color Hardness Mn Fre Alkalinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coggulants	per month ratery current low high type adjustment current low	Raw	CI2/CRAPED/TWR Treated 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment Weakly Sampling Routine free CI2 total CI2 turbidky temperature pH Flotide Color Hardness Mn Fre Alkalinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coggulants	per month ratesy current low high type adjustment current low high	Ræw	Cl2/CgA/Pfl/TWR Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment Weakly Sampling Routine free CI2 total CI2 turbidky temperature pH Flotide Color Hardness Mn Fre Alkalinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coggulants	per month Interv current low high type sdjustment current low high type	Rgw	Cl2/CgA/Pfl/TWR Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment Weakly Sampling Routine free CI2 total CI2 turbidky temperature pH Flotide Color Hardness Mn Fre Alkalinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coggulants	per month ratesy current low high type adjustment current low high	Ræw	Cl2/CgA/Pfl/TWR Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment Weakly Sampling Routine free CI2 total CI2 turbidky temperature pH Flotide Color Hardness Mn Fre Alkalinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coggulants	per month Interv current low high type sdjustment current low high type	Rgw	Cl2/CgA/Pfl/TWR Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment Weakly Sampling Routine free Cl2 total Cl2 turbidky temperature pH Floride Color Hardness Mn Fe Alkalinity <u>Microbial</u> <u>Coegulants</u> Polymer	per month rategy current low high type adjustment current low high type sdjustment	Raw	Cl2/CgA/Pfl/TWR Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment Weakly Sampling Routine free Cl2 total Cl2 turbidky temperature pH Floride Color Hardness Mn Fe Alkalinity <u>Microbial</u> <u>Coegulants</u> Polymer	per month Intern current low high type adjustment current low high type adjustment current low	Ræw	Cl2/CgA/Pfl/TWR Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment Weakly Sampling Routine free Cl2 total Cl2 turbidky temperature pH Floride Color Hardness Mn Fe Alkalinity <u>Microbial</u> <u>Coegulants</u> Polymer	per month ratesy current low high type adjustment current low high type adjustment current low high	Ræw	Cl2/CgA/Pfl/TWR Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment. Weakly Sampling Routine free C12 total C12 turbidky temperature pH Flotide Color Hardness Mn Fe Alkalinity Microbial Chemical Dosing and Operating St Cosgnitents Polymer Soda Ash	per month research current low high djustment current low high type adjustment current low high high shigh shigh high adjustment	Ræw	Cl2/CgA/Pfl/TWR Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment Weakly Sampling Routine free Cl2 total Cl2 turbidky temperature pH Floride Color Hardness Mn Fe Alkalinity <u>Microbial</u> <u>Coegulants</u> Polymer	per month prategy current low high type adjustment current low high type adjustment current low high adjustment current current	Raw	Cl2/CgA/Pfl/TWR Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment. Weakly Sampling Routine free C12 total C12 turbidky temperature pH Flotide Color Hardness Mn Fe Alkalinity Microbial Chemical Dosing and Operating St Cosgnitents Polymer Soda Ash	per month <u>retery</u> current low high type adjustment current low high high high high high bigh adjustment current low bigh bigh low high low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh bigh low bigh low bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh	Ræw	Cl2/CgA/Pfl/TWR Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment. Weakly Sampling Routine free C12 total C12 turbidky temperature pH Flotide Color Hardness Mn Fe Alkalinity Microbial Chemical Dosing and Operating St Cosgnitents Polymer Soda Ash	per month prategy current low high type adjustment current low high type adjustment current low high adjustment current current	Rgw	Cl2/CgA/Pfl/TWR Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment. Weakly Sampling Routine free C12 total C12 turbidky temperature pH Flotide Color Hardness Mn Fe Alkalinity Microbial Chemical Dosing and Operating St Cosgnitents Polymer Soda Ash	per month <u>retesy</u> current low bigh type adjustment current low high type adjustment current low high high bigh high high bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh bigh big	Ræw	C12/CgA/Pfl/TWR Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment. Weakly Sampling Routine free C12 total C12 turbidky temperature pH Flotide Color Hardness Mn Fe Alkalinity Microbial Chemical Dosing and Operating St Cosgnitents Polymer Soda Ash	per month prategy current low high type adjustment current low high sdjustment current low high adjustment current low high type sdjustment current low	Rgw	C12/CGA/Pfl/TWR Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment. Weakly Sampling Routine free CI2 total CI2 turbidky temperature pH Floride Color Hardness Mn Fe Alkalinity Microbial Chemical Dosing and Operating St Coggilards Polymer Soda Ash Disinfection	per month <u>retery</u> current low high type adjustment current low high type adjustment current low high type adjustment current low	Ræw	C12/CgA/Pfl/TWR Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment. Weakly Sampling Routine free C12 total C12 turbidky temperature pH Flotide Color Hardness Mn Fe Alkalinity Microbial Chemical Dosing and Operating St Cosgnitents Polymer Soda Ash	per month ratesy current low high type adjustment current low high type adjustment current low high high djustment current low high current current low	Rgw	C12/CGA/Pfl/TWR Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment. Weakly Sampling Routine free CI2 total CI2 turbidky temperature pH Floride Color Hardness Mn Fe Alkalinity Microbial Chemical Dosing and Operating St Coggilards Polymer Soda Ash Disinfection	per month prategy current low high type adjustment current low high adjustment current low high adjustment current low high type adjustment current low	Ræw	C12/CGA/Pfl/TWR Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment. Weakly Sampling Routine free CI2 total CI2 turbidky temperature pH Floride Color Hardness Mn Fe Alkalinity Microbial Chemical Dosing and Operating St Coggilards Polymer Soda Ash Disinfection	per month ratesy current low high type adjustment current low high type adjustment current low high high djustment current low high current current low	Rgw	C12/CGA/Pfl/TWR Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment. Weakly Sampling Routine free CI2 total CI2 turbidky temperature pH Floride Color Hardness Mn Fe Alkalinity Microbial Chemical Dosing and Operating St Coggilards Polymer Soda Ash Disinfection	per month reserv current low high type adjustment current low high type adjustment current low high type adjustment current low high type low high type adjustment current low high type low high type adjustment current low high type low high type adjustment current low high type low high type adjustment current low high type low high type adjustment current low high type low high type adjustment current low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high high low high low high low high low high low high low high low h	Ræw	C12/CGA/Pfl/TWR Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment. Weakly Sampling Routine free CI2 total CI2 turbidky temperature pH Floride Color Hardness Mn Fe Alkalinity Microbial Chemical Dosing and Operating St Coggilards Polymer Soda Ash Disinfection	per month ratesy current low high type adjustment current low high typt adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	Raw	C12/CGA/Pfl/TWR Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment Weakly Sampling Routine free Cl2 total Cl2 turbidky temperature pH Floride Color Hardness Mn Fe Alkalinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coagulants Polymer Soda Ash Disinfection T & O control	per month pategy current low high type adjustment current low high adjustment current low high djustment current low high type adjustment current low high type adjustment current low high type adjustment current low	Ræw	C12/CGA/Pfl/TWR Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment. Weakly Sampling Routine free CI2 total CI2 turbidky temperature pH Floride Color Hardness Mn Fe Alkalinity Microbial Chemical Dosing and Operating St Coggilards Polymer Soda Ash Disinfection	per month research current low high type adjustment current low high type adjustment current low high high type adjustment current low high type adjustment current low high type adjustment current low	Ræw	C12/CGA/Pfl/TWR Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment Weakly Sampling Routine free Cl2 total Cl2 turbidky temperature pH Floride Color Hardness Mn Fe Alkalinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coagulants Polymer Soda Ash Disinfection T & O control	per month Trategy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	Rgw	C12/CGA/Pfl/TWR Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment Weakly Sampling Routine free Cl2 total Cl2 turbidky temperature pH Floride Color Hardness Mn Fe Alkalinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coagulants Polymer Soda Ash Disinfection T & O control	per month <u>retery</u> current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type	Ræw	C12/CGA/Pfl/TWR Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Ave. Theoretical Hydraulic Detenti Treatment Weakly Sampling Routine free Cl2 total Cl2 turbidky temperature pH Floride Color Hardness Mn Fe Alkalinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coagulants Polymer Soda Ash Disinfection T & O control	per month Trategy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	Rgw	C12/CGA/Pfl/TWR Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	

			GRANDE PRAIRI 15-Jun-94	5
Type of Sample		Raw	Treated	Distributed
Temperature	deg C	13.3	14.1	13.8
pH		7.3	7.15	7
Conductivity	Mirco oluma/c		250	280
Turbidity	NTU	46	2.22	1.58
Total Chlorine	ாஜ/L	NA	0.94	0.16
Free Chlorine	mg/L	NA	0.84	0.09
Color	TCU	120	0	0
Ammonia	mg/L	0.033	·	-
Odour Type		none	chlorine	chlorine
Odour Intensity	out of 3	0	2	1
Flavour Profile	out of 10	NA	5	8
Flavour Comment			chlorine	
THMs	ug/L	-	-	-
Total Coliforms	cfu/100ml	-	<1	<1
Fecal Coliforms	cfu/100ml	-	<1	<1
Heterotropic Plate Count (48 hr)	cfu/1 mL	85	2	2
Heterotropic Plate Count (7 days)	cfu/1 mL	656	0	1550
Klebuiella	cfu/100ml	<1	<1	<1
Fecal Streptococcus	cfu/100ml	18	<1	<1
Molds	cfu/1 mL	40	<1	<1
Yeast	cfu/1 mL	103	<1	<1
Iron Reducing Bacteria	org/i mL	24	<0.3	<0.3
Sulfate Reducing Bacteria	org/1 mL	4	<0.3	<0.3
Sulfite Reducing Bacteria	org/1 mL	46	<0.3	<0.3
Thiosulfate Reducing Bacteria	org/1 mL	>110	<0.3	>110
Iron Oxidizing Bacteria	ong/1 mL	>110	<0.3	<0.3
	- B - stars		1	
Plant Operations				L
Person hours to operate plant per v	week		288	
F F F F			both water and was	ewater plants
T & O problems		Ì	Yes	
i ii o picciai			chlorine	
Hardness	high		200	
	low		110	
	104		higher in the winter	
Recycel Filter Backwaah			2	
Recject Pater Datawaan			1	
Distribution system flushing progra			2	
Canada Standing Links				
Storage	<b>m</b> 3		?	
Average Daily Production	m3		?	
Ave. Theoretical Hydrauhic Detenti	_		?	
Treatment				
Weekly Sampling Routine		Raw	Treated	
free Cl2		ł	84	
total Cl2		1	42	
turbidity			42	
temperature			-	
		1	42	
рН				
рН			42	
pH Floride			42 7	
pH Floride Color				
pH Floride Color Hardness			7	
pH Floride Color Hardness Mn			7	
pH Floride Color Hardness Ma Fe			7	
pH Floride Color Hardness Ma Fe			7 7 -	
pH Floride Color Hardness Ma Fe Alkabiniry	per month		7 7 - 7 7	
pří Floride Color Hardness Ma Fe Alkalimiry Microbial	per month		7 7 -	
pH Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Doning and Operating, St	rategy		7 7 7 7 32	
pH Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Doning and Operating, St			7 7 - 7 7	
pH Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Doning and Operating, St	rategy current low		7 7 	
pH Floride Color Hardness Ma Fe Alkalimiry <u>Microbial</u> <u>Chemical Doxing and Operating St</u> Cogniants	rategy current low high		7 7 7 32 65 10	
pH Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Doning and Operating, St	rategy current low high type		7 7 7 7 32 65 10 100 alum	
pH Floride Color Hardness Ma Fe Alkalimity <u>Microbial</u> <u>Chemical Doxing and Operating St</u> Cogniants	current current low high type adjustment		7 7 7 32 65 10 100 alum based on turbidity	
pH Floride Color Hardness Ma Fe Alkalimity <u>Microbial</u> <u>Chemical Doxing and Operating St</u> Cogniants	current low high type adjustment current		7 7 7 7 32 65 10 100 alum based on burbidity 0.2	
pH Floride Color Hardness Ma Fe Alkalimity <u>Microbial</u> <u>Chemical Doxing and Operating St</u> Cogniants	retegy current low high type adjustment current low		7 7 7 7 32 65 10 100 alum based on turbidity 0.2 0.1	
pH Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Doning and Operating, St	retegy current low high type adjustment current low high		7 7 7 32 65 10 100 alum based on turbidity 0.2 0.1 0.3	
pH Floride Color Hardness Ma Fe Alkalimity <u>Microbial</u> <u>Chemical Doxing and Operating St</u> Cogniants	current low high type adjustment current low high type		7 7 7 32 65 10 100 alum based on turbidity 0.2 0.1 0.3 7	
pH Floride Color Hardness Ma Fa Alkalmiry <u>Microbial</u> <u>Chemical Doxing and Operating St</u> <u>Coegulants</u> Polymer	current low high type adjustment current low high type adjustment		7 7 7 32 65 10 100 alum based on burbidiry 0.2 0.1 0.3 ?	
pH Floride Color Hardness Ma Fa Alkalmiry <u>Microbial</u> <u>Chemical Doxing and Operating St</u> <u>Coegulants</u> Polymer	ntery current low high dype adjustment current low high current type adjustment current		7 7 7 32 65 10 100 alum based on turbidity 0.2 0.1 0.3 7 7	
pH Floride Color Hardness Ma Fa Alkalmiry <u>Microbial</u> <u>Chemical Doxing and Operating St</u> <u>Coegulants</u> Polymer	ntery current low high type adjustment current low high type adjustment current kow		7 7 7 32 65 10 100 alum based on turbidity 0.2 0.1 0.3 7 7 7	
pH Floride Color Hardness Ma Fe Alkalimity <u>Microbial</u> <u>Chemical Doxing and Operating St</u> Cogniants	ntery current low high type adjustment low high adjustment current low high bigh		7 7 7 32 65 10 100 alum based on burbidiry 0.2 0.1 0.3 7 7 7 7	
pH Floride Color Hardness Ma Fe Alkalinity <u>Microbial</u> <u>Chemical Doning and Operating St</u> Coggilants Polymer Soda Ash	ntegy current low high type adjustment low high sighustment current low high adjustment adjustment		7 7 7 32 65 10 100 alum based on turbidity 0.2 0.1 0.3 7 7 7 7 7	
pH Floride Color Hardness Ma Fa Alkalmiry <u>Microbial</u> <u>Chemical Doxing and Operating St</u> <u>Coegulants</u> Polymer	ntery current low high type adjustment current low high type adjustment current low high adjustment current		7 7 7 32 65 10 00 alum based on turbidity 0.2 0.1 0.3 7 7 7 7 7 2 1	
pH Floride Color Hardness Ma Fe Alkalinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coegniants Polymer Soda Ash	ntery current low high type adjustment current low high adjustment current low high adjustment current low bagh tow high bagh adjustment current low		7 7 7 32 65 10 100 alum based on burbidiry 0.2 0.1 0.3 7 7 7 7 7 7 2.1 1.3	
pH Floride Color Hardness Ma Fe Alkalinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coegniants Polymer Soda Ash	ntery current low high type adjustment eurent low high adjustment current low high adjustment current low		7 7 7 32 65 10 00 alum based on turbidity 0.2 0.1 0.3 7 7 7 2 1 1.3 3.2	
pH Floride Color Hardness Ma Fe Alkalinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coegniants Polymer Soda Ash	ntery current low high type adjustment current low high type adjustment current low high high high type type		7 7 7 32 65 10 100 alum based on turbidity 0.2 0.1 0.3 7 7 7 7 7 7 2.1 1.3 3.2 C12 gas	
pH Floride Color Hardness Mn Fe Alkalinity <u>Microbial</u> <u>Chemical Doxing and Operating St</u> <u>Cosgulants</u> Polymer Soda Ash Disinfection	ntery current low high type adjustment current low high adjustment current low high type adjustment current low high type adjustment		7 7 7 7 32 65 10 100 alum based on burbidity 0.2 0.1 0.3 7 7 7 7 2.1 1.3 3.2 Cl2 gas based on target resid	ual of 0.85 mg/L
pH Floride Color Hardness Ma Fe Alkalinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coegniants Polymer Soda Ash	ntery current low high type adjustment eurent low high adjustment current low high adjustment current low high adjustment current low		7 7 7 32 65 10 100 alum based on turbidity 0.2 0.1 0.3 7 7 7 2 1 1.3 3.2 7 2 2 1.3 3.2 7 2 2 2 2 2 3.2 7 2 2 2 2 2 3.2 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	ual of 0.85 mg/L
pH Floride Color Hardness Mn Fe Alkalinity <u>Microbial</u> <u>Chemical Doxing and Operating St</u> <u>Cosgulants</u> Polymer Soda Ash Disinfection	ntexy current low high type adjustment current low high adjustment current low high adjustment current low high type adjustment current iow		7 7 7 32 65 10 100 alum based on turbidity 0.2 0.1 0.3 7 7 7 7 2 1 3.2 7 7 2 2.1 1.3 3.2 7 7 2 2 5 2 5 2 2 2 2 2 2 2 2 2 2 2 2	ual of 0.85 mg/L
pH Floride Color Hardness Mn Fe Alkalinity <u>Microbial</u> <u>Chemical Doxing and Operating St</u> <u>Cosgulants</u> Polymer Soda Ash Disinfection	ntery current low high type adjustment eurent low high adjustment current low high adjustment current low high adjustment current low		7 7 7 7 32 65 10 100 alum based on burbidiry 0.2 0.1 0.3 7 7 7 2.1 1.3 3.2 Cl2 gas based on target resid ? ?	ual of 0.85 mg/L
pH Floride Color Hardness Mn Fe Alkalinity <u>Microbial</u> <u>Chemical Doxing and Operating St</u> <u>Cosgulants</u> Polymer Soda Ash Disinfection	ntexy current low high type adjustment current low high adjustment current low high adjustment current low high type adjustment current iow		7 7 7 32 65 10 100 alum based on turbidity 0.2 0.1 0.3 7 7 7 7 2 1 3.2 7 7 2 2.1 1.3 3.2 7 7 2 2 5 2 5 2 2 2 2 2 2 2 2 2 2 2 2	ual of 0.85 mg/L
pH Floride Color Hardness Ma Fe Alkalimity <u>Microbial</u> <u>Chemical Doxing and Operating St</u> <u>Congulants</u> Polymer Soda Ash Disinfection	ntery current low high type adjustment current low high djustment current low high type adjustment current low high type adjustment current low		7 7 7 7 32 65 10 100 alum based on burbidiry 0.2 0.1 0.3 7 7 7 2.1 1.3 3.2 Cl2 gas based on target resid ? ?	ual of 0.85 mg/L
pH Floride Color Hardness Ma Fe Alkalimity <u>Microbial</u> <u>Chemical Doxing and Operating St</u> <u>Congulants</u> Polymer Soda Ash Disinfection	teresy current low high type adjustment eurent low high adjustment current low high adjustment current low high type adjustment current low high type		7 7 7 32 65 10 100 alum based on turbidity 0.2 0.1 0.3 7 7 2 1.3 3.2 7 2 2 1.3 3.2 7 7 7 7 7 7	ual of 0.85 mg/L
pH Floride Color Hardness Ma Fe Alkalimity <u>Microbial</u> <u>Chemical Doxing and Operating St</u> <u>Congulants</u> Polymer Soda Ash Disinfection	ntery current low high type adjustment current low high adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low		7 7 7 32 65 10 100 alum based on turbidity 0.2 0.1 0.3 7 7 7 2 2.1 1.3 3.2 C12 gas based on target resid ? 7 7	ual of 0.85 mg/L
pH Floride Color Hardness Ma Fe Alkalimity <u>Microbial</u> <u>Chemical Doxing and Operating St</u> <u>Congulants</u> Polymer Soda Ash Disinfection	ntery current low high type adjustment current low high adjustment current low high type adjustment current low high type adjustment current current low		7 7 7 7 32 65 10 100 alum based on burbidiry 0.2 0.1 0.3 7 7 2.1 1.3 3.2 Cl2 gas based on target resid ? 7 7 7	ual of 0.85 mg/L
pH Floride Color Hardness Mn Fe Alkalinity <u>Microbial</u> <u>Chemical Doxing and Operating St</u> <u>Cosgulants</u> Polymer Soda Ash Disinfection	teresy current low high type adjustment eurent low high adjustment current low high adjustment current low high type adjustment low high low		7 7 7 32 65 10 100 alum based on turbidity 0.2 0.1 0.3 7 7 7 7 2.1 1.3 3.2 Cl2 gas based on target resid 7 7 7 7 7 7	ual of 0.85 mg/L

			GRIMSHAW	
Type of Sample		Raw	20-Jul-94 Treated	Distributed
Temperature	deg C			1- Marin and a
	unge	8	7.8	7.8
pH Conductivity	Miro ohms/c	670	7.8	680
Turbidity	NTU	0.1	0.09	0.17
Total Chlorine	mg/L	NA	0.26	0.28
Free Chlorine	mg/L	NA	0.17	0.15
Color	TCU	0	0	2
Ammonia	mg/L	-	-	
Odour Type	-		chemical	chemical
Odour Intensity	out of 3	<b>.</b>	0.5	0.5
Flavour Profile	out of 10	NA	6.5	6.5
Flavour Comment	0410110		0.5	0.5
Playour Comment				
nim va. 4 -	-			
THMs	ug/L	-	47	42
Total Coliforms	cfu/100ml	<1	<1	<1
Fecal Coliforms	cfu/100ml	<1	<1	<1
Heterotropic Plate Count (48 hr)	cfu/1 mL	1	<1	12
Heterotropic Plate Count (7 days)	cfu/1 mL	52	33	61
Klebniella	cfu/100ml	<1	<1	<1
Fecal Streptococcus	cfu/100ml	<1	<1	<1
Molds	cfu/1 mL	<1	0	-
Yeast	cfu/1 mL	0	1	~
Iron Reducing Bacteria	org/1 mL	0.4	0.9	2
Sulfate Reducing Bacteria	org/1 mL	<0.3	0.4	0.9
		<0.3	<0.3	<0.3
Sulfite Reducing Bacteria	org/1 mL			
Thiomliste Reducing Bacteria	org/1 mL	0.7	>110	0.4
Iron Oxidizing Bacteria	org/l mL	<0.3	<0.3	<0.3
Plant Operations Person hours to operate plant per w	k		14	
	· •••#		14	
T & O problems		1	yes	
			chlorine	
Hardness	high		-	
	low	1	-	
		1	constant	
Remod Filter Declasses		Į		
Recycel Filter Backwash		1	no	
Distribution system flushing progra	m.	1	yes	
			-	
Storage	<b>m</b> 3		5773	
Average Daily Production	m3		996	
Ave. Theoretical Hydraulic Detention	on, hr.		139.1	
_				
Treament			Fhu/Cl2/TWR	
Weekly Sampling Routine		Raw	Treated	
free Cl2			7	
total Cl2			-	
turbidity			-	
Lemperature			-	
pH			7	
Floride			7	
Color			-	
			-	
			-	
Hardness				
Hardness Ma			_	
Hardness Mn Fe			-	
Hardness Mn Fe			-	
Hardness Mg Fe Alkalinity			-	
Hardness Mn Fe Alkaliniry Microbial	per month		4	
Hardness Ma Fe Alkalinity Microbial Chemical Dosing and Operating Str	Megy		4	
Hardness Mn Fe Alkaliniry Microbial	current			
Hardness Ma Fe Alkalinity Microbial Chemical Dosing, and Operating Str	utegy current low			
Hardness Ma Fe Alkalinity Microbial Chemical Dosing, and Operating Str	current			
Hardness Ma Fe Alkalinity Microbial Chemical Dosing, and Operating Str	tegy current low high		- - - - -	
Hardness Ma Fe Alkalinity Microbial Chemical Dosing, and Operating Str	niegy current low high type		- - 4	
Hardness Ma Fe Alkalimity <u>Microbial</u> <u>Chemical Dosing and Operating Str</u> Coggulants	current low high type adjustment		4	
Hardness Ma Fe Alkalimity <u>Microbial</u> <u>Chemical Dosing and Operating Str</u> Coggulants	tegy current low high type adjustment current			
Hardness Ma Fe Alkalinity Microbial Chemical Dosing, and Operating Str	ntegy current low high type adjustment current low			
Hardness Ma Fe Alkalimity <u>Microbial</u> <u>Chemical Dosing and Operating Str</u> Coggulants	stery current low high type adjustment current low high		- - - - - - - - - - -	
Hardness Ma Fe Alkalimity <u>Microbial</u> <u>Chemical Dosing and Operating Str</u> Coggulants	ntegy current low high type adjustment current low			
Hardness Ma Fe Alkalimity <u>Microbial</u> <u>Chemical Dosing and Operating Str</u> Coggulants	stery current low high type adjustment current low high			
Hardness Ma Fe Alltalimity <u>Microbial</u> <u>Chemical Posing and Operating Str</u> Coagulants Polymer	tery current low high type adjustment current low high type			
Hardness Ma Fe Alltalimity <u>Microbial</u> <u>Chemical Posing and Operating Str</u> Coagulants Polymer	tegy current low high type adjustment current low high type adjustment current			
Hardness Ma Fe Alltalimity <u>Microbial</u> <u>Chemical Posing and Operating Str</u> Coagulants Polymer	tery current low high type adjustment low high type adjustment current low			
Hardness Ma Fe Alltalimity <u>Microbial</u> <u>Chemical Posing and Operating Str</u> Coagulants Polymer	tegy current low high high type adjustment low high type adjustment current low high			
Hardness Mn Fe Alkalimity <u>Microbial</u> <u>Chemical Dosing and Operating Str</u> Coggulants Polymer Soda Ash	tery current low high sdjustment current low high sdjustment current low high adjustment			
Hardness Mn Fe Alkalimity <u>Microbial</u> <u>Chemical Dosing and Operating Str</u> Coggulants Polymer Soda Ash	tegy current low high high type adjustment low high type adjustment current low high			
Hardness Mn Fe Alkalimity <u>Microbial</u> <u>Chemical Dosing and Operating Str</u> Coggulants Polymer Soda Ash	tery current low high sdjustment current low high sdjustment current low high adjustment			
Hardness Mn Fe Alkalimity <u>Microbial</u> <u>Chemical Dosing and Operating Str</u> Coggulants Polymer Soda Ash	tery current low high type adjustment current low high adjustment current low high adjustment current low		- - - - - - - - - - - - - - - - - - -	
Hardness Mn Fe Alkalimity <u>Microbial</u> <u>Chemical Dosing and Operating Str</u> Coggulants Polymer Soda Ash	tesy current low high sdjustment current low high adjustment current low high adjustment current low high bigh bigh			
Hardness Mn Fe Alkalimity <u>Microbial</u> <u>Chemical Dosing and Operating Str</u> Coggulants Polymer Soda Ash	tery current low high type adjustment current low high type adjustment current low high high type dijustment current low high type		- - - - - - - - - - - - - - - - - - -	
Hardness Ma Fe Alkalimity <u>Microbial</u> <u>Chemical Dosing and Operating Str</u> Congulants Polymer Soda Ash Disinfection	tesy current low high type adjustment low high dustment current low high adjustment current low high adjustment type adjustment			.3 mg/L
Hardness Ma Fe Alkalimity <u>Microbial</u> <u>Chemical Dosing and Operating Str</u> Congulants Polymer Soda Ash Disinfection	tery current low high type adjustment current low high type adjustment current low high high type dijustment current low high type		- - - - - - - - - - - - - - - - - - -	 З ту/L
Hardness Mn Fe Alkalimity <u>Microbial</u> <u>Chemical Dosing and Operating Sr</u> Congrelates Polymer Soda Ash Disinfection	tesy current low high type adjustment low high dustment current low high adjustment current low high adjustment type adjustment		- - - - - - - - - - - - - - - - - - -	.3 ту/L
Hardness Ma Fe Alkalimity <u>Microbial</u> <u>Chemical Posing and Operating Str</u> Coagulants Polymer Soda Ash Disinfection	tesy current low high type adjustment current low high type adjustment current low high type adjustment current low bigh type adjustment current low		- - - - - - - - - - - - - - - - - - -	.3 тg/L
Hardness Ma Fe Alkalimity <u>Microbial</u> <u>Complants</u> Congulants Polymer Soda Ash Disinfection T & O control	tesy current low high type adjustment current low high adjustment current low high adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low		- - - - - - - - - - - - - - - - - - -	
Hardness Mn Fe Alkalimity <u>Microbial</u> <u>Chemical Dosing and Operating Str</u> Coagulants Polymer Soda Ash Disinfection	tesy current low high sdjustment current low high adjustment current low high adjustment current low high adjustment current low high type adjustment current low high type		- - - - - - - - - - - - - - - - - - -	.3 тул.
Hardness Ma Fe Alkalimity <u>Microbial</u> <u>Chemical Posing and Operating Str</u> Coagulants Polymer Polymer Soda Ash Disinfection	stery current iow high type adjustment current low high adjustment current low high adjustment current low high type adjustment current low high type adjustment current low		- - - - - - - - - - - - - - - - - - -	. 3 тg/L
Hardness Ma Fe Alkalimity <u>Microbial</u> <u>Chemical Posing and Operating Str</u> Coagulants Polymer Polymer Soda Ash Disinfection	tesy current low high sdjustment current low high adjustment current low high adjustment current low high adjustment current low high type adjustment current low high type		- - - - - - - - - - - - - - - - - - -	.3 тg/L
Hardness Ma Fe Alkalimity <u>Microbial</u> <u>Chemical Posing and Operating Str</u> Coagulants Polymer Polymer Soda Ash Disinfection	stery current low high sdjustment current low high adjustment current low high adjustment current low high djustment current low high type adjustment current low high type adjustment current low			.3 тg/L
Hardness Ma Fe Alkalimity <u>Microbial</u> <u>Chemical Posing and Operating Str</u> Coagulants Polymer Polymer Soda Ash Disinfection	tesy current low high sdjustment ourrent low high adjustment current low high adjustment current low high adjustment current low high type adjustment current low high type adjustment current low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low low high low high low low high low low high low low low low low low low high low low low low low low low low low low			
Hardness Ma Fe Alkalimity <u>Microbial</u> <u>Chemical Posing and Operating Str</u> Coagulants Polymer Polymer Soda Ash Disinfection	stery current low high type adjustment current low high adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high high high high high high high hig		- - - - - - - - - - - - - - - - - - -	.3 mg/L
Hardness Ma Fe Alkalimity <u>Microbial</u> <u>Computed Dosing and Operating Str</u> Congalants Polymer Soda Aah Disinfection T & O control	tesy current low high sdjustment ourrent low high adjustment current low high adjustment current low high adjustment current low high type adjustment current low high type adjustment current low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low low high low high low low high low low high low low low low low low low high low low low low low low low low low low			2.3 mg/L

			HIGH LEVEL	· · · · · ·
Pres - 40			28-Jun-94	Im
Type of Sample		Raw	Treated	Dustributed
Temperature	deg C	18.4	19.2	17.5
pH		7.4	6.5	6.7
Conductivity	Miro ohma/c	770	700	750
Turbidity	NTU	3.4	0.22	0.47
Total Chlorine	mg/L	NA	0.9	0.43
Free Chlorine	mg/L	NA	0.43	0.14
Color	TCU	35	10	0
Ammonia	mg/L	0.055	0.13	0
	шgл			
Odour Type		fishy	fishy	fishy
Odour Intensity	out of 3	2.5	1.5	2
Flavour Profile	out of 10	NA	2	3
Flavour Comment				
			1	
THMs	ug/L		181	185
	-9-			
Total Coliforms	cfu/100ml	confi	<1	
Feed Coliforms			-	<1
	cfu/100ml	3	<1	<1
Heterotropic Plate Count (48 hr)	cfu/1 mL	38	1	2
Heterotropic Plate Count (7 days)		355	6	1158
Klebniella	cfu/100ml	confl	<1	<1
Fecal Streptococcus	cfu/100ml	<1	<1	<1
Molds	cfu/1 mL	1	<1	<1
Yeast	cfu/1 mL	10	<1	<1
Iron Reducing Bacteria			<0.3	
	org/1 mL	>110		>110
Sulfate Reducing Bacteria	org/1 mL	>110	0.7	0.9
Sulfite Reducing Bacteria	org/1 mL	>110	<0.3	0.7
Thiorulfate Reducing Bacteria	org/I mL	>110	15	>110
Iron Oxidizing Bacteria	org/1 mL	46	<0.3	110
			1	
Plant Operations		i		·
Person hours to operate plant per v	veck		60	
T & O problems			yes	
-			due to algae in the fa	11
Hardness	high		225	
I MA CADEAS	low		225	
	10 W			
			constant	
Recycel Filter Backwash			yes	
			recyceled back to RV	WR.
Distribution system flushing progr				
production system parameter broch				
Storage	m3		455	
Storage Average Daily Production	m3 m3		455 1189	
Storage	m3 m3			
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti	m3 m3		1189 9.2	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment	m3 m3	RWR/C	1189 9.2 :gA/Ch/pH/Rfil/Cl2/F	1u/TWR
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Rontine	m3 m3	RWR/C	1189 9.2 RA/Ch/pH/Rfti/Cl2/F Treated	lu/TWR
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12	m3 m3	RWR/C Raw	1189 9.2 RA/Ch/pH/Rftl/Cl2/F Treated 7	lu/TWR
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free Cl2 total Cl2	m3 m3	RWR/C	1189 9.2 Treated 7 7	<u>lu/TWR</u>
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12	m3 m3	RWR/C	1189 9.2 RA/Ch/pH/Rftl/Cl2/F Treated 7	luTWR
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 total C12 total C12	m3 m3	R WR/C Raw	1189 9.2 Treated 7 7	1uTWR
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity Lemperature	m3 m3	RWR/C	1189 9.2 <u>RA/Ch/pH/R fil/C12/F</u> Treated 7 7 7 7	<u>1w7WR</u>
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH	m3 m3	RWR/C Ranw	1189 9.2 <u>RA/Clr/pH/Rfit/Cl2/F</u> Treated 7 7 7 7 7	lwTWR
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 total C12 tempersaure pH Floride	m3 m3	RWR/C	1189 9.2 Treated 7 7 7 7 7 7 7 7 7 7 7	lu/TWR
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Samphing Routine free C12 total C12 total C12 turbidity temperature pH Florida Color	m3 m3	RWR/C	1189 9.2 <u>EA/Ch/pH/Rfb/C12/F</u> Treated 7 7 7 7 7 7 7 7 7 7 7	1wTWR
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turtridity temperature pH Florida Color Hardness	m3 m3	RWR/C Raw	1189 9.2 <u>EA/Ch/pH/Rfl/Cl2/F</u> Treated 7 7 7 7 7 7 7 7 7 1	<u>1uTWR</u>
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sympling Routine free C12 total C12 torbidity tempersaure pH Florids Color Hardness Mn	m3 m3	RWR/C	1189 9.2 <u>EA/Ch/pH/Rfb/C12/F</u> Treated 7 7 7 7 7 7 7 7 7 7 7	<u>lwTWR</u>
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Samobing Routine free C12 total C12 total C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe	m3 m3	RWR/C Ranw	1189 9.2 <u>EA/Ch/pH/Rfh/Cl2/F</u> Treated 7 7 7 7 7 7 7 7 7 1 8 somtimes -	luTWR
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sympling Routine free C12 total C12 torbidity tempersaure pH Florids Color Hardness Mn	m3 m3	RWR/C	1189 9.2 <u>EA/Ch/pH/Rfl/Cl2/F</u> Treated 7 7 7 7 7 7 7 7 7 1	<u>lw</u> TWR
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sympling Routine free CI2 total CI2 turbidity temperature pH Florids Color Hardness Mn Fe Alkalimity	m3 m3 on, hr.	RWR/C	1189 9.2 <u>EA/Ch/pH/Rfh/Cl2/F</u> Treated 7 7 7 7 7 7 7 7 7 1 8 somtimes -	<u>lwTWR</u>
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Samphing Routine free C12 total	m3 m3 on, hr.	R WR/C	1189 9.2 <u>EA/Ch/pH/Rfh/Cl2/F</u> Treated 7 7 7 7 7 7 7 7 7 1 8 somtimes -	1wTWR
Storrage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sempling Routine free C12 total C12 turbidity temperature pH Florida Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing, and Operating, St	m3 m3 on, hr.	RWR/C	1189 9.2 22/Ch/pH/Rfh/C12/F 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 1 8 somtimes 1 1	<u>lu</u> TWR
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Samphing Routine free C12 total	m3 m3 on, hr.	RWR/C	1189 9.2 3 <u>eA/Cla/pH/R.flu/Cl2/F</u> 7 7 7 7 7 7 7 1 5 8 5 1	lwTWR
Storrage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sempling Routine free C12 total C12 turbidity temperature pH Florida Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing, and Operating, St	m3 m3 on, hr.	R WR/C	1189 9.2 22/Ch/pH/Rfh/C12/F 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 1 8 somtimes 1 1	1wTWR
Storrage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sempling Routine free C12 total C12 turbidity temperature pH Florida Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing, and Operating, St	m3 m3 on, hr.	RWR/C	1189 9.2 <u>FA/Clr/pH/R.fk/Cl2/F</u> 7 7 7 7 7 7 7 1 1 5 5 0 1 1 1 1 260	lu/TWR
Storrage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sempling Routine free C12 total C12 turbidity temperature pH Florida Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing, and Operating, St	m3 m3 on, hr. per month metry current low high	R WR/C	1189 9.2 <u>EA/Ch/pH/Rfli/Cl2/F</u> Treated 7 7 7 7 7 7 7 7 7 7 1 somtimes - 1 1 260 200	lwTWR
Storrage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sempling Routine free C12 total C12 turbidity temperature pH Florida Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing, and Operating, St	m3 m3 on, hr.	RWR/C	1189 9.2 <u>gA/Clr/pH/Rflr/Cl2/F</u> Treated 7 7 7 7 7 7 1 5 5 5 7 1 1 5 5 5 1 1 1 2 60 200 260 260 260 260	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidisy temperature pH Floride Color Hardness Mn Fe Allcalinity Microbial Chemical Dosing and Operating St Coggilants	m3 m3 on, hr. per mosth metry current low bigh type adjustment	RWR/C	1189 9.2 <u>EA/Ch/pH/Rfh/C12/F</u> Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Storrage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sempling Routine free C12 total C12 turbidity temperature pH Florida Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing, and Operating, St	m3 m3 on, hr. per month Werey current low high type adjustment current	R.WR/C	1189 9.2 3 <u>eA/ClaybH/Rflu/Cl2/F</u> 7 7 7 7 7 7 1 1 5 5 1 1 2 60 200 200 200 200 200 200 200 200 20	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidisy temperature pH Floride Color Hardness Mn Fe Allcalinity Microbial Chemical Dosing and Operating St Coggilants	m3 m3 on, hr.	RWR/C	1189 9.2 <u>gA/Clr/pH/Rfk/Cl2/F</u> Treated 7 7 7 7 7 7 7 1 somtimes - 1 1 1 260 200 260 260 260 260 260 260 260 260	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidisy temperature pH Floride Color Hardness Mn Fe Allcalinity Microbial Chemical Dosing and Operating St Coggilants	m3 m3 on, hr. per month Tetray current low high type adjustment current low high high	R WR/C	1189 9.2 <u>EA/Ch/pH/Rfit/C12/F</u> Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidisy temperature pH Floride Color Hardness Mn Fe Allcalinity Microbial Chemical Dosing and Operating St Coggilants	m3 m3 on, hr.	RWR/C	1189 9.2 7 Treated 7 7 7 7 7 7 7 7 7 7 1 5 5 7 7 7 7 1 5 5 7 7 7 7	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Samphing Routine free C12 total	m3 m3 on, hr.	RWR/C	1189 9.2 2 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidisy temperature pH Floride Color Hardness Mn Fe Allcalinity Microbial Chemical Dosing and Operating St Coggilants	m3 m3 on, hr. per month Béry current low high type adjustment current low high type adjustment current	R.WR/C	1189 9.2 <u>SEA/Chr/pH/Rfit/C12/F</u> Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Samphing Routine free C12 total	m3 m3 on, br.	RWR/C	1189 9.2 32/Clr/pH/Rflr/Cl2/F 7 7 7 7 7 7 7 7 7 7 7 1 5 5 0 1 1 1 2 5 0 2 6 0 3 0 1 0 3 0 1 0 3 7 8 4 0 1 0 5 7 1 1 5 0 0 1 0 3 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Samphing Routine free C12 total	m3 m3 on, hr. per month <u>Béry</u> current low high type adjustment current low high type adjustment	R WR/C	1189 9.2 <u>EA/Ch/pH/Rfb/C12/F</u> Treated 7 7 7 7 7 7 7 7 7 7 1 somtimes - 1 1 260 200 260 200 260 abum adjusted with atum 150	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Samphing Routine free C12 total	m3 m3 on, br.	RWR/C	1189 9.2 32/Clr/pH/Rflr/Cl2/F 7 7 7 7 7 7 7 7 7 7 7 1 5 5 0 1 1 1 2 5 0 2 6 0 3 0 1 0 3 0 1 0 3 7 8 4 0 1 0 5 7 1 1 5 0 0 1 0 3 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Samphing Routine free C12 total	m3 m3 on, hr.	R WR/C	1189 9.2 <u>EA/Ch/pH/Rfb/C12/F</u> Treated 7 7 7 7 7 7 7 7 7 7 1 somtimes - 1 1 260 200 260 200 260 aduant et al. 1 1 1 250 260 200 260 200 260 3 200 260 3 200 260 200 260 3 200 260 200 260 200 260 200 260 26	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turtridity temperature pH Floride Color Hardness Mn Fe Allalimity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coggniants Polymer Soda Aah	m3 m3 on, hr. per month mercy current low high type adjustment current low high type adjustment current low high type adjustment current low	RWR/C	1189 9.2 32/Clr/pH/Rflr/Cl2/F Treated 7 7 7 7 7 7 7 1 5 5 5 5 6 200 200 260 200 260 200 260 200 260 200 260 200 260 200 260 200 260 200 260 210 210 210 210 210 210 210 210 210 21	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turtridity temperature pH Floride Color Hardness Mn Fe Allalimity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coggniants Polymer Soda Aah	m3 m3 on, hr. per month merev current low high type adjustment current low high type adjustment current low high type adjustment current low	R WR/C	1189 9.2 <u>EA/Ch/pH/Rfb/C12/F</u> Treated 7 7 7 7 7 7 7 7 7 1 somtimes - 1 1 260 200 260 200 260 200 260 200 260 3 3 3 4 4 4	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turtridity temperature pH Floride Color Hardness Mn Fe Allalimity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coggniants Polymer Soda Aah	m3 m3 m3 on, hr. per month effect current low high type adjustment current low high signstment current low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high high high low high high low high low high high high high high high high hig	R WR/C	1189 9.2 32/Cir/pH/Rfit/C12/F 7 7 7 7 7 7 7 7 7 1 5 5 0 1 1 2 6 2 6 0 2 0 0 2 0 0 2 6 0 2 0 0 2 6 0 2 0 0 2 6 0 2 0 0 2 6 0 2 0 0 2 6 0 2 0 0 2 6 0 2 0 0 2 6 0 2 0 0 2 6 0 2 0 0 2 6 0 2 0 0 2 6 0 2 0 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 0 2	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turtridity temperature pH Floride Color Hardness Mn Fe Allalimity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coggniants Polymer Soda Aah	m3 m3 m3 on, hr. per month mercy current low high type adjustment current low high sdjustment current low high sdjustment current low high sdjustment current low high sdjustment current low high sdjustment current low	RWR/C	1189 9.2 <u>eA/ChrypH/Rfk/CL2/F</u> Treated 7 7 7 7 7 7 7 1 somtimes - 1 1 1 260 200 260 260 260 260 260 260 260 260	minimizing color
Storrage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidisy temperature pH Floride Color Hardness Mn Fe Allcalinity Microbial Chemical Dosing and Operating St Congulants Polymer Soda Aah Disinfection	m3 m3 on, hr. per moath merry current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	R WR/C	1189 9.2 32/Cir/pH/Rfit/C12/F 7 7 7 7 7 7 7 7 7 1 5 5 0 1 1 2 6 2 6 0 2 0 0 2 0 0 2 6 0 2 0 0 2 6 0 2 0 0 2 6 0 2 0 0 2 6 0 2 0 0 2 6 0 2 0 0 2 6 0 2 0 0 2 6 0 2 0 0 2 6 0 2 0 0 2 6 0 2 0 0 2 6 0 2 0 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 6 0 2 0 2	minimizing color
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turtridity temperature pH Floride Color Hardness Mn Fe Allalimity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coggniants Polymer Soda Aah	m3 m3 m3 on, hr. per month mercy current low high type adjustment current low high sdjustment current low high sdjustment current low high sdjustment current low high sdjustment current low high sdjustment current low	R WR/C	1189 9.2 <u>eA/ChrypH/Rfk/CL2/F</u> Treated 7 7 7 7 7 7 7 1 somtimes - 1 1 1 260 200 260 260 260 260 260 260 260 260	minimizing color
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine fire C12 total C12 Instituty Lamperature pH Florida Color Hardness Mn Fe Allcalinity Microbial Chemical Dosing and Operating St Cosgolants Polymer Soda Aah Disinfection	m3 m3 on, hr. per moath merry current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	R WR/C	1189 9.2 <u>EA/Chr/pH/Rfb/C12/F</u> Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	minimizing color
Storrage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidisy temperature pH Floride Color Hardness Mn Fe Allcalinity Microbial Chemical Dosing and Operating St Congulants Polymer Soda Aah Disinfection	m3 m3 m3 on, hr. per month mercy current low high type adjustment current low high sdjustment current low high adjustment current low high sdjustment current low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low low high low high low low high low low high low low high low low high low low high low low high low low high low low high low low high low low high low low low high low low low high low low high low low low low low high low low low low low low high low low low low low low low low low low	R WR/C	1189 9.2 <u>eA/ChrypH/Rfk/CL2/F</u> Treated 7 7 7 7 7 7 1 somtimes - 1 1 1 260 200 260 260 260 260 260 260 260 260	minimizing color
Storrage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidisy temperature pH Floride Color Hardness Mn Fe Allcalinity Microbial Chemical Dosing and Operating St Congulants Polymer Soda Aah Disinfection	m3 m3 m3 on, hr. per moath merry current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type	Raw	1189 9.2 <u>EA/Chr/pH/Rfls/C12/F</u> Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	minimizing color
Storrage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidisy temperature pH Floride Color Hardness Mn Fe Allcalinity Microbial Chemical Dosing and Operating St Congulants Polymer Soda Aah Disinfection	m3 m3 m3 on, hr. per month mercy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type	Raw	1189 9.2 32/Clr/pH/Rflt/Cl2/F 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	minimizing color
Storrage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Samphing Routine free C12 total C12 tota	m3 m3 m3 con, hr. per month Tetery current low high type adjustment current low high type adjustment current low high bow high solutionent current low high solutionent current low high solutionent current low high solutionent current low high solutionent current low high solutionent current low high solutionent current low high solutionent current low high solutionent current low high solutionent current low high solutionent current low high solutionent current low high solutionent current low high solutionent current low high solutionent current low high solutionent current low high solutionent current low high solutionent current low high solutionent current low high solutionent current low high solutionent current low high type adjustment current low high type adjustment current low high type adjustment current low	Raw	1189 9.2 <u>pA/Cit/pH/Rfit/CI2/F</u> Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	minimizing color
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine fire C12 total C12 Instituty Lamperature pH Florida Color Hardness Mn Fe Allcalinity Microbial Chemical Dosing and Operating St Cosgolants Polymer Soda Aah Disinfection	m3 m3 m3 on, hr. per month Tetray current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type current low high type current low high type current low high type current low high type current low high type current low high type current low high type current low high type current low high type current low high type current low high type current low high type current current low high type current low high type current low high type current low high type current low high type current low high type current low current low high type current low high type current low high type current current low high type current low high type current current low high type current current low high type current low	Raw	1189 9.2 3 <u>eA/ClayH/Rflt/Cl2/F</u> 7 7 7 7 7 7 7 1 3 5 5 6 260 200 200 200 200 200 200 200 200 2	minimizing color
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sempling Routine free C12 Uotal C12 Intridity Lemperature pH Floride Color Hardness Min Fe Allalimity Microbial Chemical Dosing and Operating St Congulants Polymer Soda Ash Disinfection	m3 m3 m3 con, hr. per month Tetery current low high type adjustment current low high type adjustment current low high bow high solutionent current low high solutionent current low high solutionent current low high solutionent current low high solutionent current low high solutionent current low high solutionent current low high solutionent current low high solutionent current low high solutionent current low high solutionent current low high solutionent current low high solutionent current low high solutionent current low high solutionent current low high solutionent current low high solutionent current low high solutionent current low high solutionent current low high solutionent current low high solutionent current low high type adjustment current low high type adjustment current low high type adjustment current low	Raw	1189 9.2 <u>pA/Cit/pH/Rfit/CI2/F</u> Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	minimizing color
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sempling Routine free C12 Uotal C12 Intridity Lemperature pH Floride Color Hardness Min Fe Allalimity Microbial Chemical Dosing and Operating St Congulants Polymer Soda Ash Disinfection	m3 m3 m3 on, hr. per month Tetray current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type current low high type current low high type current low high type current low high type current low high type current low high type current low high type current low high type current low high type current low high type current low high type current low high type current current low high type current low high type current low high type current low high type current low high type current low high type current low current low high type current low high type current low high type current current low high type current low high type current current low high type current current low high type current low	Raw	1189 9.2 3 <u>eA/ClayH/Rflt/Cl2/F</u> 7 7 7 7 7 7 7 1 3 5 5 6 260 200 200 200 200 200 200 200 200 2	minimizing color
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sempling Routine free C12 Uotal C12 Intridity Lemperature pH Floride Color Hardness Min Fe Allalimity Microbial Chemical Dosing and Operating St Congulants Polymer Soda Ash Disinfection	m3 m3 on, br. per month metry current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	Raw	1189 9.2 <u>pA/Clr/pH/Rflr/Cl2/F</u> Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	minimizing color

			HIGH PRAIRIE	
Type of Sample		Raw	13-Jun-94	Distributed
	4	Raw	Treated	Distributed
Temperature	deg C	-	15	15.5
pH		6.85	6.55	6.65
Conductivity	Miro ohms/c	375	440	420
Turbidity	NTU	4.5	0.11	0.12
Total Chlorine	mg/L	NA	0.86	0.6
Free Chlorine	mg/L	NA.	0.69	0.37
Color	TCU	75	0	0
Ammonia	mg/L	0.01	•	-
Odour Type		?	chlorine	chlorine
Odour Intensity	out of 3	0.01	2	1
Flavour Profile	out of 10	NA	6	-
Flavour Comment				
THMs	ng/L	-	-	-
Total Coliforns	cfu/100ml	1	<1	<1
Fecal Coliforns	cfu/100ml	<1	<1	<1
Heterotropic Plate Count (48 hr)	cfo/l mL	65	1	0
Heterotropic Plate Count (7 days)				
Klebziella	cfu/100ml	<1	<l< td=""><td>&lt;1</td></l<>	<1
Fecal Streptococcus	cfu/100ml	3	<l< td=""><td>&lt;1</td></l<>	<1
Molds	cfu/1 mL	5	<1	<1
Yeast	cfu/l mL	60	<1	<1
Iron Reducing Bacteria	org/1 mL	0.3	<0.3	<0.3
Sulfate Reducing Bacteria	org/1 ml.	15	2	0.4
Sulfite Reducing Bacteria	org/1 mL	0.4	<0.3	<0.3
Thiosulfate Reducing Bacteria	org/1 mL	>110	24	<0.3
Iron Oxidizing Bacteria	org/1 mL	110	2	<0.3
			-	
		]		
Plant Operations Person hours to operate plant per v	veek		50	
	N CCM			
T & O problems			ро	
Hardness	high		-	
	low		-	
			-	
Recycel Filter Backwash			no	
Distribution system flushing progr	- 11		7	
		ļ		
Storage	m3		3182	
Average Daily Production	m3		1660	
Ave. Theoretical Hydraulic Detenti	on, hr.		46.0	
Trestment			A/Clt/Rftt/pH/PPCl2	Fh/TWR
Treatment Weekly Sampling Routine		RWR/Cg Raw	A/Cir/Rfit/pH/PP Ci2	FWTWR
Treatment Weekly Sampling Routine free Cl2				Fla/TWR
Treatment Weekly Sampling Routine free C12 total C12				FM/TWR
Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidity				Fla/TWR
Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidity temperature				Flw/TWR
Treatment Weekly Sampling Routine free Cl2 total Cl2 total Cl2 totaldry temperature pH				Fla/TWR
Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidity temperature pH Floride				Fh/TWR
Treatment Weekly, Sampling Routine free Cl2 total Cl2 turbidity tamperature pH Floride Color				FlwTWR_
Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidity temperature pH Floride Color Hardness				FWTWR
Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Ma				FWTWR
Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Mn Fe				FlorTWR
Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Ma				FlwTWR
Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Mn Fe Alkalimity			Trested	FlwTWR
Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Mn Fe Alkalmity Microbial	pet month			FlorTWR
Treatment Weekly Sampling Rottine free Cl2 total Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Mn Fe Alkahmity Microbial Chemical Dosing and Operating, St			Trested	FlorTWR
Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Mn Fe Alkalmity Microbial	ralegy		Treated	FlwTWR
Treatment Weekly Sampling Rottine free Cl2 total Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Mn Fe Alkahmity Microbial Chemical Dosing and Operating, St	ralegy current low		7	Flo/TWR
Treatment Weekly Sampling Rottine free Cl2 total Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Mn Fe Alkahmity Microbial Chemical Dosing and Operating, St	rategy current low high		Treated 8 ? ? ?	FlorTWR
Treatment Weekly Sampling Rottine free Cl2 total Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Mn Fe Alkahmity Microbial Chemical Dosing and Operating, St	rntegy current low high type		Trested 8 ? ? alum	
Treatment Weekly Sampling Rottine free Cl2 total Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Mn Fe Alkalmity Microbial Chemical Dosing and Operating St Congulants	rulegy current low high type adjustment		Trested 8 ? ? ? alum fed by m] per minite	
Treatment Weekly Sampling Rottine free Cl2 total Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Mn Fe Alkahmity Microbial Chemical Dosing and Operating, St	rategy current low high type adjustment current		Trested 8 7 ? ? alum fed by m] per minite ?	
Treatment Weekly Sampling Rottine free Cl2 total Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Mn Fe Alkalmity Microbial Chemical Dosing and Operating St Congulants	rategy current low high type adjustment current low		Trested 8 ? ? ? auun fed by m] per minite ?	
Treatment Weekly Sampling Rottine free Cl2 total Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Mn Fe Alkalmity Microbial Chemical Dosing and Operating St Congulants	rategy current low high type adjustment current low high		Trested 8 ? ? ? alum fed by ml per minite ? ?	
Treatment Weekly Sampling Rottine free Cl2 total Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Mn Fe Alkalmity Microbial Chemical Dosing and Operating St Congulants	rategy current low high type adjustment current low high type		Trested 8 ? ? ? alum fed by m] per minite ? ? ? ?	
Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Ma Fe Alkalimity Microbial <u>Chemical Dosing and Operating St</u> Coggulants Polymer	rategy current low high type adjustment current low high type adjustment		Treated	
Treatment Weekly Sampling Rottine free Cl2 total Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Mn Fe Alkalmity Microbial Chemical Dosing and Operating St Congulants	ntegy current low high djustment current low high type adjustment current		Trested 8 ? ? alum fed by ml per minite ? presstol fed by ml per minite ?	
Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Ma Fe Alkalimity Microbial <u>Chemical Dosing and Operating St</u> Coggulants Polymer	rulegy current low high type adjustment current low high type adjustment current low		Trested 8 7 7 7 7 7 7 7 7 7 7 7 7 7	
Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Ma Fe Alkalimity Microbial <u>Chemical Dosing and Operating St</u> Coggulants Polymer	rategy current low high type adjustment current low high type adjustment current low high		Treated  Read  Rea	
Treatment Weekly Sampling Rottine free Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Mn Fe Alkahnity Microbial Chemical Dosing and Operating St Cosgniants Polymer Soda Ash	rategy current low high type adjustment low high type adjustment current low high adjustment		Treated 8 ? ? alum fed by ml per minite ? prestol fed by ml per minite ? ? ? fed by ml per minite ? ? ? ? ? ? ? ? ? ? ? ? ?	
Treatment <u>Weekly Sampling Routine</u> free Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Mn Fe Alkalimity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coggulants Polymer	ntegy current low high type adjustment current low high type adjustment current low high adjustment current current		Treated	
Treatment Weekly Sampling Rottine free Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Mn Fe Alkahnity Microbial Chemical Doring and Operating St Congulants Polymer Soda Anh	relegy carent low high type adjustment carent low high adjustment current low high adjustment current low bow hogh adjustment current low		Treated	
Treatment Weekly Sampling Rottine free Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Mn Fe Alkahnity Microbial Chemical Doring and Operating St Congulants Polymer Soda Anh	ntegy current low high type adjustment current low high sdjustment current low high adjustment current low high		Treated	
Treatment Weekly Sampling Rottine free Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Mn Fe Alkahnity Microbial Chemical Doring and Operating St Congulants Polymer Soda Anh	refegy cartent low high type adjustment current low high type adjustment current low high adjustment current low high how high type		Treated	
Treatment Weekly Sampling Rottine free Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Mn Fe Alkatimity Microbial Chemical Dosing and Operating St Cosgniants Polymer Soda Ash Disinfection	ntegy current low high type adjustment current low high adjustment current low high adjustment current low high adjustment current adjustment		Treated	
Treatment Weekly Sampling Rottine free Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Mn Fe Alkahnity Microbial Chemical Dosing and Operating St Cosgniants Polymer Soda Ash	ntegy current low high type adjustment current low high sdjustment current low high adjustment current low high adjustment current low		Treated	
Treatment Weekly Sampling Rottine free Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Mn Fe Alkatimity Microbial Chemical Dosing and Operating St Cosgniants Polymer Soda Ash Disinfection	ntegy current low high type adjustment. current low high adjustment current low high selustment current low high type adjustment current low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high high low high low high high high high high high high hig		Treated	
Treatment Weekly Sampling Rottine free Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Mn Fe Alkatimity Microbial Chemical Dosing and Operating St Cosgniants Polymer Soda Ash Disinfection	ntegy current low high type adjustment current low high adjustment current low high adjustment current low high adjustment current low high low high low high low high low high low high how high how high how high how high how high how high how high how high how high how high how high how high how high how high how high how high how high how high how high how high how high how high how how high how high how high how how high how how high how high how high how high how high how high how high how high how high how high how high how high how how high how how high how how high how how how how how how how how how ho		Treated	
Treatment Weekly Sampling Rottine free Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Mn Fe Alkatimity Microbial Chemical Dosing and Operating St Cosgniants Polymer Soda Ash Disinfection	ntegy current low high type adjustment current low high type adjustment current low high type adjustment current low high type		Treated	
Treatment Weekly Sampling Rottine free Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Mn Fe Alkalmity Microbial Chemical Doeing and Operating St Congulants Polymer Soda Ash Disinfection T & O control	ntegy current low high type adjustment. current low high dustment current low high sdjustment current low high type adjustment current low high type adjustment current low		Treated  Treated  8  7  7  7  adum fed by ml per minite 7  7  7  7  7  7  7  7  7  7  7  7  7	
Treatment Weekly Sampling Rottine free Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Mn Fe Alkatimity Microbial Chemical Dosing and Operating St Cosgniants Polymer Soda Ash Disinfection	ntegy current low high type adjustment current low high type adjustment current low high low high type type adjustment current low high type adjustment current low high type current low high current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current		Treated  S S  ? ? ? alum fed by ml per minite ? ? praestol fed by ml per minite ? ? fed by ml per minite ? ? fed by ml per minite ? ? fed by les/24 hr ? ?	
Treatment Weekly Sampling Rottine free Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Mn Fe Alkalmity Microbial Chemical Doeing and Operating St Congulants Polymer Soda Ash Disinfection T & O control	ntegy current low high type adjustment current low high type adjustment current low high high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low		Treated	
Treatment Weekly Sampling Rottine free Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Mn Fe Alkalmity Microbial Chemical Doeing and Operating St Congulants Polymer Soda Ash Disinfection T & O control	ntegy current low high type adjustment current low high adjustment current low high adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high high type bow high type bow high type		Treated	
Treatment Weekly Sampling Rotting free Cl2 total Cl2 total Cl2 total Cl2 total Cl2 total Cl2 total Cl2 table pH Floride Color Hardness Mn Fe Alkalmity Microbial Chemical Dosing and Operating St Congulants Polymer Soda Ash Disinfection T & O control	ntegy current low high type adjustment current low high type adjustment current low high high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low		Treated	

			HINTON 18-Aug-94	
Type of Sample		Raw	Treated	Distributed
Temperature	deg C	-	4.8	-
pH		7.8	7.2	7.2
Conductivity	Miro ohma/c	200	240	240
Turbidity	NTU	83	0.75	0.31
Total Chlorine	mg/L	-	0.58	0.41
Free Chlorine	mg/L	-	0.54	0.31
Color	TCU	50	<0	<0
Ammonia	mg/L	0.071		0
Odour Type			chlorine	chlorine
Odour Intensity	out of 3		1	1
Flavour Profile	out of 10	NA	7	7
Flavour Comment	001 01 10	in the second se	ľ	1
Playout Comptient				
THMs	1100		30	34
1 PEVES	ug/L	1-	100	34
Total Coliforms	cfu/100ml	confl	<1	<1
Fecal Coliforns	cfu/100mi	25	-	<1
Heterotropic Plate Count (48 hr)	cfu/1 mL	199	11	<1
Heterotropic Plate Count (7 days)	cfu/1 mL	conf	2	<1
Klebniella	cfu/100ml	confl	17	<1
Fecal Streptococcus	cfu/100ml	133	<1	<1
Molda	cfu/1 mL	18	3	<1
Yeast	efu/1 mL	210	<1	<1
Iron Reducing Bacteria	org/1 mL	>110	<0.3	<0.3
Sulfate Reducing Bacteria	org/1 mL	46	<0.3	<0.3
Sulfite Reducing Bacteria	org/1 mL	24	<0.3	<0.3
Thiosulfate Reducing Bacteria.	org/1 mL	46	0.9	<0.3
Iron Oxidizing Bacteria	org/1 mL	>110	<0.3	<0.3
			1	
Plant Operations				
Person hours to operate plant per	week		168	
			by pulpmill operator	15
T & O problems			2	
· · · · province			not sure	
Hardness	high		?	
- Har Canada			2	
	low		7	
			softening in the win	ier
Recycel Filter Backwash			yes	
			in the winter	
Distribution system flushing progr	am.		?	
Storage	m3		0	
	m3 m3		0 11356.2	
Average Daily Production	m3			
Average Daily Production Ave. Theoretical Hydraulic Detent	m3		11356.2 0.0	
Average Daily Production Ave. Theoretical Hydraulic Detent Treatment	m3		11356.2 0.0 CrA/Fic/Cit/Rfit/Ci2/F	ไข
Average Daily Production Ave. Theoretical Hydraulic Detent Treatment	m3	Raw	11356.2 0.0	ไข
Average Daily Production	m3		11356.2 0.0 CrA/Fic/Cit/Rfit/Ci2/F	ไข
Avarage Daily Production Ave. Theoretical Hydraulic Detent Treatment Weakly Sampling Routine free Cl2	m3		11356.2 0.0 CRA/Flc/Clt/Rflt/Cl2/F Treated	วีย
Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weakly Sampling Routine free C12 total C12	m3		11356.2 0.0 ZA/Flc/Clt/Rflt/Cl2/F Treated 168	]c
Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weakly Sampling Routine free C12 total C12 total C12 total C12 total C12	m3		11356.2 0.0 CRA/Flc/Clt/Rflt/Cl2/F Treated	ີ່ໄຮ
Average Deily Production Ave. Theoretical Hydrathic Detent Treatment Weakly Sampling Routine free C12 total C12 total C12 tarbidity temperature	m3		11356-2 0.0 2007Flc/Cls/Rflt/Cl2/F Treated 168 - 168	Ju
Average Deily Production Ave. Theoretical Hydraulic Detent Treatment Weakly Sampling Routine free C12 total C12 turbidity temperature pH	m3		11356.2 0.0 57.A/FL/Ch/Rfl/Cl2/F Treated 168 - 168 - 84	<b>J</b> u
Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weakly Sampling Routine free C12 total C12 turbidity temperature pH Floride	m3		11356-2 0.0 2007Flc/Cls/Rflt/Cl2/F Treated 168 - 168	ไข
Average Deily Production Ave. Theoretical Hydrathic Detent Treatment Weakly Sampling Routine free Cl2 total Cl2 total Cl2 turbidity temperature pH Floride Color	m3		11356.2 0.0 57.A/FL/Ch/Rfl/Cl2/F Treated 168 - 168 - 84	12
Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weakly Sampling Routine free C12 total C12 turbidity temperature pH Floride	m3		11356.2 0.0 57.A/FL/Ch/Rfl/Cl2/F Treated 168 - 168 - 84	10
Average Deily Production Ave. Theoretical Hydraulic Detent Treatment. Weakly Sampling Routine free C12 total C12 total C12 total C12 turbidity temperature pH Floride Color Hardness	m3		11356.2 0.0 57.A/Flc/Chr/Rflt/Cl2/F Treated 168 - 168 - 84	la
Average Deily Production Ave. Theoretical Hydraulic Deteat Treatment Weekly Sampling Routine free C12 total C12 total C12 total C12 turbidity temperature pH Floride Color Hardness Mn	m3		11356.2 0.0 57.A/Flc/Chr/Rflt/Cl2/F Treated 168 - 168 - 84	<u>]u</u>
Average Daily Production Ave. Theoretical Hydrathic Detent Treatment Weakly Sampling Routine free C12 total C12 total C12 temperature pH Floride Color Hardness Mn Fe	m3		11356.2 0.0 57.A/Flc/Chr/Rflt/Cl2/F Treated 168 - 168 - 84	la
Average Daily Production Ave. Theoretical Hydrathic Detent Treatment Weakly Sampling Routine free C12 total C12 total C12 temperature pH Floride Color Hardness Mn Fe	m3		11356.2 0.0 57.A/Flc/Chr/Rflt/Cl2/F Treated 168 - 168 - 84	712
Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weakly Sampling Routine free Cl2 total Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Mn Fe Allcalinity	m3 kr.		11356.2 0.0 57.A/Flc/Chr/Rflt/Cl2/F Treated 168 - 168 - 84	12
Average Daily Production Ave. Theoretical Hydrathic Detent Treatment Weakly Sampling Routine free C12 total C12 total C12 temperature pH Floride Color Hurdness Min Fe Allcalinity Microbial	m3 ion, hr.		11356.2 0.0 57.A/Flc/Chr/Rflt/Cl2/F Treated 168 - 168 - 84	la
Average Daily Production Ave. Theoretical Hydraulic Detent Treatment. Weakly Sampling Routine free C12 total C12 total C12 total C12 total C12 total C12 for C12 Color Field Allaclinity Microbial Chemical Documg and Operating S	m3 ion, hr.		11356.2 0.0 57.A/Flc/Chr/Rflt/Cl2/F Treated 168 - 168 - 84	<u>lu</u>
Average Daily Production Ave. Theoretical Hydraulic Detent Treatment. Weakly Sampling Routine free C12 total C12 total C12 total C12 total C12 total C12 for C12 Color Field Allaclinity Microbial Chemical Documg and Operating S	m3 ion, hr. per month retegy current		11356.2 0.0 22A/Flc/Clu/Rflu/Cl2/F Treated 168 - 168 - 84 84 84 - - - - - - -	<u>]u</u>
Average Daily Production Ave. Theoretical Hydraulic Detent Treatment. Weakly Sampling Routine free C12 total C12 total C12 total C12 total C12 total C12 for C12 Color Field Allaclinity Microbial Chemical Documg and Operating S	m3 ion, hr. per month <u>ystegy</u> current low		11356.2 0.0 27.AFTe/Clu/Rfb/Cl2/F Trended 168 - 84 84 84 - - - - - 7 30 7	la
Average Daily Production Ave. Theoretical Hydraulic Detent Treatment. Weakly Sampling Routine free C12 total C12 total C12 total C12 total C12 total C12 for C12 Color Field Allaclinity Microbial Chemical Documg and Operating S	m3 ion, hr. per month retery current low high		11356.2 0.0 22AFIe/Clu/Rflu/Cl2/F Treated 168 - 168 - 84 84 84 - - - - - - 7 7	<u>]u</u>
Average Daily Production Ave. Theoretical Hydraulic Detent Treatment. Weakly Sampling Routine free C12 total C12 total C12 total C12 total C12 total C12 for C12 Color Field Allaclinity Microbial Chemical Documg and Operating S	m3 ion, hr. <u>per mouth</u> <u>rwery</u> current low high type		11356.2 0.0 57.A/F1c/Clu/Rflu/C12/F Treated 168 - 168 - 84 - - - - - - - - - - - - - - - - -	
Average Deily Production Ave. Theoretical Hydraulic Detent Treatment. Weakly Sampling Routine free C12 total C12 total C12 total C12 turbidity temperature pH Floride Color Hardness	m3 ion, hr. per month jutegy current low high type sdjustment		11356.2 0.0 <b>DEALFIC/CIUREDUCI2/F</b> Treated 168 - 84 84 - - - - 7 30 7 7 alum based on raw tarbid	
Average Daily Production Ave. Theoretical Hydraulic Detent Treatment. Weakly Sampling Routine free C12 total C12 total C12 total C12 total C12 total C12 for C12 Color Field Allaclinity Microbial Chemical Documg and Operating S	m3 ion, hr. <u>per mouth</u> <u>rutery</u> current low high type		11356.2 0.0 <b>3</b> <u>CAFI4/Clu/Rflu/Cl2/F</u> Treated 168 - 168 - 84 - - - - - - - - - - - - - - - - -	
Average Daily Production Ave. Theoretical Hydrathic Detent Treatment Weakly Sampling Routine free C12 total C12 tota	m3 ion, hr. per month jutegy current low high type sdjustment		11356.2 0.0 <b>DEALFIC/CIUREDUCI2/F</b> Treated 168 - 84 84 - - - - 7 30 7 7 alum based on raw tarbid	
Average Daily Production Ave. Theoretical Hydrathic Detent Treatment Weakly Sampling Routine free C12 total C12 tota	m3 ion, hr. per mouth recey current low high type adjustment current low		11356.2 0.0 <b>3</b> <u>CAFI4/Clu/Rflu/Cl2/F</u> Treated 168 - 168 - 84 - - - - - - - - - - - - - - - - -	
Average Daily Production Ave. Theoretical Hydrathic Detent Treatment Weakly Sampling Routine free C12 total C12 tota	m3 ion, hr. per month press current low high type sdjustment current low high		11356.2 0.0 27.A/F1c/Clr/Rflu/Cl2/F Treated 168 - 84 84 84 - - - - - - - - - - - - - -	
Average Daily Production Ave. Theoretical Hydrathic Detent Treatment Weakly Sampling Routine free C12 total C12 tota	m3 ion, hr. per month recey current low high type current low high type		11356.2 0.0 <b>3</b> <b>3</b> <b>3</b> <b>3</b> <b>4</b> <b>5</b> <b>5</b> <b>4</b> <b>4</b> <b>5</b> <b>5</b> <b>7</b> <b>7</b> <b>1</b> <b>1</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>1</b> <b>6</b> <b>1</b> <b>1</b> <b>6</b> <b>1</b> <b>1</b> <b>6</b> <b>1</b> <b>1</b> <b>1</b> <b>6</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b>	
Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weakly Sampling Routine free C12 total C12 total C12 temperature pH Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Dosting and Operating S Congulants	m3 ion, hr. per month yetegy current low high type adjustment current low high type adjustment		11356.2 0.0 27.A/F1c/Clr/Rflu/Cl2/F Treated 168 - 84 84 84 - - - - - - - - - - - - - -	
Average Daily Production Ave. Theoretical Hydrathic Detent Treatment Weakly Sampling Routine free C12 total C12 total C12 total C12 temperature pH Floride Color Hardness Min Fe Alkalinity Microbial Chemical Dosing and Operating S Cognilants	m3 ion, hr. per mosth prese current low high type adjustment current low high type adjustment current		11356.2 0.0 <b>3</b> <b>3</b> <b>3</b> <b>3</b> <b>4</b> <b>5</b> <b>5</b> <b>4</b> <b>4</b> <b>5</b> <b>5</b> <b>7</b> <b>7</b> <b>1</b> <b>1</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>1</b> <b>6</b> <b>1</b> <b>1</b> <b>6</b> <b>1</b> <b>1</b> <b>6</b> <b>1</b> <b>1</b> <b>1</b> <b>6</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b>	
Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weakly Sampling Routine free C12 total C12 total C12 temperature pH Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Dosting and Operating S Congulants	m3 ion, hr. per month recey current low high type adjustment current low high type adjustment current low		11356.2 0.0 <b>3</b> <b>3</b> <b>3</b> <b>3</b> <b>4</b> <b>5</b> <b>5</b> <b>4</b> <b>4</b> <b>5</b> <b>5</b> <b>7</b> <b>7</b> <b>1</b> <b>1</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>1</b> <b>6</b> <b>1</b> <b>1</b> <b>6</b> <b>1</b> <b>1</b> <b>6</b> <b>1</b> <b>1</b> <b>1</b> <b>6</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b>	
Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weakly Sampling Routine free C12 total C12 total C12 temperature pH Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Dosting and Operating S Congulants	m3 ion, hr. Der mouth Triegy current low high type adjustment current low high type adjustment current low		11356.2 0.0 <b>3</b> <b>3</b> <b>3</b> <b>3</b> <b>4</b> <b>5</b> <b>5</b> <b>4</b> <b>4</b> <b>5</b> <b>5</b> <b>7</b> <b>7</b> <b>1</b> <b>1</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>1</b> <b>6</b> <b>1</b> <b>1</b> <b>6</b> <b>1</b> <b>1</b> <b>6</b> <b>1</b> <b>1</b> <b>1</b> <b>6</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b>	
Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weakly Sampling Routine free C12 total C12 total C12 temperature pH Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Dosting and Operating S Congulants	m3 ion, hr. per month recey current low high type adjustment current low high type adjustment current low		11356.2 0.0 <b>3</b> <b>3</b> <b>3</b> <b>3</b> <b>4</b> <b>5</b> <b>5</b> <b>4</b> <b>4</b> <b>5</b> <b>5</b> <b>7</b> <b>7</b> <b>1</b> <b>1</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>1</b> <b>6</b> <b>8</b> <b>1</b> <b>1</b> <b>6</b> <b>1</b> <b>1</b> <b>6</b> <b>1</b> <b>1</b> <b>6</b> <b>1</b> <b>1</b> <b>1</b> <b>6</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b>	
Average Deily Production Aver. Theoretical Hydraulic Detent Treatment Weathy Sampling Routine free C12 total C12 total C12 tarbidity temperature pH Floride Color Hurdness Mn Fe Albalinity Microbial Cosgniants Polymer Soda Ash	m3 ion, hr. Der mouth Triegy current low high type adjustment current low high type adjustment current low		11356.2 0.0 57.A/F1c/Clu/Rflu/Cl2/F Treated 168 - 168 - 84 - - - - - - - - - - - - - - - - -	
Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weakly Sampling Routine free C12 total C12 total C12 temperature pH Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Dosting and Operating S Congulants	m3 ion, kr. per mouth mergy current low high type adjustment current low high type adjustment low high type adjustment		11356.2 0.0 27.AFTe/ClayRflu/Cl2/F Treated 168 - 84 84 84 - - - - - - - - - - - - -	
Average Deily Production Ave. Theoretical Hydraulic Deteat Treatment Weekly Sampling Routine free Cl2 total Cl2 total Cl2 total Cl2 temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St Cognilants	m3 ion, hr. per mosth resegv current low high type adjustment current low high type adjustment current low high type adjustment current low		11356.2 0.0 <b>CANFLe/Clu/Rflu/Cl2/F</b> Treated 168 - 168 - 84 - - - - - - - - - - - - -	
Average Deily Production Ave. Theoretical Hydraulic Deteat Treatment Weekly Sampling Routine free Cl2 total Cl2 total Cl2 total Cl2 temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St Cognilants	m3 ion, kr. per mosth presevent low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high high type adjustment low high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high		11356.2 0.0 <u>SPA/FIC/Clr/Rflr/Cl2/F</u> Treated 168 - 168 - 84 - - - 7 30 7 alum based on raw turbid 0.25 ? constant - - - ?	
Average Deily Production Ave. Theoretical Hydraulic Deteat Treatment Weekly Sampling Routine free Cl2 total Cl2 total Cl2 total Cl2 temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St Cognilants	m3 ion, hr. Per Boosch Twiegy current low high type adjustment current low high type adjustment current low high type adjustment current low high type ight ight bow high type ight ight ight bow high type ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ig		11356.2 0.0 57.A/F1c/Clu/Rflu/C12/F Treated 168 - 168 - 84 - - - - - - - - - - - - - - - - -	
Average Daily Production Ave. Theoretical Hydrathic Detent Treatment. Weakly Sampling Routine free C12 total C12 tot	m3 ion, hr. per mosth Tategy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type		11356.2 0.0 <u>SPA/FIC/Clr/Rflr/Cl2/F</u> Treated 168 - 168 - 84 - - - 7 30 7 alum based on raw turbid 0.25 ? constant - - - ?	
Average Daily Production Ave. Theoretical Hydrathic Detent Treatment. Weakly Sampling Routine free C12 total C12 tot	m3 ion, hr. Per Boosch Twiegy current low high type adjustment current low high type adjustment current low high type adjustment current low high type ight ight bow high type ight ight ight bow high type ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ight ig		11356.2 0.0 57.A/F1c/Clu/Rflu/C12/F Treated 168 - 168 - 84 - - - - - - - - - - - - - - - - -	
Average Deily Production Ave. Theoretical Hydraulic Deteat Treatment Weekly Sampling Routine free Cl2 total Cl2 total Cl2 total Cl2 temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St Cognilants	m3 ion, hr. per month receive current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high current low high current low high current low high current low high current current low high current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current		11356.2 0.0 57.A/F1c/Clu/Rflu/C12/F Treated 168 - 168 - 84 - - - - - - - - - - - - - - - - -	
Average Daily Production Ave. Theoretical Hydrathic Detent Treatment. Weakly Sampling Routine free C12 total C12 tot	m3 m3 per mosth per		11356.2 0.0 57.A/F1c/Clu/Rflu/C12/F Treated 168 - 168 - 84 - - - - - - - - - - - - - - - - -	
Average Daily Production Ave. Theoretical Hydrathic Detent Treatment. Weakly Sampling Routine free C12 total C12 tot	m3 ion, hr. per mosth reserve current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type bigh type adjustment current low high type bigh type bigh type adjustment current low high type bigh type type adjustment current low high type bigh type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type		11356.2 0.0 57.A/F1c/Clu/Rflu/C12/F Treated 168 - 168 - 84 - - - - - - - - - - - - - - - - -	
Average Daily Production Ave. Theoretical Hydrathic Detent Treatment. Weakly Sampling Routine free C12 total C12 tot	m3 ion, hr. per month mergy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type		11356.2 0.0 57.A/F1c/Clu/Rflu/C12/F Treated 168 - 168 - 84 - - - - - - - - - - - - - - - - -	
Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weakly Sampling Routine free C12 total C12 total C12 total C12 total C12 Color Hardness Ma Fe Alkalimity Microbial Chemical Dosing and Operating S Coagulants Polymer Soda Ash Disinfection	m3 m3 per mosth per		11356.2 0.0 57.A/F1c/Clu/Rflu/Cl2/F Treated 168 - 168 - 84 - - - - - - - - - - - - - - - - -	
Average Deily Production Aver. Theoretical Hydraulic Detent Treatment. Weakly Sampling Routine free C12 total C12 total C12 total C12 Forda Color Hardness Ma Fe Alkalimity Microbial Chemical Dosing and Operating S Coognilants Polymer Soda Ash Disinfection	m3 ion, hr. per month mergy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type		11356.2 0.0 57.A/F1c/Clu/Rflu/C12/F Treated 168 - 168 - 84 - - - - - - - - - - - - - - - - -	
Average Deily Production Aver. Theoretical Hydraulic Detent Treatment. Weakly Sampling Routine free C12 total C12 total C12 total C12 Forda Color Hardness Ma Fe Alkalimity Microbial Chemical Dosing and Operating S Coognilants Polymer Soda Ash Disinfection	m3 m3 per mosth per		11356.2 0.0 57.A/F1c/Clu/Rflu/Cl2/F Treated 168 - 168 - 84 - - - - - - - - - - - - - - - - -	
Average Deily Production Aver. Theoretical Hydraulic Detent Treatment. Weakly Sampling Routine free C12 total C12 total C12 total C12 Forda Color Hardness Ma Fe Alkalimity Microbial Chemical Dosing and Operating S Coognilants Polymer Soda Ash Disinfection	m3 m3 ion, hr. Per Booth Treegy current low high type adjustment current low high adjustment current low high adjustment current low high igh type adjustment current low high type adjustment current low high low high low high type adjustment current low		11356.2 0.0 <b>SPA/FIC/Cls/Rfls/C12/F</b> Treated 168 - 168 - 84 - - - 7 30 7 alum based on raw barbid 0.25 ? constant - - ? C12 gas based on residual - - ? 1.1 ?	
Average Daily Production Ave. Theoretical Hydrathic Detent Treatment. Weakly Sampling Routine free C12 total C12 tot	m3 ion, hr. per month Transfer responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses responses		11356.2 0.0 <b>CAUFIC/Clu/Rflu/Cl2/F</b> Treated 168 - 168 - 84 84 - - - - - - - - - - - - -	

			JANVIER	
Type of Sample		Raw	1-Sep-94 Treated	Distributed
Temperature	deg C	18	18	8.6
pH		8.4	7.8	7.75
Conductivity	Miro ohms/c	290	350	380
Turbidity	NTU	5.5	0.28	0.25
Total Chlorine	mg/L		1.75	0.08
Free Chlorine	mg/L	L.	1.23	0.02
Color	TCU	10	<0	<0
Ammonia		0.022		0.018
	mg/L	1	[	
Odour Type		musty grassy	chlorine	27
Odour Intensity	out of 3	0.5	2	0.1
Flavour Profile	out of 10	NA	5	6
Flavour Comment		]	1	
THMs	ug/L	-	223	269
Total Coliforms	cfu/100ml	82		
Fecal Coliforms		-	<1	<1
Heterotropic Plate Count (48 hr)	cfu/100ml	<1	<1	<1
	cfu/1 mL	43	<1	2
Heterotropic Plate Count (7 days)	cfu/1 mL	91	<1	1300
Klebsiella	cfu/100ml	228	<1	41
Fecal Streptococcus	cfu/100ml	1	<1	<1
Moids	cfa/1 mL	1	<1	1
Yeast	cfu/1 mĽ	15	2	6
Iron Reducing Bacteria	org/1 mL	>110	<0.3	2
Sulfate Reducing Bacteria	org/1 mL	24	<0.3	2
Sulfite Reducing Bacteria	org/1 mL	>110	<0.3	0.9
Thiosulfate Reducing Bacteria	org/1 mL	>110	<0.3	>110
Iron Oxidizing Bacteria	org/1 mL	46	<0.3	46
		-		
Plant Operations				
Person hours to operate plant per v	week		14	
T & O problems			no some algae problem	
Hardness	high		-	-
1 Mar 1 M	niga low		-	
	19W			
Remund Filter Dect			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
Recycel Filter Backwash			оп	
Distribution system flushing progra	871		yes	
Storage	<b>m</b> 3		31	
	m3		53	
Average Daily Production				
Ave. Theoretical Hydraulic Detenti	on, hr.		14.0	
Trestment				
Weekly Sampling Routine		Raw	Treated	
free Cl2				
			7	
total Cl2		_	1	
turbidity		7	7	
lemperature		7	7	
pH		7	7	
Floride			-	
Color			-	
			-	
Hardness			1	
Hardness Mn			+	
			•	
Mn. Fe			-	
Vin Fe			• • •	
Vin Fe A <u>likalimi</u> ty Viicrobial	per month		-	
Mn Fe Alkalimity Microbial Chemical Doging and Operating St	i testi			
Ma Fe Alkalimity Microbial	curreni		110	
Mn Fe Alkalimity Microbial Chemical Doging and Operating St	rulegy curreni low		?	
Mn Fe Alkalimity Microbial Chemical Doging and Operating St	rategy current low high		? ?	
Mn Fe Alkalimity Microbial Chemical Doging and Operating St	rutegy curreni low high type		?	
Mn Fe Alkalimity Microbial Chemical Doging and Operating St	rategy current low high		? ?	<u>_</u>
Mn Fe Alkalinity Microbial Chemical Doing and Operating St Congulants	rutegy curreni low high type		? ? alum	
Mn Fe Alkalinity Microbial Chemical Dogng and Operating St Congulants	rutegy curreni low high type adjustment		? ? alum	
Mn Fe Alkalimity Microbial Chemical Doging and Operating St	ntegy current low high type adjustment current low		? ? alum	
Mn Fe Alkalinity Microbial Chemical Doing and Operating St Congulants	ntegy current low high type adjustment current low high		? ? alum	
Mn Fe Alkalinity Microbial Chemical Doing and Operating St Congulants	rutegy curreni low high type adjustment curreni low high type		? ? alum	
Ma Fe Alkalinity Microbial <u>Chemical Doing and Operating St</u> Congulants Polymer	rutegy current low high type adjustment current low high type adjustment		? ? alum based on turbidity - - -	
Mn Fe Alkalinity Microbial <u>Demical Doing and Operating St</u> Congulants Polymer	rutegy current low high dype adjustment current low high type adjustment current		? ? alum based on turbidity - - - 47	
Mn Fe Alkalinity Microbial <u>Demical Doing and Operating St</u> Congulants Polymer	rurent low high type adjustment current low high type adjustment current low		? ? alum besed on turbidity - - - 47 ?	
Ma Fe Alkalinity Microbial <u>Chemical Doing and Operating St</u> Congulants Polymer	current low high type adjustment current low high type adjustment current low high		? ? ? based on turbidity - - - 47 ? ?	
Ma Fe Alkalmity <u>Microbial</u> <u>Computants</u> Polymer Soda Ash	current low high type adjustment current low high adjustment current low high adjustment.		? ? alum based on turbidity - - - 47 ? based on pH	
Mn Fe Alkalmity Microbial Congulants Congulants Polymer Soda Ash	regy current low high type adjustment current low high current low high adjustment current current		? ? alum based on turbidity - - - 47 ? ? based on pH 11.2	
Mn Fe Alkalmity Microbial Congulants Congulants Polymer Soda Ash	current low high type adjustment current low high adjustment current low high adjustment current low low high adjustment current low		? ? alum based on turbidity - - - 47 ? ? ? based on pH 11.2 ?	
Mn Fe Alkalmity Microbial Congulants Congulants Polymer Soda Ash	rurent low high type adjustment current low high type adjustment current low high adjustment current low high high high high high		? ? based on turbidity - - - 47 ? based on pH 11.2 ?	
Mn Fe Alkalmity Microbial Congulants Congulants Polymer Soda Ash	current low high type adjustment current low high adjustment current low high adjustment current low low high adjustment current low		? ? alum based on turbidity - - - 47 ? ? ? based on pH 11.2 ?	
Mn Fe Alkalmity Microbial Congulants Congulants Polymer Soda Ash	rurent low high type adjustment current low high type adjustment current low high adjustment current low high high high high high		? ? based on turbidity - - - 47 ? based on pH 11.2 ?	
Mn Fe Alkalmity <u>Chemical Doeng and Operating St</u> Congulants Polymer Soda Ash Diminfection	rureni low high type adjustment curreni low high type adjustment current low high adjustment current low high stype adjustment		? ? alum based on turbidity - - - 47 ? based on pH 11.2 ? ? NaOCI	
Mn Fe Alkalmity <u>Chemical Doeng and Operating St</u> Congulants Polymer Soda Ash Diminfection	rurent low high type adjustment current low high sdjustment current low high adjustment current low high adjustment current current current		? ? alum based on turbidity - - - 47 ? based on pH 11.2 ? ? NaOCI	
Ma Fe Alkalinity Microbial <u>Chemical Doing and Operating St</u> Congulants Polymer	regy current low high type adjustment current low high type adjustment current low high high high type adjustment current low high low high low high low high low low		? ? alum based on turbidity - - - 47 ? based on pH 11.2 ? ? NaOCI	
Mn Fe Alkaimity <u>Macrobial</u> <u>Chemical Downg and Operating St</u> <u>Congulants</u> Polymer Soda Ash Disinfection	renergy current low high type adjustment current low high adjustment current low high adjustment current low high type adjustment current low high type badjustment current low high high high high high high high hig		? ? alum based on turbidity - - - 47 ? based on pH 11.2 ? ? NaOCI	
Mn Fe Alkalmity <u>Chemical Doeng and Operating St</u> Congulants Polymer Soda Ash Diminfection	rurent low high type adjustment current low high type adjustment current low high adjustment current low high adjustment current low high type adjustment type adjustment type		? ? alum based on turbidity - - - 47 ? based on pH 11.2 ? ? NaOCI	
Mn Fe Alkalinity Microbial Commical Doeng and Operating St Congulants Polymer Soda Ash Diminfection	rent of the second seco		? ? alum based on turbidity - - - 47 ? based on pH 11.2 ? ? NaOCI	
Mn Fe Alkalmity <u>Chemical Doeng and Operating St</u> Congulants Polymer Soda Ash Diminfection	regy current low high type adjustment current low high type adjustment current low high adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high current current low high type adjustment current current low high current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current curent current current curent current current		? ? alum based on turbidity - - - 47 ? based on pH 11.2 ? ? NaOCI	
Mn Fe Alkalinity Microbial Commical Doeng and Operating St Congulants Polymer Soda Ash Diminfection	regy current low high type adjustment current low high type adjustment current low high adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high bigh type adjustment current low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high hogh hogh hogh hogh hogh hogh hogh		? ? alum based on turbidity - - - 47 ? based on pH 11.2 ? ? NaOCI	
da Fe Alkalinity dicrobial Demical Domg and Operating St Congulants Polymer Soda Ash Diminfection	regy current low high type sdjustment current low high adjustment current low high sdjustment current low high type adjustment current low high type adjustment current low high high high high high high high hig		? ? alum based on turbidity - - - 47 ? based on pH 11.2 ? ? NaOCI	
Mn Fe Alkalinity Microbial Commical Doeng and Operating St Congulants Polymer Soda Ash Diminfection	regy current low high type adjustment current low high type adjustment current low high adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high bigh type adjustment current low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high hogh hogh hogh hogh hogh hogh hogh		? ? alum based on turbidity - - - 47 ? based on pH 11.2 ? ? NaOCI	

		JA	SPER NATIONAL PARK 16-Aug-94	
Type of Sample		Raw	Distributed	
Temperature	deg C	6	6.9	
pH		8	8	
Conductivity	Miro ohms/c	290	290	
Turbidity	NTU	80.0	0.12	
Total Chlorine	mg/L	NA	0.59	
Free Chlorine	mg/L.	NA.	0.55	
Color	TCU	0	0	
Ammonia Odour Type	mg/L	0.017	0.03 chlorine	
Odour Intensity	out of 3	none 0	0.1	
Flavour Profile	out of 10	6.5	7	
Flavour Comment	000 01 10	0.5	ľ	
THMs	ug/L	-	29	
Total Coliforms	cfu/100ml	<1	<1	
Fecal Coliforms	cfu/100ml	<1	<1	
Heterotropic Plate Count (48 hr)	cfu/1 mL	1	<1	
Heterotropic Plate Count (7 days)	cfu/1 mL	5	<1	
Klebniella	cfs/100ml	<1	<1	
Fecal Streptococcus	cfu/100ml	<1	<1	
Molds	cfu/1 mL	<1	1>	
Yeast	cfu/l mL	1	<1	
Iron Reducing Bacteria	org/1 mL	<0.3	<0.3	
Sulfate Reducing Bacteria	org/1 mL	<0.3	<0.3	
Sulfite Reducing Bacteria	org/1 mL	<0.3	<0.3	
Thiosulfate Reducing Bacteria	org/1 mL	<0.3	0.4	
Iron Oxidizing Bacteria	org/1 mL	<0.3	<0.3	
Plant Operations				
Person hours to operate plant per v	week		2	
			sometimes non	e
T & O problems			none	
Underen	a.i.e.h	ŀ	a few last year	
Hardness	high Iomr		130	
	low		120 constant	
Recycel Filter Backwash				
Distribution system flushing progr				
Distribution a jacon i manande progr	2011		no	
Storage	m3		no 7000 ?	
Storage Average Daily Production	m3 m3		7000	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti	m3 m3		7000 ? ?	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment	m3 m3		7000 ? ? NaOCI/TW	R_
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Rontine	m3 m3	Raw	7000 ? ? NaOCl/TW Distributed	<u>R_</u>
Storage Average Daily Production Ave. Theoretical Hydrautic Detenti Treatment Weekly Sampling Routing free C12	m3 m3	Raw	7000 ? ? NaOCI/TW	<u>R</u>
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment <u>Weekly Sampling Routine</u> free CI2 total CI2	m3 m3	Raw	7000 ? ? NaOCl/TW Distributed	<u>R</u>
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment <u>Weekly Sampling Rontine</u> free C12 total C12 total C12 turbidity	m3 m3	Raw	7000 ? ? <u>NaOCUTW</u> 1 -	<u>R</u>
Storage Average Daily Production Ave. Theoretical Hydrautic Detenti Treatment <u>Weekly Sampling Routine</u> free C12 total C12 turbidity tamperature	m3 m3	Raw	7000 ? ? <u>NaCCI/TW</u> Distributed 1 - - 1	<u>R</u>
Storage Average Daily Production Ave. Theoretical Hydrautic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH	m3 m3	Raw	7000 ? ? <u>NaOCUTW</u> 1 -	<u>R</u>
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment <u>Weekly Sampling Rontine</u> free C12 total C12 total C12 turbidity temperature pH Floride	m3 m3	Raw	7000 ? ? <u>NaCCI/TW</u> Distributed 1 - - 1	<u>R</u>
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routine free C12 total C12 total C12 turbidity temperature pH Floride Color	m3 m3	Raw	7000 ? ? <u>NaCCI/TW</u> Distributed 1 - - 1	<u>R</u>
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment <u>Weekly Sampling Rontine</u> free C12 total C12 total C12 turbidity temperature pH Floride	m3 m3	Raw	7000 ? ? NaCCI/TW 1 - 1 1 - 1 2	<u>R</u>
Storage Average Daily Production Ave. Theoretical Hydrautic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness	m3 m3	Raw	7000 ? ? NaCCI/TW 1 - 1 1 - 1 2	<u>R</u>
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment <u>Weekly Sampling Rontine</u> free C12 total C12 uurbidity temperature pH Floride Color Hardness Mn	m3 m3	Raw	7000 ? ? NaCCI/TW 1 - 1 1 - 1 2	<u>R</u>
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Samphing Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial	m3 m3 ion, hr.	Raw	7000 ? ? Distributed 1 - - 1 1 - 1 - 1 -	<u>R</u>
Storage Average Daily Production Ave. Theoretical Hydrautic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity Lemperature pH Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Dosing and Operating St	m3 m3 ion, hr. per month rates	Raw	7000 ? ? Distributed 1 - - 1 1 - 1 - 1 -	<u>R</u>
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Samphing Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial	m3 m3 ion, hr. per month metery current	Raw	7000 ? ? Distributed 1 - - 1 1 - 1 - 1 -	<u>R</u>
Storage Average Daily Production Ave. Theoretical Hydrautic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity Lemperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St	m3 m3 ion, hr. per mosth ratery current low	Raw	7000 ? ? Distributed 1 - - 1 1 - 1 - 1 -	<u>R</u>
Storage Average Daily Production Ave. Theoretical Hydrautic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity Lemperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St	m3 m3 ion, hr. per month ratesy current low high	Raw	7000 ? ? Distributed 1 - - 1 1 - 1 - 1 -	<u>R</u>
Storage Average Daily Production Ave. Theoretical Hydrautic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity Lemperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St	m3 m3 ion, hr. per month <u>ratery</u> current low high type	Raw	7000 ? ? Distributed 1 - - 1 1 - 1 - 1 -	<u>R</u>
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity turbidity turbidity turbidity turbidity Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St Cogniants	m3 m3 ion, hr. per mosth <u>rategy</u> current low high type sdjustment	Raw	7000 ? ? Distributed 1 - - 1 1 - 1 - 1 -	<u>R</u>
Storage Average Daily Production Ave. Theoretical Hydrautic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity Lemperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St	m3 m3 ion, hr. per month metery current low high type adjustment current	Raw	7000 ? ? Distributed 1 - - 1 1 - 1 - 1 -	<u>R</u>
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity turbidity turbidity turbidity turbidity Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St Cogniants	m3 m3 ion, hr. per month <u>msterv</u> current low high type adjustment current low	Raw	7000 ? ? Distributed 1 - - 1 - 1 - - - - - - - - - - - - -	<u>R</u>
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity turbidity turbidity turbidity turbidity Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St Cogniants	m3 m3 ion, hr. per mosth metery current low high type solutionent current low bigh	Raw	7000 ? ? Distributed 1 - - 1 1 - - 1 - 1 - - 1 - - - 1 - - - 1 - - - - - - - - - - - - - - - - - - - -	<u>R</u>
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity turbidity turbidity turbidity turbidity Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St Cogniants	m3 m3 ion, hr. per month <u>msterv</u> current low high type adjustment current low	Raw	7000 ? ? Distributed 1 - - 1 1 - 1 - 1 - 1 - 1 - - 1 - - - - - - - - - - - - - - - - - - - -	<u>R</u>
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity turbidity turbidity turbidity turbidity Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St Cogniants	m3 m3 ion, hr. per month metery current low high type adjustment current low high type	Raw	7000 ? ? Distributed 1 - - 1 1 - 1 - 1 - 1 - 1 - - 1 - - - - - - - - - - - - - - - - - - - -	<u>R</u>
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St Coggulants	m3 m3 ion, hr. per month <u>meter</u> current low high type adjustment current low high type adjustment current low	Raw	7000 ? ? Distributed 1 - - 1 1 - 1 - 1 - 1 - 1 - - 1 - - - - - - - - - - - - - - - - - - - -	<u>R</u>
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St Coggulants	m3 m3 ion, hr. per month neterv current low high type adjustment current low high type adjustment current low high type low	Raw	7000 ? ? Distributed 1 - - 1 1 - 1 - 1 - 1 - 1 - - 1 - - - - - - - - - - - - - - - - - - - -	<u>R</u>
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St Coggulants Polymer Soda Ash	m3 m3 m3 ion, hr. per month nategy current low high type adjustment current low high type adjustment low high type adjustment low high type adjustment low	Raw	7000 ? ? Distributed 1 - - 1 - 1 - - - - - - - - - - - - -	R
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St Coggulants	m3 m3 ion, hr. per month <u>ratery</u> current low high type adjustment current low high type adjustment current low high type adjustment current low high type current low	Raw	7000 ? ? Distributed 1 - - 1 1 - 1 - 1 - - 1 - - - - - - -	R
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St Coggulants Polymer Soda Ash	m3 m3 ion, hr. per mosth netery current low high type adjustment current low high type adjustment current low high type low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low low high low high low low high low high low high low low low low low low low low low low	Raw	7000 ? ? Distributed 1 - - 1 1 - 1 - 1 - - 1 - - - - - - -	<u>R</u>
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St Coggulants Polymer Soda Ash	m3 m3 m3 ion, hr. per month rategy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high high type adjustment current low high high high high low high high high low high high low high high low high high low high high low high low	Raw	7000 ? ? Distributed 1 - - 1 1 - - - - - - - - - - - - - -	R
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St Coggulants Polymer Soda Ash	m3 m3 ion, hr. per month merey current low high type adjustment current low high type adjustment current low high type type adjustment current low high type	Raw	7000 ? ? Distributed 1 - - 1 1 - 1 - 1 - - - - - - - - - -	<u>R</u>
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity turbidity turbidity Efforide Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St Coagulants Polymer Soda Ash Disinfection	m3 m3 m3 ion, hr. per mosth netery current low high type sdjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	Raw	7000 ? ? Distributed 1 - - 1 1 - - - - - - - - - - - - - -	<u>R</u>
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St Coggulants Polymer Soda Ash	m3 m3 m3 ion, hr. per month neterv current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	Raw	7000 ? ? Distributed 1 - - 1 - 1 - - - - - - - - - - - - -	<u>R</u>
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity turbidity turbidity Efforide Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St Coagulants Polymer Soda Ash Disinfection	m3 m3 m3 ion, hr. per month <u>merev</u> current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	Raw	7000 ? ? Distributed 1 - - 1 1 - 1 - 1 - - - - - - - - - -	<u></u>
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity turbidity turbidity Efforide Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St Coagulants Polymer Soda Ash Disinfection	m3 m3 m3 ion, hr. per mosth netery current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high high type adjustment current low high type adjustment current low high type adjustment current low high adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high high type adjustment current low high high type adjustment current low high high type adjustment current low high high type low high high high high high high high hig	Raw	7000 ? ? Distributed 1 - 1 1 - 1 - 1 - 1 - - - - - - - - -	R
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity turbidity turbidity Efforide Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St Coagulants Polymer Soda Ash Disinfection	m3 m3 m3 ion, hr. per month netry current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type sciustent current low high type	Raw	7000 ? ? Distributed 1 - - 1 - 1 - - - - - - - - - - - - -	<u>R</u>
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St Coagulants Polymer Soda Ash Disinfection T & O control	m3 m3 m3 ion, hr. per month neterv current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	Raw	7000 ? ? Distributed 1 - 1 1 - 1 - 1 - 1 - - - - - - - - -	<u>R</u>
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St Coagulants Polymer Soda Ash Disinfection T & O control	m3 m3 m3 ion, hr. per mosth patery current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type current low high type current low high type current low high type current low high type current low high type current low high type current low high type current low high type current low high type current low high type current low high current low high type current current low high type current current low high type current current current current low high type current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current curent current current c	Raw	7000 ? ? Distributed 1 - 1 1 - 1 - 1 - 1 - - - - - - - - -	R
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St Coagulants Polymer Soda Ash Disinfection T & O control	m3 m3 m3 ion, hr. per month ratery current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type low high type low high type low high type adjustment current low high type adjustment current low high type adjustment current low	Raw	7000 ? ? Distributed 1 - 1 1 - 1 - 1 - 1 - - - - - - - - -	<u>R</u>
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity turbidity turbidity Efforide Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St Coagulants Polymer Soda Ash Disinfection	m3 m3 m3 ion, hr. per mosth patery current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type current low high type current low high type current low high type current low high type current low high type current low high type current low high type current low high type current low high type current low high type current low high current low high type current current low high type current current low high type current current current current low high type current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current curent current current c	Raw	7000 ? ? Distributed 1 - 1 1 - 1 - 1 - 1 - - - - - - - - -	R

Person hours to operate plant per week     14       T & O problems     no       Hardness     high       Low     -       Recycel Filter Backwash     no       Distribution system flushing program     no       Storage     m3     45       Average Daily Production     m3     1601       Average Daily Production     m3     1601       Average Daily Production     m3     1601       Average nombine Routine     gal     7       Weekly Sampting Routine     Raw     7       Treatment     Meth/RWR/CgA/RD/Cl2/Flu/TWR     Weekly Sampting Routine       Veekly Sampting Routine     Raw     7       Free Cl2     7     7       Langer Routine     7     7       Provide     0.25     0.25       Color     -     -       Hardness     -     -       Microbial     per month     4       Microbial     gal     -       Alksinity     -     -       Alksitumet     pass 100     -       Augument     -     -       Now     -     -       Sods Ash     current     -       Low     15     -       Nigh     2.5     -			1	LAC LA BICHE	
Temperature of the second seco	The second second				
pi de conductivity Mero danue 320 350 250 250 250 250 250 250 250 250 250 2		deg C			
ConductivityMice odamic2050200Total Choranemg/LNA1.450.57Free Chairanemg/LNA1.450.57ColorTCU000ColorTCU000Jammeniamg/L0.4000Jammeniamg/L0.4000Jammeniamg/L0.4000Planover Profilout of 10Planover Profilout of 10Tad Colformacfu100mlFeed Colformacfu100mlFeed Colformacfu100mlFeed Colformacfu100mlFeed Colformacfu100mlFeed Colformacfu100mlFeed Colformacfu115260Hearcetopic Planc Count (2 May)cfu1100.3-Feed Colformacfu11111Hearcetopic Planc Count (2 May)cfu1100.3-Feed Colformacfu1124Feed Colformacfu110.49-Feed Colformacfu11100.3-Feed Colformacfu11100.3-Feed Colformacfu11111Feed Colformacfu1124Feed Colformacf		ange			121
Turbiany         NTU         1.8         0.37         0.36           Tool Choine         mgL         NA         1.02         0.21           Color         mgL         NA         1.02         0.21           Ammonia         mgL         0.002         -         -           Second Froline         ut of 3         0.01         1.5         -           Color Theorem Foline         ut of 3         0.01         1.5         -           Parona Collorma         eth/100n1         3         <1		Miro ohms/c			320
Teal Chioche mg/L NA 1.45 0.57 Free Chaorine mg/L NA 10.2 0.21 Color manage of the second of the					
Prec Choirine     mg/L     NA     1.02     0.21       Ammonia     mg/L     0.002     -     -       Ammonia     mg/L     0.001     1.5     -       Color Type     0.01     1.5     -     -       Color Type     0.01     1.5     -     -       Prover Profile     out of 3     0.01     -     -       TBM     ug/L     -     -     -       TPace Colforms     ch/100n1     3     <1					
Color TrQ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			t i i i i i i i i i i i i i i i i i i i		
Odone Type Odone Type Odone Type Odone Type Odone Type Odone Type Odone Type Plance Comment ThM Plance Type Plance Comment ThM Table Table Plance Comment ThM Table Plance Comment Theorematic Plance Comment Plance Comment Theorematic Plance Comment Theorematic Plance Comment Plance Comment Theorematic Plance Comment Theorematic Plance Comment Theorematic Plance Comment Plance Comment Theorematic Plance Plance Comment Theorematic Plance Plan	Color				
Code Type Color Uncarry Prover Connertout of 3 out of 10choice rchoice rThickugLTradi Coliforms reprod Coliforms re	Ammonia	mg/L	0.002	-	-
Odore Tubersery     out of 10     1.5     -       Flowour Position     out of 10     -     7     -       Table Collforms     ch/100ml     -     -     -       Total Collforms     ch/100ml     -     -     -       Teal Collforms     ch/100ml     -     -     -       Free Streptococcus     ch/100ml     2     -     100       Free Streptococcus     ch/100ml     2     -     1       Free Streptococcus     ch/100ml     2     -     -       Free Streptococcus     ch/100ml     2     -     -       Free Streptococcus     ch/100ml     -     -     -       Staffae Roducing Bateria     cry11ml     >110     0.3     -0.3       Staffae Roducing Bateria     cry11ml     >110     0.4     9       Thoostifier Roducing Bateria     cry11ml     >110     0.4     9       Theostifier Roducing Bateria     cry11ml     >100     -     -       Plant OperationS     no     -     -     -       Revey Cliber Bateria     cry11ml     >100     -     -       Staffae Roducing Bateria     cry11ml     >100     -     -       Staffae Roducing Bateria     cry11ml     >1	Odour Type	U U		chlorine	
Flavour Comment         ug/L         -         -         -           TOMA         ug/L         -         -         -         -           Tomal Coliforms         ch/100n1         -         -         -         -           Hearcotypic Plats Count (4 Mp)         L02         2         103         -         -           Hearcotypic Plats Count (4 Mp)         L02         2         103         -         -           Feed Schiptococcus         ch/100n1         1         1         1         1           Molds         ch/1 mL         1         1         1         1           Toma Reading Bateria         org/1 mL         2         40.3         -0.3         -           Toma Challing Bateria         org/1 mL         2         10         -         -         -           Toma Challing Bateria         org/1 mL         2         10         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         - <td></td> <td>out of 3</td> <td></td> <td>1.5</td> <td>-</td>		out of 3		1.5	-
TBM ugrL	Flavour Profile	out of 10	-	7	-
Total Coliforms       - r/v100ml       -       -       -         Fead Coliforms       - r/v100ml       15       2       69         Hearectorpic Place Count (7 days)       - r/v100ml       2       1       1         Fead Stropcocccus       - r/v100ml       2       -       -         Fead Stropcocccus       - r/v100ml       2       -       1         Fead Stropcocccus       - r/v100ml       2       -       1         Fead Stropcocccus       - r/v100ml       2       -       -         Sulfas Reducing Bateria       - ry11 mL       >-110       -0.3       -0.3       -0.3         Sulfas Reducing Bateria       - ry11 mL       >-110       0.4       -9.       -       -         Theorethide Reducing Bateria       - ry11 mL       >-110       0.4       -9.       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -	Flavour Comment				
Total Coliforms       - r/v100ml       -       -       -         Fead Coliforms       - r/v100ml       15       2       69         Hearectorpic Place Count (7 days)       - r/v100ml       2       1       1         Fead Stropcocccus       - r/v100ml       2       -       -         Fead Stropcocccus       - r/v100ml       2       -       1         Fead Stropcocccus       - r/v100ml       2       -       1         Fead Stropcocccus       - r/v100ml       2       -       -         Sulfas Reducing Bateria       - ry11 mL       >-110       -0.3       -0.3       -0.3         Sulfas Reducing Bateria       - ry11 mL       >-110       0.4       -9.       -       -         Theorethide Reducing Bateria       - ry11 mL       >-110       0.4       -9.       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -	-				
Fead Coldroma environment Hearectropic Plane Cound (9 Airy) Hearectropic Plane Cound (9 Airy) Hearectropic Plane Cound (9 Airy) Hearectropic Plane Cound (9 Airy) Hearectropic Plane Cound (9 Airy) Fead Strephococcus environment Fead Strephococcus environment Fead Strephococcus environment Fead Strephococcus environment To Reducing Bateria environment Staffae Reducing Bateria environment Tion Reducing Bateria environment Staffae Reducing Bateria environment Ta do problems environment Plane Coerentoous Plane Coerentoous Plane Coerentoous Hardness high Low Assert from one for the series two years ago Hardness high Average Daily Production m1 Average Daily Production m2 Average Cound (9 Airy) Methy Strephococus Tationalitie Reducing Bateria environment Storage m3 Average Cound (9 Airy) Average Cound (9 Airy) A	THMs	ug/L	-	-	•
Fead Coldroma environment Hearectropic Plane Cound (9 Airy) Hearectropic Plane Cound (9 Airy) Hearectropic Plane Cound (9 Airy) Hearectropic Plane Cound (9 Airy) Hearectropic Plane Cound (9 Airy) Fead Strephococcus environment Fead Strephococcus environment Fead Strephococcus environment Fead Strephococcus environment To Reducing Bateria environment Staffae Reducing Bateria environment Tion Reducing Bateria environment Staffae Reducing Bateria environment Ta do problems environment Plane Coerentoous Plane Coerentoous Plane Coerentoous Hardness high Low Assert from one for the series two years ago Hardness high Average Daily Production m1 Average Daily Production m2 Average Cound (9 Airy) Methy Strephococus Tationalitie Reducing Bateria environment Storage m3 Average Cound (9 Airy) Average Cound (9 Airy) A					
Hearchropie Plane Count (6 4k hr) efk/i and. Hearchropie Plane Count (7 4k hr) efk/i and. Klebeadia efk/i and. Feel Streptococcus eff. Solfare Reducing Bateria erg/i and. Solfare Reducing Bateria erg/i and. Solfare Reducing Bateria erg/i and. Solfare Reducing Bateria erg/i and. Feel Streptococcus eff. Feel Streptococcus eff. Feel Streptococcus eff. Feel Streptococcus eff. Solfare Reducing Bateria erg/i and. Solfare Reducing Bateria erg ( and erg			E	•	-
Henestergine False Count (7 days) e rk/1 mL 202 2 2 108 Feed Strophonoccrus ch/100ml 2 1 1 1 Feed Strophonoccrus ch/100ml 2 1 1 1 Yeas ch/1 mL 2 110 0.3.3 0.3.3 Stiffse Reducing Bateria org/1 mL 2/10 0.4.9,3 0.3. Stiffse Reducing Bateria org/1 mL 2/10 0.4.9,3 0.3. Thioselface Reducing Bateria org/1 mL 2/10 0.4.9 Theon hours to operate plant per week 1 14 T & 0 problems borne to operate plant per week 1 14 T & 0 problems borne to operate plant per week 1 14 T & 0 problems borne to operate plant per week 1 14 T & 0 problems borne to operate plant per week 1 14 T & 0 problems borne to operate plant per week 1 14 T & 0 problems borne to operate plant per week 1 14 T & 0 problems borne to operate plant per week 1 14 T & 0 problems borne to operate plant per week 1 14 T & 0 problems borne to operate plant per week 1 14 T & 0 problems borne to operate plant per week 1 14 T & 0 problems borne to operate plant per week 1 14 T & 0 problems borne to operate plant per week 1 14 T & 0 problems borne to operate plant per week 1 14 T & 0 problems borne to operate plant per week 1 14 T & 0 problems borne to operate plant per week 1 14 T & 0 problems borne to operate plant per week 1 14 T & 0 problems borne to operate plant per week 1 14 T & 0 problems 1 Pathoton system fluxting program no 0 Stornege nd 3 Average Daily Production m1 Ave Theoretical Hydraulic Detemion, hr  7 Testmeta   Med/DR WR/CQA/RD/CD/Tb/TWR WR/CQA/RD/C					
Klobeadia       ch/100ml       -       -       -         Mola       ch/1 mL       1       1       1         Mola       ch/1 mL       1       1       1         Iom Reducing Bacteria       cry/1 mL       24       <0.3					
Feed Stropcoccus         ch/10nl         2         cl         1           Yeas         ch/1 ml         1         1         1           Yeas         ch/1 ml         5         cl         cl         cl           Tom Reducing Bateria         cry/1 ml         2         cl         cl         cl           Solias Reducing Bateria         cry/1 ml         2         cl         cl         cl           Thiosultare Reducing Bateria         cry/1 ml         2         10         cl         cl         cl           Taino Disting Bateria         cry/1 ml         2         10         cl         cl         cl           Plant Chernions         cry/1 ml         2         10         cl         cl         cl           Plant Chernions         cry/1 ml         2         no         cl         cl </td <td></td> <td></td> <td>202</td> <td>2</td> <td>103</td>			202	2	103
Molds       eful nu.       1       1       1       1       1         Yest       eful nu.       5       <1			1	-	
Yeas         efu1 al. ion Reducing Bacteria         5         -11         -1           Sulfas Reducing Bacteria         org/ ind. org/ ind.         24         -0.3         -0.3           Sulfas Reducing Bacteria         org/ ind. org/ ind.         >110         -0.3         -0.3           ThiomUntas Reducing Bacteria         org/ ind. org/ ind.         >110         0.4         >         -0.3           Tem Oxiging Bacteria         org/ ind. org/ ind.         >110         0.4         >         -           Plant Oxerations         org/ ind.         >110         0.4         >         -           Plant Oxerations         org/ ind.         >110         0.4         >         -           Plant Oxerations         org/ ind.         >10         0.4         >         -           Very Policitions         iow         -         -         -         -           Recycel Filter Backwath         no         -         -         -         -         -           Storage         m3         45         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -					1
Iron Reducing Bacteria         org/1 nul.         210         -0.3         -0.3           Solfae Reducing Bacteria         org/1 nul.         0.4         -0.3         -0.3           Solfae Reducing Bacteria         org/1 nul.         0.4         -0.3         -0.3           Toom Mark Reducing Bacteria         org/1 nul.         0.4         -0.3         -0.3           Iron Oxidizing Bacteria         org/1 nul.         >110         0.4         -0.3           Iron Oxidizing Bacteria         org/1 nul.         >10         0.4         -0.3           Plant Operationts         no         -0.3         -0.5           Plant Operationts         no         -0.5         -0.5           Plant Operationts         no         -0.5         -0.5           Recycel Filter Backwash         no         -0.5         -0.5           Storage         n3         45         -0.5         -0.5           Average Daily Production         n3         1601         -0.5         -0.5           Average Daily Production         n3         1601         -0.5         -0.5           Average Daily Production         n3         1601         -0.5         -0.5           Average Daily Production         n3					
Shifes Reducing Bacteria         org/1 ml.         24         -0.3         -0.3           Shifes Reducing Bacteria         org/1 ml.         >110         0.4         -0.3         -0.3           ThiomUnities Reducing Bacteria         org/1 ml.         >110         0.4         -0.3         -0.3           Plant Coertaions         org/1 ml.         >110         0.4         -0.3         -0.3           Plant Coertaions         org/1 ml.         >110         0.4         -0.3         -0.3           Plant Coertaions         org/1 ml.         >100         0.4         -0.3         -0.3           Premon hours to operaze plant per week         14         -         -         -           Recycel Filter Backwash         no         -         -         -           Distribution system fluching program         no         -         -         -           Storege Daily Production         n3         1601         -         -         -           Trestment         Math/R WPCQ_A/R/DUC12/Flu/TWR         Weekly Samphing Routine         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -					
Solidie Reducing Basteria     org/1 ml.     0.4     c0.3     0.3       Itonalviar, Relating Basteria     org/1 ml.     >110     c0.3     110       Part Overstoins     org/1 ml.     >10     c0.3     10       Part Overstoins     no     no     10     10       Part Overstoins     no     no     10     10       Part Overstoins     no     no     10     10       Recycel Filter Backwath     no     no     100     100       Stringe no string program     no     100     100       Aversto Denyip Production     m3     45     100       Aversto Denyip Production     m3     1001     100       Aver Theoretical Hydraulic Detention, hr.     gal     100     100       Veeh's Sampline Rowine     no     100     100       free Classing     no     100     100       Aver Theoretical Hydraulic Detention, hr.     no     100       Polidi     0     100     100       Aver Theoretical Hydraulic Detention, h					
Thioselfulae Refining Bacteria org/1 mL >110 0.4 10 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 110 0.4 11					
Iron Oxidizing Bacteria org/1 ml. >110 c0.3 110 Plant Operations Part Operations Part Operate plant per week T & O problems Hardness high low Recycel Filter Backwach Distribution system flushing program Sorage m3 Average Daily Production m4 Testment Weekly Samuling Routing free C12 transformed Poly Samuling Routing Free C2 Color Hardness Ma Provide Color Hardness Ma Provide Color Hardness Ma Polymer Alisating Soda Ash Distribution Soda Ash Distribution Foride Control Bay Ma Soda Ash Distribution Foride Control Bay Soda Ash Distribution Foride Control Bay Soda Ash Corrent Jow High Polymer Alisatinent Jow Josinfection T & O control Bay Soda Ash Corrent Jow Josinfection T & O control Bay Soda Ash Corrent Jow Josinfection T & O control Bay Soda Ash Corrent Jow Josinfection Foride Corrent Jow Josinfection Foride Control Bay Soda Ash Soda Ash So					
Plant Operations         14           Pranon hours to operate plant per week         14           T & O problems         no           Hardness         high low         -           Norrige Daily Production         m3           Averinge Call Classing Routine         Rew           Treatment         MedfulR WE/CgA/RD/Cl2/Flo/TWR           Weekly Sampting Routine         -           Politic         0           Politic         -           Politic         -           Averinge Classing Routine         -           Averinge Classing					
Person hours to operate plant per weak     14       T & O problems     no       Hardness     high low     -       Recycel Filter Backwash     no       Distribution system finshing program     no       Storage     m3     45       Average Daily Production     m3     1601       Average Daily Production     m3     1601       Average Daily Production     m3     45       Average College College     0,7     0,7       Treatment     0,7     0,7       Treatment     0,7     0,7       Weakly Sampting Routine fore C12     7     7       Important Person     7     7       Pid     -     -       Pide     -     -       Pide     -     -       Pide     -     -       Pide     -     -       Microbial     per month     4       Color     -     -       Microbial     per month     4       Chemical Dosing and Operating Strategy     -       Microbial     per month     4       Chemical Dosing and Operating Strategy     -       Ngiph     -     -       Soda Ash     current     -       Disinfection     -	and Caucing Descrite	or Bet mit	- 110	-0.0	140
Person hours to operate plant per weak     14       T & O problems     no       Hardness     high low     -       Recycel Filter Backwash     no       Distribution system finshing program     no       Storage     m3     45       Average Daily Production     m3     1601       Average Daily Production     m3     1601       Average Daily Production     m3     45       Average College College     0,7     0,7       Treatment     0,7     0,7       Treatment     0,7     0,7       Weakly Sampting Routine fore C12     7     7       Important Person     7     7       Pid     -     -       Pide     -     -       Pide     -     -       Pide     -     -       Pide     -     -       Microbial     per month     4       Color     -     -       Microbial     per month     4       Chemical Dosing and Operating Strategy     -       Microbial     per month     4       Chemical Dosing and Operating Strategy     -       Ngiph     -     -       Soda Ash     current     -       Disinfection     -					
Person hours to operate plant per weak     14       T & O problems     no       Hardness     high low     -       Recycel Filter Backwash     no       Distribution system finshing program     no       Storage     m3     45       Average Daily Production     m3     1601       Average Daily Production     m3     1601       Average Daily Production     m3     45       Average College College     0,7     0,7       Treatment     0,7     0,7       Treatment     0,7     0,7       Weakly Sampting Routine fore C12     7     7       Important Person     7     7       Pid     -     -       Pide     -     -       Pide     -     -       Pide     -     -       Pide     -     -       Microbial     per month     4       Color     -     -       Microbial     per month     4       Chemical Dosing and Operating Strategy     -       Microbial     per month     4       Chemical Dosing and Operating Strategy     -       Ngiph     -     -       Soda Ash     current     -       Disinfection     -	Plant Operations			L	L
Hardness high low - Recycel Filter Backwash - Distribution system flushing program - Storage - m3 - 45 Average Daily Production m3 - 1601 Aver. Theoretical Hydranlic Detention, hr 0.7 generation	Person hours to operate plant per v	veek	1	14	
Hardness high low - Recycel Filter Backwash - Distribution system flushing program - Storage - m3 - 45 Average Daily Production m3 - 1601 Aver. Theoretical Hydranlic Detention, hr 0.7 get	T & O moblems			-	Ì
Hardness high low - low - low - low - Recycel Filter Backwash  Distribution system flushing program  storage m3 45 Average Daily Production m3 1601 Average daily Pro	1 & O problems				
low - Recycel Filter Backwash	Hardness	high		mere were two years	a na segur
Recycel Filter Backwash no Distribution system flushing program no Storage m 3 45 Average Daily Production m3 1601 Average Daily Production m3 700 Treatment Mathew WCgA/Rfb/Cl2/Fla/TWR Weakly Sampling Routing free Cl2 77 total Cl2 7 particular 7 total Cl2 7 ph 7 Floride 7 Color 4 Hardness 7 Miterobial per month 4 Chemical Dosing and Operating Stratecy Coggulants current 4 Nate 10 Soda Ash 6 Current 4 Disinfection 4 Current 4 Disinfection 4 Disinfection 4 Current 4 Disinfection 4 Disinfection 4 Current 4 Disinfection 4 Di	1 for officer		1	-	
Distribution system fluihing program Sorage n.3 Average Daily Production m.3 Average Daily Production Average Daily Produc					
Distribution system fluihing program Sorage n.3 Average Daily Production m.3 Average Daily Production Average Daily Produc	Recycel Filter Backwash			DO	
Storage n3 45 Average Daily Production n3 1601 Ave. Theoretical Hydramic Detention, hr. Treatment 0,7 Work's Sampling Routine results 0,7 Treated free C12 7 total C12 7 temperature 7 pti 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,0	-				
Average Daily Production m3 0.7 Ave. Theoretical Hydraulic Detention, hr.  Treatment 0.7  Gal Machine WPL/GgA/R/0/C12/Flu/TWR  Weekly Sampling Routine free C12 total C1 tot	Distribution system flushing progra	ion.	1	no	
Average Daily Production m3 0.7 Ave. Theoretical Hydraulic Detention, hr.  Treatment 0.7  Gal Machine WPL/GgA/R/0/C12/Flu/TWR  Weekly Sampling Routine free C12 total C1 tot					5
Ave. Theoretical Hydraulic Detention, hr. Treatment Uear Sampling Routine Tree Cl2 Color For Cl2 Color Herdness Mn Fe Alkakinity Fe Alkakinity Fe Alkakinity Fe Congularus Doing and Coerating Strategy Congularus Coerating Strategy Coerating Strate			ļ		
gal         gal           Weekly Sampling Routine free C12         Raw         7           total C12         7         7           total C12         7         7           total C12         7         7           temperature         7         7           pH         7         7           Poide         0.25         -           Color         -         -           Man         -         -           Microbial         per month         -           Microbial Dosing and Operating Stratecy         -         -           Congularus         current         4         -           Alizabinity         10w         2.4         -           Polymer         current         4         -           Iow         2.4         -         -           Polymer         current         -         -           Iow         -         -         -           Soda Ash         current         -         -           Iow         1.5         -         -           Iogh         2.5         -         -           Soda Ash         current         - <td></td> <td></td> <td>1</td> <td></td> <td></td>			1		
Trestment Mafft/RVFR/CgAR.fb/Cl22/Flu/TWR Weekly Sampling Routine free Cl2 total Cl2 total Cl2 total Cl2 total Cl2 Floride Cl2 Floride Cl2 Color Hardness Floride Per Mon fre Alkatimity Mn Fe Alkatimity Hardness I Per month I Per Mon I Per	Ave. Theoretical Hydraulic Detention	on, hr.			1
Week/vsampling Routine         Rsw         Treated           free C12         7           tarte C12         7           tartbidsty         7           tartbidsty         7           tartbidsty         7           tartbidsty         7           tartbidsty         7           pit         -           Floride         0.25           Color         -           Marchess         -           Fe         -           Alkatimity         -           Microbial         per month         4           Chemical Docing and Operating Strategy         -           Coagularits         current         4           Igin         15         -           Nigh         15         -           Jow         -         -           Jow         1.5         -           Jow         1.5         -           Jow         -         -           Jow <t< td=""><td></td><td></td><td> </td><td></td><td></td></t<>					
free C12  total C12  total C12  temperature  Floride  Color  Herdness  Co	Transforment				
totel C12 7 totel Kitsky 7 totel Ki	Trestment				u/TWR
narbidisy7temperature7Pid7Floride0.25Color-Hardness-Min-Fe-Alksbinity-Kicrobialper monthAlksbinity4CoegulantscurrentJow2.4high15Kypepass 100polymercurrentJow-Jow-Jow-Jow-Jow-Jow-Jow-Jow-Jow-Jow-Jow-Jow-Jow-Jow-Jow-Jow-Jow-Jow-JoinfectioncurrentJoynent-Joynent-Joynent-Joynent-Joynent-Joynent-Joynent-Joynent-Joynent-Joynent-Joynent-Joynent-Joynent-Joynent-Joynent-Joynent-Joynent-Joynent-Joynent-Joynent-Joynent-Joynent-Joynent-Joynent-	Weekly Sampling Routine			Treated	u/TWR
temperatures   7 pit	Weekly Sampling Routine free Cl2			Treated 7	w/TWR
phí Floride	Weekly Sampling Routine free Cl2 total Cl2			Treated 7 7	<u>w/TWR</u>
Floride     0.25       Color     -       Hardness     -       Man     -       Fe     -       Alkakinity     -       Microbial     per month     4       Chernical Dosing and Oversting Stratesy     -       Cogularuts     current     4       Chernical Dosing and Oversting Stratesy     -       Cogularuts     current     4       Polymer     adijustment     based on turbidity       Polymer     current     -       Ivgh     -     -       Nigh     -     -       Soda Ash     current     -       Ivgh     -     -       Soda Ash     current     -       Ivgh     -     -       Ivgh <t< td=""><td>Weekly Sampling Routine free Cl2 total Cl2 mrbidity</td><td></td><td></td><td>Treated 7 7 7 7</td><td>₽/TWR</td></t<>	Weekly Sampling Routine free Cl2 total Cl2 mrbidity			Treated 7 7 7 7	₽/TWR
Color Hardness Mn Fe Alkatimity Viscrobial per month Alkatimity Commical Dosing and Operating Strategy Commical Dosing and Operating Strategy Folymer Polymer Polymer Polymer Polymer Soda Ash Current Iow Iow Isinfection Current Iow Isinfection Current Iow Isinfection Current Iow Isinfection Current Iow Isinfection Current Iow Isinfection Current Iow Isinfection Current Iow Isinfection Current Iow Isinfection Current Iow Isinfection Current Iow Isinfection Current Iow Isinfection Current Iow Isinfection Current Iow Isinfection Current Iow Isinfection Current Iow Isinfection Current Isinfection Current Isinfection Current Isinfection Current Isinfection Current Isinfection Current Isinfection Current Isinfection Current Isinfection Current Isinfection Current Isinfection Current Isinfection Current Isinfection Current Isinfection Current Isinfection Current Isinfection Current Isinfection Current Isinfection Current Isinfection Current Isinfection Current Isinfection Current Isinfection Current Isinfection Current Isinfection Current Isinfection Current Isinfection Current Isinfection Current Isinfection Current Isinfection Current Isinfection Current Isinfection Current Isinfection Current Isinfection Current Current Isinfection Current Current Current Current Current Current Current Current Current Current Current Current Current Current Current Current Curr	Weekly Sampling Routine free Cl2 total Cl2 nurbidity temperature			Treated 7 7 7 7	±/TWR
Hardness     -       Mn     -       Fe     -       Alkabinity     -       Microbial     per month     4       Conseniand Operating Stratesy     -       Alkabinity     -       Alkabinity     -       Polymer     -       adjustment     -       Nigh     -       Soda Ash     -       Current     -       Jugh     -       Adjustment     -       Disinfection     -       Iow     1.5       high     2.5       High     -       Iow     -       Iow     -       Iow     -       Iow     -       Iow     -       High     -	Weekly Sampling Routine free CI2 total CI2 barbidity temperature pH			Treated 7 7 7 7 7 -	w/TWR
Mr. Fe Alkakinity	Weekly Sampling Routine free C12 total C12 narbidity temperature pH Floride			Treated 7 7 7 7 7 -	u/TWR
Fe     -       Alkshinity     -       Microbial     per month     4       Chemical Dosing and Operating Strategy     4       Constraint     4       Constraint     2.4       high     15       type     pass 100       adjustment     based on turbidity       Polymer     -       low     -       high     -       bigh     -       Vype     -       adjustment     -       bow     -       high     -       bow     -       high     -       bow     -       bow     -       high     -       bow     -       bigh     2.5       type     -       adjustment     -       bigh     -	Weekly Sampling Routine free Cl2 total Cl2 mrbidity temperature pH Floride Color			Treated 7 7 7 7 7 -	w/TWR
Alkabinity     -       Microbial     per month     4       Chemical Dosing and Operating Strategy     -       Coagulants     current     4       Iow     2.4       high     15       hype     pass 100       adjustment     based on turbidity       Polymer     current       Iow     -       high     -       high     -       Soda Ash     current       Soda Ash     current       Jow     -       bigh     -       adjustment     -       bigh     -       jugh     -       jugh     -       jugh     -       jugh     -       adjustment     -       low     1.5       high     2.5       jype     C12 gas       adjustment     -       low     -       low     -       jugh     -	Weekly Sampling Routine free Cl2 total Cl2 barbidity lemperature pH Floride Color Hardness			Treated 7 7 7 7 7 -	wTWR
Microbial     per month     4       Chemical Dosing and Operating Stratecy     4       Cogularuis     current     4       low     2,4       high     15       stype     pass 100       adjustment     based on turbidity       Polymer     -       low     -       high     -       type     -       adjustment     -       bow     -       high     -       type     -       sdjustment     -       bow     -       bow     -       bigh     -       bigh     -       bow     -       bigh     -       bow     -       bigh     2.5       type     C12 gas       adjustment     -       bigh     -       iow     -       bigh	Weekly Sampling Routine free Cl2 total Cl2 mrbidity temperature pH Floride Color			Treated 7 7 7 7 7 -	wTWR
Chemical Dosing and Operating Strategy Coagulants current 4 Iow 2.4 Figh 15 type pass 100 adjustment based on turbidity Polymer current - Iow - Itigh - Soda Ash current - Soda Ash - Soda Ash current - Soda Ash - Soda Ash current - Soda Ash - Soda	Weekly Sampling Routine free C12 total C12 mrbidity temperature pH Floride Color Hardness Mn Fe			Treated 7 7 7 7 7 -	w/TWR
Coagulants     current     4       low     2.4       high     15       bype     pass 100       adjustment     based on turbidity       Polymer     current     -       low     -       high     -       high     -       high     -       high     -       soda Ash     current       low     -       high     -       bigh     -       bigh     -       bigh     -       low     -       bigh     -       bigh     2.5       bigh     2.5       bigh     -       low     -       low     -       low     -       bigh     -       bigh     -       forcentrol     current       low     -       high     -       low     -       bigh     -       low     -       low <td< td=""><td>Weekly Sampling Routine free C12 total C12 marbidity temperature pH Flotide Color Hardness Mn</td><td></td><td></td><td>Treated 7 7 7 7 7 -</td><td>w/TWR</td></td<>	Weekly Sampling Routine free C12 total C12 marbidity temperature pH Flotide Color Hardness Mn			Treated 7 7 7 7 7 -	w/TWR
low     2.4       high     15       type     pass 100       adjustment     based on turbidity       low     -       low     -       high     -       high     -       high     -       bw     -       high     -       adjustment     -       bw     -       bw     -       bw     -       bw     -       bigh     -       bigh     2.5       high     2.5       high     2.5       high     2.5       high     2.5       high     -       low     -       low     -       high     -       high     -       low     -       high     -       low     -       high     -       high     -       low     -       high     -       low     -       high     -       high     -       low     -       high     -       high     -       low     -       high     -	Weekly Sampling Routine free C12 total C12 narbidary temperature pH Floride Color Hardness Mn Fe Alkeiinity Microbiał			Treated 7 7 7 7 7 -	w/TWR
high     15       kiph     pass 100       adjustmenti     based on turbidity       Polymer     -       low     -       high     -       high     -       high     -       bow     -       high     -       bow     -       box     -       bigh     -       adjustment     -       bigh     2.5       bigh     2.5       bigh     2.5       bigh     -       adjustment     -       low     -       bigh     - </td <td>Weekly Sampling Routine free C12 total C12 barbiday lemperature pH Floride Color Hardness Mn. Fe Alkshinity Microbial Chemical Dosing and Operating. St</td> <td>nategy</td> <td></td> <td>Treated 7 7 7 0.25 - - - - 4</td> <td>w/TWR</td>	Weekly Sampling Routine free C12 total C12 barbiday lemperature pH Floride Color Hardness Mn. Fe Alkshinity Microbial Chemical Dosing and Operating. St	nategy		Treated 7 7 7 0.25 - - - - 4	w/TWR
type         pess 100           adjustment         based on turbidity           Polymer         current         -           low         -         -           high         -         -           type         -         -           type         -         -           Soda Ash         current         -           bigh         -         -           bigh         2.5         -           bigh         -         - <tr tb=""></tr> bigh         - <t< td=""><td>Weekly Sampling Routine free C12 total C12 narbidary temperature pH Floride Color Hardness Mn Fe Alkeiinity Microbiał</td><td>rategy current</td><td></td><td>Treated 7 7 7 7 0.25 - - - - 4 4</td><td>w/TWR</td></t<>	Weekly Sampling Routine free C12 total C12 narbidary temperature pH Floride Color Hardness Mn Fe Alkeiinity Microbiał	rategy current		Treated 7 7 7 7 0.25 - - - - 4 4	w/TWR
adjustment     based on turbidity       Polymer     current     -       low     -       high     -       high     -       adjustment     -       Soda Ash     current     -       bw     -       bw     -       bw     -       bigh     -       bigh     -       bigh     -       bigh     -       bigh     2.5       high     2.5       high     2.5       bigh     2.5       bigh     2.5       bigh     2.5       bigh     -       adjustment     based on residual       fow     -       bigh     -       bigh<	Weekly Sampling Routine free C12 total C12 barbiday lemperature pH Floride Color Hardness Mn. Fe Alkshinity Microbial Chemical Dosing and Operating. St	rategy current low		Treated 7 7 7 - 0.25 - - - - - - - - - - - - - - - - - - -	w/TWR
Polymer     current     -       low     -       high     -       kigh     -       adjustment     -       Soda Ash     current       low     -       bigh     -       adjustment     -       bigh     -       bigh     -       bigh     -       bigh     2.5       high     2.5       high     2.5       bigh     -       adjustment     -       low     1.5       high     2.5       high     2.5       bype     -       adjustment     -       low     -       low     -       high     -       low     -       high     -       low     -       high     -       low     -       low     1       high     1       low     1       high     1       high     1	Weekly Sampling Routine free C12 total C12 barbiday lemperature pH Floride Color Hardness Mn. Fe Alkshinity Microbial Chemical Dosing and Operating. St	rategy current low high		Treated 7 7 7 0.25 - - 4 4 2.4 15	w/TWR
low     -       high     -       kigh     -       Kype     -       adjustment     -       low     -       high     -       bigh     2.5       kigh     2.5       kigh     2.5       type     C12 gas       adjustment     -       low     -       low     -       low     -       kigh     -       low     -       low     1       low     1       kigh     1       kigh     1       adjustment     corstant	Weekly Sampling Routine free C12 total C12 barbiday lemperature pH Floride Color Hardness Mn. Fe Alkshinity Microbial Chemical Dosing and Operating. St	rategy current low high type		Treated 7 7 7 0.25 - - - - 4 4 2.4 15 ppss 100	w/TWR
high     -       kijdstremti     -       adijustremti     -       low     -       high     -       high     -       bigh     -       adjustremti     -       bigh     -       bigh     -       adjustremti     -       bigh     2.4       bigh     2.5       high     2.5       high     2.5       bigh     2.5       bigh     2.5       high     2.5       high     2.5       high     -       adjustremti     -       bigh     -       ilow     -       bigh     -       ilow     -       bigh     1       bigh     1       bigh     1       bigh     1	Weekly Sampling Routine free Cl2 total Cl2 narbiday temperature pH Floride Color Hardness Mn. Fe Alkatinity Microbial <u>Chemical Dosing and Operating So</u> Coagnilants	rategy current low high type adjustment		Treated 7 7 7 0.25 - - - - 4 4 2.4 15 ppss 100	w/TWR
Vpe         -           adjustment         -           Soda Ash         current         -           low         -         -           bigh         -         -           adjustment         -         -           Disinfection         Current         2.4           Disinfection         1.5         -           bigh         2.5         -           bigh         -         -           bigh <t< td=""><td>Weekly Sampling Routine free C12 total C12 barbiday lemperature pH Floride Color Hardness Mn. Fe Alkshinity Microbial Chemical Dosing and Operating. St</td><td>ntery current low high type adjustment current</td><td></td><td>Treated 7 7 7 0.25 - - - - 4 4 2.4 15 ppss 100</td><td>w/TWR</td></t<>	Weekly Sampling Routine free C12 total C12 barbiday lemperature pH Floride Color Hardness Mn. Fe Alkshinity Microbial Chemical Dosing and Operating. St	ntery current low high type adjustment current		Treated 7 7 7 0.25 - - - - 4 4 2.4 15 ppss 100	w/TWR
adjustment         -           Soda Ash         current         -           logh         -         -           high         -         -           adjustment         -         -           Disinfection         current         2.4           low         1.5         -           high         2.5         -           high         2.5         -           low         1.5         -           adjustment         based on residual         -           flow         -         -           low         -         -           high         -         -           low         -         -           high         -         -           high         -         -           flow         -         -           flow         1         -           low         1         -           high         1         -           low         1         -           high         1         -	Weekly Sampling Routine free Cl2 total Cl2 narbiday temperature pH Floride Color Hardness Mn. Fe Alkatinity Microbial <u>Chemical Dosing and Operating So</u> Coagnilants	rategy current low high type adjustment current low		Treated 7 7 7 0.25 - - - - 4 4 2.4 15 ppss 100	w/TWR
Soda Axh     current     -       low     -       high     -       adjustment     -       Disinfection     Current     2.4       low     1.5       high     2.5       high     2.5       high     2.5       adjustment     based on residual       T & O control     current       low     -       high     -       high     -       flow     -       low     1       low     1       low     1       low     1       high     1       adjustment     constant	Weekly Sampling Routine free Cl2 total Cl2 narbiday temperature pH Floride Color Hardness Mn. Fe Alkatinity Microbial <u>Chemical Dosing and Operating So</u> Coagnilants	rategy current low high type adjustment current low high		Treated 7 7 7 0.25 - - - - 4 4 2.4 15 ppss 100	u/TWR
low     -       high     -       adjustment     -       Disinfection     Current     2.4       low     1.5       high     2.5       type     C12 gas       adjustment     -       low     -       ilow     -       bised on residual     -       low     -       low     -       low     -       high     -       low     -       high     -       low     -       low     -       low     -       low     -       low     -       low     1       low     1       low     1       high     1       adjustment     constant	Weekly Sampling Routine free Cl2 total Cl2 narbiday temperature pH Floride Color Hardness Mn. Fe Alkatinity Microbial <u>Chemical Dosing and Operating So</u> Coagnilants	rategy current low high type adjustment current low high type		Treated 7 7 7 0.25 - - - - 4 4 2.4 15 ppss 100	w/TWR
bigh     -       adjustment     -       Disinfection     current       low     1.5       high     2.5       type     Cf2 gas       adjustment     based on residual       T & O control     current       low     -       high     -       high     -       flore     -       high     -       high     -       flore     -       high     -       ighustment     -       flore     -       high     -       ighustment     -       low     1       high     1       high     1       high     1	Weekly Sampling Routine free Cl2 total Cl2 narbiday temperature pH Floride Color Hardness Mn Fe Alkainnity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coagniants	ategy current low high djustment current low high type adjustment		Treated 7 7 7 0.25 - - - - 4 4 2.4 15 ppss 100	w/TWR
adjustment     -       Disinfection     current     2.4       low     1.5       high     2.5       high     2.5       sdjustment     based on residual       low     -       low     -       low     -       low     -       low     -       low     -       high     -       low     -       low     -       high     -       low     1       low     1       low     1       low     1       low     1       low     1       high     1	Weekly Sampling Routine free Cl2 total Cl2 narbiday temperature pH Floride Color Hardness Mn. Fe Alkatinity Microbial <u>Chemical Dosing and Operating So</u> Coagnilants	ntery current low high type adjustment current low high type adjustment current		Treated 7 7 7 0.25 - - - - 4 4 2.4 15 ppss 100	<u>u/TWR</u>
Disinfection current 2.4 low 1.5 high 2.5 type C12 gas adjustment based on residual current - low - high - floride current 1 low 1 low 1 high 1 low 1 high 1 high 1 now 1 high 1 djustment constant	Weekly Sampling Routine free Cl2 total Cl2 narbiday temperature pH Floride Color Hardness Mn Fe Alkainnity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coagniants	ntery current low high type adjustment current low high type adjustment current kow		Treated 7 7 7 0.25 - - - - 4 4 2.4 15 ppss 100	w/TWR
low     1.5       high     2.5       type     C12 gas       adjustment     based on residual       T & O control     -       low     -       high     -       kiph     -       bype     -       adjustment     -       bigh     -       adjustment     -       low     1       high     1       low     1       high     1       high     1	Weekly Sampling Routine free Cl2 total Cl2 narbiday temperature pH Floride Color Hardness Mn Fe Alkainnity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coagniants	ntery current low high type adjustment current low high type adjustment current low high		Treated 7 7 7 0.25 - - - - 4 4 2.4 15 ppss 100	w/TWR
high     2.5       type     Cl2 gas       adjustment     based on residual       T&O control     -       low     -       high     -       low     1       high     1       high     1	Weekly Sampling Routine free C12 total C12 narbiday temperature pH Floride Color Hardness Mn Fe Alkainnity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coagniants	ntery current low high sdjustment current low high sdjustment current low high sdjustment.	Raw	Treated 7 7 7 0.25 - - - - 4 4 4 2.4 15 pass 100 based on turbidity - - - - - - - - - - - - -	w/TWR
type     C12 gas       adjustment     based on residual       T & O control     -       low     -       high     -       djustment     -       sdjustment     -       Floride     current       low     1       high     1       flow     1       sdjustment     constant	Weekly Sampling Routine free Cl2 total Cl2 barbiday lemperature pH Floride Color Hardness Mn Fe Alkalinity Microbial Chemical Dosing and Operating St Cosgulants Polymer Soda Ash	ntery current low high type adjustment current low high type adjustment current kow high adjustment current	Raw	Treated 7 7 7 0.25 - - - 4 4 4 2.4 15 pass 100 based on turbidity - - - - - - - - - - - - -	w/TWR
adjustment based on residual current - ight	Weekly Sampling Routine free Cl2 total Cl2 barbiday lemperature pH Floride Color Hardness Mn Fe Alkalinity Microbial Chemical Dosing and Operating St Cosgulants Polymer Soda Ash	ratery current low high type adjustment current low high type adjustment current low high adjustment current low	Raw	Treated 7 7 7 7 0.25 - - - 4 4 2.4 15 pass 100 based on turbidity - - - - - - - - - - - - -	⊎/T₩R
T & O control current - low - high - type - adjustment - Floride current 1 low 1 high 1 adjustment constant	Weekly Sampling Routine free Cl2 total Cl2 barbiday lemperature pH Floride Color Hardness Mn Fe Alkalinity Microbial Chemical Dosing and Operating St Cosgulants Polymer Soda Ash	ntery current low high type adjustment current low high type adjustment current low high adjustment current low high high high high	Raw	Treated 7 7 7 0.25 - - - 4 4 2.4 15 pass 100 based on turbidity - - - - - - - - - - - - -	w/TWR
low - high - type - adjustment - Floride current 1 low 1 high 1 adjustment constant	Weekly Sampling Routine free Cl2 total Cl2 barbiday lemperature pH Floride Color Hardness Mn Fe Alkalinity Microbial Chemical Dosing and Operating St Cosgulants Polymer Soda Ash	ntery current low high type adjustment current low high type adjustment current low high adjustment current low high type	Raw	Treated 7 7 7 7 0.25 - - - - - - - - - - - - -	w/TWR
type - adjustment - Floride current 1 low 1 high 1 adjustment constant	Weekly Sampling Routine free Cl2 total Cl2 barbiday lemperature pH Floride Color Hardness Mn Fe Alkalinity Microbial Chemical Dosing and Operating St Cosgulants Polymer Soda Ash	ntery current low high type adjustment current low high adjustment current low bigh adjustment current low bigh adjustment current low	Raw	Treated 7 7 7 7 0.25 - - - - - - - - - - - - -	w/TWR
adjustment - Floride current ] low 1 high 1 adjustment constant	Weekly Sampling Routine free Cl2 total Cl2 narbiday temperature pH Flocide Color Hardness Mn. Fe Alkatinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coagniants Polymer Soda Ash Disinfection	ntery current low high sijustment current low high high sijustment current low high adjustment current low high adjustment current low adjustment current current current current low	Raw	Treated 7 7 7 7 0.25 - - - - - - - - - - - - -	w/TWR
adjustment - Floride current ] low 1 high 1 adjustment constant	Weekly Sampling Routine free Cl2 total Cl2 narbiday temperature pH Flocide Color Hardness Mn. Fe Alkatinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coagniants Polymer Soda Ash Disinfection	ntery current low high type adjustment current low high type adjustment current low high adjustment low high type adjustment current low high low high low high low high low	Raw	Treated 7 7 7 7 0.25 - - - - - - - - - - - - -	w/TWR
low 1 high 1 adjustment constant	Weekly Sampling Routine free Cl2 total Cl2 narbiday temperature pH Flocide Color Hardness Mn. Fe Alkatinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coagniants Polymer Soda Ash Disinfection	ntery current low high type adjustment current low high type adjustment current low high adjustment current low high type adjustment current low high type	Raw	Treated 7 7 7 7 0.25 - - - - - - - - - - - - -	w/TWR
high 1 adjustment constant	Weekly Sampling Routine free C12 total C12 narbiday HF Floride Color Hardness Mn Fe Alkelinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coggniants Polymer Soda Ash Disinfection	ntery current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	Raw	Treated 7 7 7 7 0.25 - - - - - - - - - - - - -	w/TWR
adjustment constant	Weekly Sampling Routine free Cl2 total Cl2 narbiday temperature pH Flocide Color Hardness Mn. Fe Alkatinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coagniants Polymer Soda Ash Disinfection	rdery current low high type adjustment current low high djustment current low high adjustment current low high type adjustment current low high type adjustment current low	Raw	Treated 7 7 7 7 0.25 - - - - - - - - - - - - -	w/TWR
	Weekly Sampling Routine free C12 total C12 narbiday HF Floride Color Hardness Mn Fe Alkelinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coggniants Polymer Soda Ash Disinfection	ntery current low high sdjustment current low high type adjustment current low high sdjustment current low high type adjustment current low high type adjustment current low high type low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low low high low high low high low high low low high low low high low low high low low high low low high low low high low low high low high low low low high low low low high low low low high low high low low low low low low low low low low	Raw	Treated 7 7 7 7 0.25 - - - - - - - - - - - - -	w/TWR
Copper sultate in RWR no	Weekly Sampling Routine free C12 total C12 narbiday HF Floride Color Hardness Mn Fe Alkelinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coggniants Polymer Soda Ash Disinfection	ntery current low high type adjustment current low high dijustment current low high adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type	Raw	Treated 7 7 7 7 0.25 - - - 4 4 2.4 15 pass 100 based on turbidity - - - - - - - - - - - - -	w/TWR
	Weeklv Sampling Routine free C12 total C12 narbiday lemperature pH         Floride         Color         Hardness         Mn         Fe         Alkalinity         Microbial         Chemical Dosing and Operating Str         Coagulants         Polymer         Soda Ash         Disinfection         T & O control         Floride	ntery current low high type adjustment current low high djustment current low high adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high djustment current low high djustment current low high adjustment current low high adjustment current low high djustment current low high adjustment current low high djustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low adjustment current low high adjustment current low adjustment current low	Raw	Treated 7 7 7 7 0.25 - - - 4 4 4 4 4 4 4 4 4 4 4 4 4	w/TWR

			MANNING 27-Jun-94	
Type of Sample		Raw	Treated	Distributed
Temperature	deg C	21.7	21.2	21.2
pH	-	7.2	7.1	7
Conductivity	Miro ohma/c	350	360	370
Turbidity	NTU	1.5	2.4	0.27
Total Chlorine	mg/L	NA	0.82	0.41
Free Chlorine	mg/L	NA	0.43	0.14
Color	TCU	15	0	0
Ammonia	mg/L	0.002		[-
Odour Type		grassy	chlorine	_
Odour Intensity	out of 3	0.5	1	[]
Flavour Profile	out of 10	NA	l*	1.
Flavour Comment	0010110	141		[
THMs	ug/L		183	182
	ug c		100	102
Total Coliforms	cfu/100ml	18	<1	<1
Fecal Coliforns	cfu/100ml	<1	<1	<1
Heterotropic Plate Count (48 hr)	cfu/1 mL	75		
			1	2
Heterotropic Plate Count (7 days)		1425	2	468
Klebsiella	cfu/100ml	<1	<1	<1
Fecal Streptococcus	cfu/100ml	2	<1	<1
Molds	cfu/1 mL	1	0	<1
Yeast	cfu/1 mL	13	<1	2
Iron Reducing Bacteria	org/1 mL	>110	<0.3	<0.3
Sulfate Reducing Bacteria	org/1 mL	2	<0.4	<0.3
Sulfite Reducing Bacteria	org/1 mL	>110	<0.3	<0.3
Thiosulfate Reducing Bacteria	org/1 mL	>110	2	110
Iron Oxidizing Bacteria	org/1 mL	>110	<0.3	4
	-			
Plant Operations Person hours to operate plant per v	veek.		25	
T & O problems			yes	them only a
Hardness	hiah		assosiated with pone 300	A PARTI OVEL
Paruness	high			
	low		150	
Recycel Filter Backwash			high in winter	
RECYCEL FILLEL DECK WEST			no	
Distribution system flushing progra	<b>1</b> 00		-	
Distionion system number proge				
	m3		82	
Storage	m3			
Storage Average Daily Production	m3 m3		455	
Storage Average Daily Production	m3 m3			
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti	m3 m3	פרט פ	455 4.3	1/TUR
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment	m3 m3		455 4.3 /CgA/Ast/Clt/Cl2/Rfl	t/TWR
Storage Average Daily Production Ave: Theoretical Hydramic Detenti Treatment Weekly Sampling Routine	m3 m3	RwR	455 4.3 /CgA/Aer/Cir/Cl2/RfJ Treated	L/TWR
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12	m3 m3		455 4.3 /CgA/Aet/Clt/Cl2/Rfl Treated 7	L/TWR
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12	m3 m3	Raw	455 4.3 / <u>CgA/Aer/Ch/Cl2/Rfl</u> Treated 7 7	LTWR
Storage Average Daily Production. Ave: Theoretical Hydraulic Detenti Treatment. <u>Weekly Sampling Routine</u> free C12 total C12 total C12 tarbidity	m3 m3		455 4.3 / <u>CRA/Act/Clt/Cl2/Rfl</u> Treated 7 7 7	eTwr
Storage Average Daily Production Ave. Theoretical Hydranic Detenti Treatment Weekly <u>Sampling Routine</u> free Cl2 total Cl2 total Cl2 turbidity	m3 m3	Raw 7	455 4.3 //CRA/Act/Cltr/Cl2/Rfl Treated 7 7 7 0	2TWR
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 total C12 tothicity temperature pH	m3 m3	Raw	455 4.3 //CRA/Antr/Cltr/Cl2/Rfl Treated 7 7 7 0 7	eTwr
Storage Average Daily Production. Ave: Theoretical Hydraulic Detenti Treatment <u>Weekly Sampling Routine</u> free C12 totola C12 torbidity temperature pH Fforide	m3 m3	Raw 7	455 4.3 (CgA/Act/Chr/Cl2/Rfl Treated 7 7 7 0 7 7 7	eTwr
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Samubing Routing free C12 total C12 total C12 tarbidity temperature pH Floride Color	m3 m3	Raw 7 7 1	455 4.3 Tresled 7 7 7 0 7 7 1 1	PTWR
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12	m3 m3	Raw 7 7	455 4.3 (CgA/Act/Chr/Cl2/Rfl Treated 7 7 7 0 7 7 7	vTwr
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment Weekly Samubing Routine free C12 total C12 tota	m3 m3	Raw 7 7 1	455 4.3 Tresled 7 7 7 0 7 7 1 1	r/TWR
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment <u>Weekly Sampling Routine</u> free C12 totola C12 totolad C12 t	m3 m3	Raw 7 7 1 1	455 4.3 /CgA/Aet/Chr/Cl2/R.0 Treated 7 7 7 0 7 7 1 1 1	VTWR
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Samobing Routine free C12 total C12 total C12 total C12 total C12 total C12 control C12 control C12 color Hardness Man Fe	m3 m3	Rarw 7 7 1 1 1 1	455 4.3 <i>CogA/Aex/Cbr/C12/Rfl</i> Treated 7 7 7 0 7 7 1 1 1 1 1	VTWR
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Samobing Routine free C12 total C12 total C12 total C12 total C12 total C12 control C12 control C12 color Hardness Man Fe	m3 m3	Raw 7 7 1 1 1	455 4.3 /CgA/Aet/Chr/Cl2/R.0 Treated 7 7 7 0 7 7 1 1 1	UTWR
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 torbidity temperature pH Floride Color Hardness Mn Fe Alkalimity	m3 m3	Rarw 7 7 1 1 1 1	455 4.3 <i>CogA/Aex/Cbr/C12/Rfl</i> Treated 7 7 7 0 7 7 1 1 1 1 1	vTWR
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment Weekly Samubing Routine free C12 total C12 tota	m3 m3 on, hr.	Rarw 7 7 1 1 1 1	455 4.3 /CgA/Aet/Cltr/Cl2/Rfl 7 7 7 7 7 7 7 1 1 1 1 1 1 1 1 8	LTWR
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Samubing Routing free C12 total C12 total C12 tarbidity temperature pH Floride Color	m3 m3 on, hr.	Rarw 7 7 1 1 1 1	455 4.3 Trested 7 7 7 0 7 7 0 7 7 1 1 1 1 1 1 1	LTWR
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment Weekly Samubing Routine free C12 total C12 tota	m3 m3 on, hr. per month mery current low	Rarw 7 7 1 1 1 1	455 4.3 <i>CogA/Aet/Cbr/Cl2/Rfl</i> 7 7 7 7 0 7 7 7 1 1 1 1 1 1 1 1 8 <i>6</i> 5 65	vTWR
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment Weekly Samubing Routine free C12 total C12 tota	m3 m3 on, hr. per month merey current	Rarw 7 7 1 1 1 1	455 4.3 /CgA/Aet/Chr/Cl2/Rfl 7 7 7 7 7 7 1 1 1 1 1 1 1 8 	L/TWR
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment Weekly Samubing Routine free C12 total C12 tota	m3 m3 on, hr. per month mery current low	Rarw 7 7 1 1 1 1	455 4.3 <i>CogA/Aet/Cbr/Cl2/Rfl</i> 7 7 7 7 0 7 7 7 1 1 1 1 1 1 1 1 8 <i>6</i> 5 65	UTWR
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment Weekly Samubing Routine free C12 total C12 tota	m3 m3 on, hr.	Rarw 7 7 1 1 1 1	455 4.3 /CgA/Aet/Ctr/Cl2/Rfl 7 7 7 7 7 0 7 7 7 1 1 1 1 1 1 1 1 1 8 	VTWR
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment Weekly Samphing Routine free C12 total C12 tarbitity temperature pH Floride Color Hardness Ma Fe Allealimity Microbial Chemical Dosing and Operating St Coggulants	m3 m3 on, hr. per month micry current low high type	Rarw 7 7 1 1 1 1	455 4.3 Treated 7 7 7 0 7 7 0 7 7 1 1 1 1 1 1 1 1 1 1 1	LTWR
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment Weekly Samphing Routine free C12 total C12 tarbitity temperature pH Floride Color Hardness Ma Fe Allealimity Microbial Chemical Dosing and Operating St Coggulants	m3 m3 on, hr. per month merry current low high type adjustment	Rarw 7 7 1 1 1 1	455 4.3 Treated 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	LTWR
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment Weekly Samphing Routine free C12 total C12 tarbitity temperature pH Floride Color Hardness Ma Fe Allealimity Microbial Chemical Dosing and Operating St Coggulants	m3 m3 on, hr. per month micry current low high type adjustment current low	Rarw 7 7 1 1 1 1	455 4.3 Treated 7 7 7 0 7 7 0 7 7 0 7 7 0 7 7 1 1 1 1 1	UTWR
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment Weekly Samphing Routine free C12 total C12 tarbitity temperature pH Floride Color Hardness Ma Fe Allealimity Microbial Chemical Dosing and Operating St Coggulants	m3 m3 on, hr.	Rarw 7 7 1 1 1 1	455 4.3 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	UTWR
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment Weekly Samphing Routine free C12 total C12 tarbitity temperature pH Floride Color Hardness Ma Fe Allealimity Microbial Chemical Dosing and Operating St Coggulants	m3 m3 on, hr. per month micry current low high type adjustment current low high type type	Rarw 7 7 1 1 1 1	455 4.3 Treated 7 7 7 0 0 7 7 0 7 7 1 1 1 1 1 1 1 1 1 1	LTWR
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment Weekly Samobing Routine free C12 total C12 total C12 total C12 total C12 total C12 Color Hardness Ma Fe Alkalinity Microbial Chemical Dosing and Operating St Cogulants	m3 m3 on, hr. per month mtery current low high type adjustment current low high type adjustment	Rarw 7 7 1 1 1 1	455 4.3 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	LTWR
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment Weekly Samphing Routine free C12 total C12 tarbitity temperature pH Floride Color Hardness Ma Fe Allealimity Microbial Chemical Dosing and Operating St Coggulants	m3 m3 on, hr. per month <u>retery</u> current low high type adjustment current low high type adjustment current	Rarw 7 7 1 1 1 1	455 4.3 //CgA/Aet/Cto/Cto/Cto/Cto/Rfl 7 7 7 7 7 7 7 1 1 1 1 1 1 1 1 1 1 1 1	UTWR
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment Weekly Samobing Routine free C12 total C12 total C12 total C12 total C12 total C12 Color Hardness Ma Fe Alkalinity Microbial Chemical Dosing and Operating St Cogulants	m3 m3 on, hr. per month mery current low high type adjustment current low high type adjustment current low	Rarw 7 7 1 1 1 1	455 4.3 Treated 7 7 7 0 7 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1	LTWR
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment Weekly Samobing Routine free C12 total C12 total C12 total C12 total C12 total C12 Color Hardness Ma Fe Alkalinity Microbial Chemical Dosing and Operating St Cogulants	m3 m3 on, hr. per mosth mery current low high type adjustment current low high type adjustment current low high type	Rarw 7 7 1 1 1 1	455 4.3 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	UTWR
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment Weekly Samubing Routine free C12 total C12 tarbidity temperature pH Floride Color Hardness Ma Fe Allalimity Microbial Chemical Dosing and Operating St Coegulants Polymer Soda Ash	m3 m3 on, hr. per month merry current low high type adjustment current low high type adjustment low high type adjustment low high type adjustment	Rarw 7 7 1 1 1 1	455 4.3 Treated 7 7 7 0 7 7 0 7 7 1 1 1 1 1 1 1 1 1 1 1	LTWR
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment Weekly Samobing Routine free C12 total C12 total C12 total C12 total C12 total C12 Color Hardness Ma Fe Alkalinity Microbial Chemical Dosing and Operating St Cogulants	m3 m3 on, hr. per month mery current low high type adjustment current low high type adjustment current low high adjustment current low	Rarw 7 7 1 1 1 1	455 4.3 Treated 7 7 7 7 0 7 7 1 1 1 1 1 1 1 1 1 1 1 1 1	LTWR
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 tarbidity temperature pft Floride Color Hardness Ma Fe Albalinity Microbial Chemical Dosing and Operating St Congulants	m3 m3 on, hr. per mosth meav current low high type adjustment current low high type adjustment current low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low	Rarw 7 7 1 1 1 1	455 4.3 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	LTWR
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 tarbidity temperature pft Floride Color Hardness Ma Fe Albalinity Microbial Chemical Dosing and Operating St Congulants	m3 m3 m3 on, hr. per month Telory current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high high type adjustment current low high high high high type adjustment current low high high high high type adjustment current low high high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high high type low high high type low high high high high high high high hig	Rarw 7 7 1 1 1 1	455 4.3 Treated 7 7 7 0 0 7 7 1 1 1 1 1 1 1 1 1 1 1 1 1	LTWR
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment Weekly Samubing Routine free C12 total C12 tarbidity temperature pH Floride Color Hardness Ma Fe Allaslimity Microbial Chemical Dosing and Operating St Coegulants Polymer Soda Ash	m3 m3 on, hr. per month micey current low high type adjustment current low high type adjustment current low high type adjustment current low high type type	Rarw 7 7 1 1 1 1	455 4.3 <i>/CgA/Aet/Cbr/Cl2/Rfl</i> Treated 7 7 7 7 1 1 1 1 1 1 1 1 1 1 1 1 1	UTWR
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 tauthtity temperature pH Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Dosing and Operating St Cogulants Polymer Soda Ash Disinfection	m3 m3 m3 on, hr. per mosth meavy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high	Rarw 7 7 1 1 1 1	455 4.3 Treated 7 7 7 0 0 7 7 1 1 1 1 1 1 1 1 1 1 1 1 1	LTWR
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 tarbidity temperature pft Floride Color Hardness Ma Fe Albalinity Microbial Chemical Dosing and Operating St Congulants	m3 m3 on, hr. per month micey current low high type adjustment current low high type adjustment current low high type adjustment current low high type type	Rarw 7 7 1 1 1 1	455 4.3 <i>/CgA/Aet/Cbr/Cl2/Rfl</i> Treated 7 7 7 7 1 1 1 1 1 1 1 1 1 1 1 1 1	LTWR
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment Weekly Samphing Routine free C12 total C12 travitidity temperature pH Floride Color Hardness Ma Fe Albalinity Microbial Chemical Dosing and Operating St Congulants Polymer Soda Ash Disinfection.	m3 m3 m3 on, hr. per month mlexy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low	Rarw 7 7 1 1 1 1	455 4.3 <i>/CgA/Aet/Cbr/Cl2/Rfl</i> Treated 7 7 7 7 1 1 1 1 1 1 1 1 1 1 1 1 1	LTWR
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment Weekly Samphing Routine free C12 total C12 travitidity temperature pH Floride Color Hardness Ma Fe Albalinity Microbial Chemical Dosing and Operating St Congulants Polymer Soda Ash Disinfection.	m3 m3 m3 on, hr. per month micry current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment type adjustment current low high type adjustment type adjustment type adjustment type adjustment type adjustment type adjustment type adjustment type adjustment type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type	Rarw 7 7 1 1 1 1	455 4.3 <i>/CgA/Aet/Cbr/Cl2/Rfl</i> Treated 7 7 7 7 1 1 1 1 1 1 1 1 1 1 1 1 1	LTWR
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment Weekly Samphing Routine free C12 total C12 travitidity temperature pH Floride Color Hardness Ma Fe Albalinity Microbial Chemical Dosing and Operating St Congulants Polymer Soda Ash Disinfection.	m3 m3 m3 on, hr. per month mlexy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low	Rarw 7 7 1 1 1 1	455 4.3 <i>/CgA/Aet/Cbr/Cl2/Rfl</i> Treated 7 7 7 7 1 1 1 1 1 1 1 1 1 1 1 1 1	LTWR
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment Weekly Samphing Routine free C12 total C12 travitidity temperature pH Floride Color Hardness Ma Fe Albalinity Microbial Chemical Dosing and Operating St Congulants Polymer Soda Ash Disinfection.	m3 m3 m3 con, hr. per month mery current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type distment current low high type distment current low high type distment current low high type distment current low high type distment current low high type distment current low high type distment current low high type distment current low high type distment current low high type distment current low high type distment current low high type distment current low high type distment current low high type distment current low high type distment current low high type distment current low	Rarw 7 7 1 1 1 1	455 4.3 <i>/CgA/Aet/Cbr/Cl2/Rfl</i> Treated 7 7 7 7 1 1 1 1 1 1 1 1 1 1 1 1 1	LTWR
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Samoling Routine free C12 total C12 total C12 total C12 total C12 total C12 total C12 Color Hardness Ma Fe Alkalinity Microbial Chemical Dosing and Operating St Congulants Polymer Soda Ash Disinfection	m3 m3 on, hr. per mosth meany current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high high low high high high high high high high hig	Rarw 7 7 1 1 1 1	455 4.3 /CgA/Aet/Clar/Cl2/Rfl Treated 7 7 7 7 1 1 1 1 1 1 1 1 1 1 1 1 1	LTWR
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Samoling Routine free C12 total C12 total C12 total C12 total C12 total C12 total C12 Color Hardness Ma Fe Alkalinity Microbial Chemical Dosing and Operating St Congulants Polymer Soda Ash Disinfection	m3 m3 m3 on, ht. per month meany current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type current low high type current low high type current low high type current low high type current low high type current current low high type current low high type current low high type current low high type current low high type current current low high type current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current curent current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current curent current curent current current current current curent current	Rarw 7 7 1 1 1 1	455 4.3 //CgA/Ast/Cbr/Cl2/Rfl 7 7 7 7 7 7 7 7 7 7 7 7 7	LTWR
Storage Average Daily Production. Ave. Theoretical Hydraulic Detenti Treatment Weekly Samphing Routine free C12 total C12 travitidity temperature pH Floride Color Hardness Ma Fe Albalinity Microbial Chemical Dosing and Operating St Congulants Polymer Soda Ash Disinfection.	m3 m3 on, hr. per month mery current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	Rarw 7 7 1 1 1 1	455 4.3 Treated 7 7 7 0 7 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1	LTWR
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Samoling Routine free C12 total C12 total C12 total C12 total C12 total C12 total C12 Color Hardness Ma Fe Alkalinity Microbial Chemical Dosing and Operating St Congulants Polymer Soda Ash Disinfection	m3 m3 m3 on, ht. per month meany current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type current low high type current low high type current low high type current low high type current low high type current current low high type current low high type current low high type current low high type current low high type current current low high type current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current curent current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current curent current curent current current current current curent current	Rarw 7 7 1 1 1 1	455 4.3 //CgA/Ast/Cbr/Cl2/Rfl 7 7 7 7 7 7 7 7 7 7 7 7 7	LTWR

•

Type of Sample         Rev         Treated         Distributed           Pif Conductivy         Men ohm/c         20         6.8         6.8           pif         8.2         6.8         6.8         6.8           Conductivy         Men ohm/c         20         0.2         0.14           Turbiday         NTU         70         0.2         0.14           Turbiday         map of the second				PEACE RIVER	
Tangeneration         deg C         19.4         19.4         -           Conductry         Min o sharke'         270         300         300           Toda C.Joinnin         rag L         NA         1.01         0.12           Toda C.Joinnin         rag L         NA         1.01         0.42           Ammonia         rag L         NA         0.30         0.1         0.5         0.5           Code Type         skipk         domain         0.5         0.5         0.5           Code Type         skipk         domain         0.5         0.5         0.5           Flower Poolin         out of 31         NA         9         0.5         0.5           Flower Poolin         cut of 10         NA         9         0.5         0.5           Flower Poolin         cut of 10         NA         9         0.5         0.5           Flower Pooline Recompt Par Count (48 hp)         ch/100ml         2.2         4.1         4.1         0.1         0.1         0.1         0.1         0.1         0.1         0.1         0.1         0.1         0.1         0.1         0.1         0.1         0.1         0.1         0.1         0.1         0.1	Type of Sample		R may	21-Jul-94	Distributed
pi de contactivity     Na o duravé ZP     52.     6.8     6.8       Conductivity     NTU bill     70     0.2     0.14       Turbisky     NTU     70     0.2     0.14       Free Characte     mg/L     NA     0.33     0.32       Free Characte     mg/L     NA     0.31     0.4       Order Linaardy     out of 10     NA     8     8       Order Linaardy     out of 10     NA     8     8       Flavour Fordine     out of 10     NA     8     8       Flavour Fordine     out of 10     NA     9     9       Flavour Comment     childhowid     cmll     -1     -1       Free Charactel Count (14 by)     phil bill     10     -1     -1       Free Charactel Count (14 by)     phil bill     20     -1     -1       Free Charactel Count (14 bill)     phill     21     -1     -1       Free Charactel Count (14 bill     phill     21     -1     -1       Free Charactel Count (14 bill     phill     21     -1     -1       Free Charactel Count (14 bill     phill     21     -1     -1       Free Charactel Count (14 bill     phill     21     -1     -1       Free Chara		deg C			L'ABUTU ALLO
ConductivityMano chanker270300500Totak Chokrainem.g.LNA1.010.42Free Choteniem.g.LNA0.910ColorTCU13000ColorTCU13000ColorTCU13000ColorTCU13000ColorTCU13000Parwer Profileout of 10NA82Planver Profileout of 10NA82Flanver Profileout of 10NA82Flanver Profileout of 10NA82Flanver Profilecourt of 400014141Flanver Profilecourt of 40003094141Flanver Profilecourt of 40003014141Flanver Profilecourt of 400033401Flanver Profilecourt of 400033401Flanver Profilecourt of 400033401Flanver Profilecourt of 400033211033Suffer Altering Baterinaorgl nL2443.32Yeascourt of 40002443.32Yeascourt of 400033211040Profileorgl nL2443.32Yeascourt of 70003511043.3Yeascourt of 7000777Yeascourt of 7		ungu			
TurbakoyNTU700.20.4Tack CalveirengLNA0.390.32Free ChlothengLNA0.950.32ColorTgCNA0.950.32AtmoniangLAtmoniangLDebugout of 30.10.50.5Debugout of 30.10.50.5Provent Foliaout of 30.10.50.5Provent Foliaout of 30.10.50.5Provent FoliachlothonchlothonchlothonchlothonFread Collformachlothonchlothon2Fread Collformachlothon2Fread Staffarechlothon2Fread Staffarechlothon2Fread Staffarechlothon2Fread Staffarechlothon2Fread Staffarechlothon2Fread Staffarechlothon2Fread StaffarechlothonFread StaffarechlothonFread StaffarechlothonFread StaffarechlothonFread StaffarechlothonFread Staffare<		Mire obme/c			
Teak Chiokene mg/L NA 0.01 0.42 Free Chartene mg/L NA 0.95 0.32 Color Transmonia mg/L 1. Ammonia mg/L 1. Proce Chartene mg/L 1. Solder Linearity 0.01 0.5 Flavour Frolie 0.05 Flavour Frolie 0.05 Flavour Frolie 1. Flavour Comment 1. Trada Colforms ch/100ml 2. Flavour Comment 1. Trada Colforms ch/100ml 3. Flavour Comment 1. Trada Colforms ch/100ml 5. Flavour Comment 1. Trada Colforms 1. Flavour Comment 1. Fla					
Free Choires       mgL       NA       0.93       0.32         Ammonia       mgL       -       -       -         Odour Type       -       -       -       -         Odour Tamanity       out of 3       0.1       0.5       0.5         Pervour Frodie       out of 3       0.1       0.5       0.5         Prevour Frodie       out of 5       0.1       0.5       0.5         Prevour Frodie       out of 5       0.1       0.5       0.5         Prevour Frodie       out of 5       0.1       0.5       0.5         Prevour Frodie       cmfL       -       44       65         Trada Coliforms       cm/10ml       2       -       -       -         Rescreption Place Count (4 hr)       ch/10ml       23       -       -       -         Rescreption Place Count (4 hr)       ch/10ml       55       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       - <td< td=""><td></td><td>-</td><td></td><td></td><td></td></td<>		-			
Color TCU 130 0 0 0 Amountia mgL +					
Ammonia     mgf.     sight     -     -     -       Odour Type     out of 10     0.1     0.5     0.5       Flewour Pooline     out of 10     NA     8       Flewour Comment     cmf.      44     65       Total Coliforms     chu/10m1     2.1         Total Coliforms     chu/10m1     2.3           Total Coliforms     chu/10m1     2.4           Total Schemang Bactria     cry/1 mL     >110           Theosefined Bactria     cry/1 mL     >110           Table Patheting Bactria     cry/1 mL     >10          Table Patheting Bactria     cry/1 mL     >10          Theosefined Reducing Bactria     cry/1 mL     >10          Table D					
Odour Type         albph         Aborine         Aborine         Aborine         Aborine         Aborine           Flavour Lorannent         out of 10         NA         8         8           Trada Coliforma         chu/100ml         confl         <1	Ammonia			-	-
Odour Endoards         0.1         0.5         0.5           Flavour Comment         voi of 10         NA         8           Table         ug/L         -         44         65           Table Columnest         cmm1         -         44         65           Total Coliforms         chu/10m1         2         -1         -1           Total Coliforms         chu/10m1         23         -1         -1           Total Coliforms         chu/10m1         23         -1         -1           Total Coliforms         chu/10m1         23         -1         -1           Viscour Common Component (7 May)         24         -1         -1           Fore Streptoxeccus         chu/10m1         24         -2.3         0.4           Tone Rohdmig Bacteria         org/1 mL         210         -0.3         210           Sufflee Roheng Bacteria         org/1 mL         210         -0.3         24           Theorem Found Streptococcus         rg/1 mL         210         -         -           Sufflee Roheng Bacteria         org/1 mL         210         -         -           Toto Orderizing Bacteria         org/1 mL         210         -         - </td <td></td> <td></td> <td>slight</td> <td>chlorine</td> <td>chlorine</td>			slight	chlorine	chlorine
Planor profile provide for the second of the		out of 3			
TPMds     ug/L     -     44     65       Toal Coliforms     ch/100ml     2     -1     -1       Feed Coliforms     ch/100ml     2     -1     -1       Hearcoropic Plac Cont (41 hr)     477     2     3     -1       Hearcoropic Plac Cont (41 hr)     477     2     3     -1       Feed Strapcoccus     ch/10ml     56     -1     -1       Mode     ch/10ml     33     40     1     -1       Tos Reducing Bactrin     org/1 nL     210     -0.3     2     -10       Suffer Reducing Bactrin     org/1 nL     210     -0.3     24     -2       Plant Coensions     org/1 nL     210     -0.3     24     -2       Plant Coensions     org/1 nL     210     -2     -2     -2       Plant Coensions     org/1 nL     210     -3     24     -2       Plant Coensions     org/1 nL     210     -2     -2     -2       Plant Coensions     mark     -2     -2     -2       Plant Coensions     mark     -2     -2     -2       Plant Coensions     mark     -2     -2     -2       Take Strap Extend     org/1 nL     -10     -2     -2   <	Flavour Profile		NA	8	8
Table Coliforms         cfv/100ml         cfi         cfi         cfi         cfi           Feed Coliforms         cfv/100ml         2         cfi         cfi           Hearcotropic Plate Court (7 day)         cfi/100ml         56         cfi         cfi           Freed Streptococcus         cfv/100ml         56         cfi         cfi           Freed Streptococcus         cfv/100ml         57         cfi         cfi           Tom Reducing Bacteria         crg/1 mL         210         c0.3         210           Stliffe Reducing Bacteria         crg/1 mL         211         c0.3         210           Thom Reducing Bacteria         crg/1 mL         211         c0.3         210           Thom Reducing Bacteria         crg/1 mL         211         c0.3         210           Plant Coemisions         crg/1 mL         210         c0.3         210           Plant Coemisions         crg/1 mL         210         c0.3         210           Promo hours to operate plant per swek         35         crg/1 mL         7           T & O problems         m3         403         crg/1 mL         7           Streptococcus         m3         403         crg/1 mL         7 <td>Flavour Comment</td> <td></td> <td>1</td> <td></td> <td></td>	Flavour Comment		1		
Table Coliforms         cfv/100ml         cfi         cfi         cfi         cfi           Feed Coliforms         cfv/100ml         2         cfi         cfi           Hearcotropic Plate Court (7 day)         cfi/100ml         56         cfi         cfi           Freed Streptococcus         cfv/100ml         56         cfi         cfi           Freed Streptococcus         cfv/100ml         57         cfi         cfi           Tom Reducing Bacteria         crg/1 mL         210         c0.3         210           Stliffe Reducing Bacteria         crg/1 mL         211         c0.3         210           Thom Reducing Bacteria         crg/1 mL         211         c0.3         210           Thom Reducing Bacteria         crg/1 mL         211         c0.3         210           Plant Coemisions         crg/1 mL         210         c0.3         210           Plant Coemisions         crg/1 mL         210         c0.3         210           Promo hours to operate plant per swek         35         crg/1 mL         7           T & O problems         m3         403         crg/1 mL         7           Streptococcus         m3         403         crg/1 mL         7 <td></td> <td></td> <td></td> <td>{</td> <td></td>				{	
Feat Columns         ch/100ml         2.         <1	THIMs	ug/L	-	44	65
Feat Columns         ch/100ml         2.         <1				Ì	1
Hearcoropic Plaze Count (48 hp)       r/l/1 all.       339       <1			confl		
Hearonorpic Plate Count (7 days) e fV/ Ind. Freal Streptococcus ch/100ml 95 - 41 - 41 Freal Count of Count of Ch/1 mL 27 - 41 - 41 Yeas ch/1 mL 21 - 40.3 - 210 0.3 - 210 Suffer Reducing Baterin 07/1 mL 21 - 40.3 - 210 Toombhae Reducing Baterin 07/1 mL 21 - 40.3 - 210 Toomothee Reducing Baterin 07/1 mL - 110 - 40.3 - 210 Toomothee Reducing Baterin 07/1 mL - 110 - 40.3 - 210 Toomothee Reducing Baterin 07/1 mL - 110 - 40.3 - 210 Toomothee Reducing Baterin 07/1 mL - 110 - 40.3 - 210 Toomothee Reducing Baterin 07/1 mL - 110 - 40.3 - 210 Toomothee Reducing Baterin 07/1 mL - 110 - 40.3 - 210 Toomothee Reducing Baterin 07/1 mL - 110 - 40.3 - 210 Toomothee Reducing Baterin 07/1 mL - 110 - 40.3 - 210 Toomothee Reducing Baterin 07/1 mL - 110 - 40.3 - 210 Toomothee Reducing Baterin 07/1 mL - 110 - 40.3 - 210 Toomothee Reducing Baterin 07/1 mL - 110 - 40.3 - 210 Frence Locure plant per week	Fecal Coliforms				
Kinbattain         ch/10m1         cmfl         <1					
Field Stripcococus         ch/10 ml.         27         <1					
Molds         cfu7 mul, yest         27         <1				-	
Yeas: chur Au, 33 40 1 1 con Rohning Bactria rry 1 mL 24 -0.3 2 Suffie Rohning Bactria rry 1 mL 24 -0.3 2 Thombar Rohning Bactria rry 1 mL 24 -0.3 2 Pair Coentions Part and rry 1 mL 24 -0.3 2 Pair Coentions Part and rry 1 mL 24 -0.3 2 Pair Coentions Part and rry 1 mL 24 -0.3 2 Pair Coentions Part and rry 1 mL 24 -0.3 2 Pair Coentions Part and rry 1 mL 24 -0.3 2 Pair Coentions Part and rry 1 mL 24 -0.3 2 Pair Coentions Part and rry 1 mL 24 -0.3 2 Pair Coentions Part and rry 1 mL 24 -0.3 2 Pair Coentions Part and rry 1 mL 24 -0.3 2 Pair Coentions Part and rry 1 mL 24 -0.3 2 Pair Coentions Part and rry 1 mL 24 -0.3 2 Pair Coentions Part and rry 1 mL 24 -0.3 2 Pair Coentions Part and rry 1 mL 24 -0.3 2 Pair Coentions Part and rry 1 mL 24 -0.3 2 Pair Coentions Part and rry 1 mL 24 -0.3 2 Pair Coentions Part and rry 1 mL 24 -0.3 2 Pair Coentions Part and rry 1 mL 24 -0.3 2 Pair Coentions Part and rry 1 mL 24 -0.3 2 Pair Coential Hydrasilic Detention, hr. 7 Pair Treatment Coential Hydrasilic Detention, hr. 7 Pair Treatment Coential Hydrasilic Detention, hr. 7 Pair Pair A Pair					
trom Reducing Bacteria org/1 mL 210 <0.3 > 110 COUNTY Reducing Bacteria org/1 mL 24 COUNTY REDUCING Pacteria org/1 mL 21 COUNTY REDUCING Pacteria org/1 mL 21 Part Operator June org/1 mL 2	Molds				
Staffer Recting Bacteria         org/1 mL         24         <0.3	Yeast	cfu/1 mL			
Safile Robucing Bacteria org/1 mL org/1	Iron Reducing Bacteria				
Taloanding Bacteria org/1 mL o	Sulfate Reducing Bacteria				
tron Oxidizing Bactella org/1 mL 110 - 0.3 24 Plant Coerresco local to operate plant per week T & O problems	Sulfite Reducing Bacteria	org/1 mL			
Plant Operations Person hours to operate plant per week Person hours to operate plant per week T & O problems Hardness high low Recycel Filter Backwash Distribution system flushing program Storage m m3 Average Daily Production Production Production Average Daily Productio	Thioralfate Reducing Bacteria				
Person hours to operate plant per weak     35       T & O problems     yes       Hardmes:     high low       Recycel Filter Backwash     no       Distribution system finshing program     yes       Storage     m3       Average Daily Production     m3       Vere Theoretical Hydraulic Detertion, br.     27       Treatment     Cg/ACCCbrRfult/FlutpH/Cl2/TWR       Weekby Sampting Routine free Cl2     7       Itambacky     7     7       Pile     7     7       Fee     -     -       Alkalimity     -     -       Microbial     per month     8       Color     -     -       Microbial     per month     8       Chemical Dosing and Operating Strategy     20       high     400       tow     0.1       high     0.6       tow     0.2       bo	Iron Oxidizing Bacteria	org/1 mL	110	<0.3	24
Person hours to operate plant per weak     35       T & O problems     yes       Hardmes:     high low       Recycel Filter Backwash     no       Distribution system finshing program     yes       Storage     m3       Average Daily Production     m3       Vere Theoretical Hydraulic Detertion, br.     27       Treatment     Cg/ACCCbrRfult/FlutpH/Cl2/TWR       Weekby Sampting Routine free Cl2     7       Itambacky     7     7       Pile     7     7       Fee     -     -       Alkalimity     -     -       Microbial     per month     8       Color     -     -       Microbial     per month     8       Chemical Dosing and Operating Strategy     20       high     400       tow     0.1       high     0.6       tow     0.2       bo					
T & O problems yes a initia initia initia in	Plant Operations			I	I
landmeas high low landmeas high Recycel Filter Backwash		week		35	
Hardness high low - Recycel Filter Backwash - Distribution system flushing program - Storage m3 - 455 Average Daily Production m3 - 4059 Aver. Theoretical Hydrautic Detention, hr Treatment Weekby Sampling Routine free C12 Treatment Weekby Sampling Routine free C12 Plot Plot Plot Plot Plot Plot Plot Plot Plot Plot Plot Plot Plot Ma Fe Alkalinity Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes Marchaes	T & O problems				
Jow     -       Recycel Filter Backwash     no       Distribution system Ilushing program.     yet       Storage     n3       Average Daily Production     m3       Average Daily Production     7       Treatment     C2e/ACCtbr@UPTNipHC12/TWR       Weekly Sampting Routine     7       Tatabaday     7       Tatabaday     7       Tatabaday     7       Pil     7       Foride     7       Alkalinity     -       Ma     -       Fe     -       Alkalinity     -       Alkalinity     -       Alkalinity     -       Alkalinity     - <td></td> <td></td> <td></td> <td>a little</td> <td></td>				a little	
Recycel Filter Backwash Distribution system flushing program. Distribution system flushing program. Storage n3 Average Daily Production Treatment C_20/ACCMR/BUFIn/pH/C12/TWR Weakly Sampling Routine free C12	Hardness			•	
Distribution system flushing program. Storage n.3 Average Dily Production m3 Average Dily Dily Dily Dily Dily Dily Dily Dily		low		•	
Distribution system flushing program. Storage n.3 Average Dily Production m3 Average Dily Dily Dily Dily Dily Dily Dily Dily	n			-	
just started       Average Daily Production     m3       Average Daily Production     m3       Ave. Theoretical Hydraulic Detention, hr.     2.7       Treatment     CgA/AC/Clar/R10/F1u/pH/Cl2/TWR       Weekby Sampling Routine free Cl2     7       Treatment     CgA/AC/Clar/R10/F1u/pH/Cl2/TWR       Weekby Sampling Routine free Cl2     7       temperature     7       pH     7       Fooda     -       Color     7       Hardness     -       Mn     -       Fe     -       Alkalmixity     -       Microbial     per month       Bigh     400       type     alum       adjustment     based on turb of raw       Polymer     current       low     0       high     05       adjustment     based on clarifier setting characteristics       Soda Aah     current       low     0       high     65       adjustment     based on chlorine residual       low     0       high     19       type     current       low     0       high     43       total current     12       low     0 <td>Kecycel Filler Backwash</td> <td></td> <td></td> <td>лс</td> <td></td>	Kecycel Filler Backwash			лс	
just started       Average Daily Production     m3       Average Daily Production     m3       Ave. Theoretical Hydraulic Detention, hr.     2.7       Treatment     CgA/AC/Clar/R10/F1u/pH/Cl2/TWR       Weekby Sampling Routine free Cl2     7       Treatment     CgA/AC/Clar/R10/F1u/pH/Cl2/TWR       Weekby Sampling Routine free Cl2     7       temperature     7       pH     7       Fooda     -       Color     7       Hardness     -       Mn     -       Fe     -       Alkalmixity     -       Microbial     per month       Bigh     400       type     alum       adjustment     based on turb of raw       Polymer     current       low     0       high     05       adjustment     based on clarifier setting characteristics       Soda Aah     current       low     0       high     65       adjustment     based on chlorine residual       low     0       high     19       type     current       low     0       high     43       total current     12       low     0 <td>Distribution system fluching</td> <td><b>2</b>777</td> <td></td> <td>Vet</td> <td></td>	Distribution system fluching	<b>2</b> 777		Vet	
Storage n3 Average Daily Production m3 Aver. Theoretical Hydraulic Detention, hr. Treatment Weekly Sampline Routine free C12 totak C12 tot	menomou system merung progra	411			
Average Daily Production m3 Ave. Theoretical Hydraulic Determion, hr. Treatment C2A/AC/Clr/R10/Flu/pH/C12/TWR Weckly Sampling Routine free C12 7 temperature pH Forde 7 Floride 7 Color 7 Hardness Ma Fe Alkalimity 9 Microbial per month 8 Chemical Dosing and Operating Strategy Coagulants 0 Chemical Dosing and Operating Strategy Coagulants 0 Chemical Dosing and Operating Strategy Coagulants 0 System 0 bigh 400 type abum adjustment 0.2 Soda Ash 0 Disinfection 0 Disinfe	Stame	<del>m</del> 2			
Ave Theoretical Hydraulic Detention, hr.  Treatment  C2.7  Treatment  C2.AC/Clr/Rfl/Flu/pi4/C12/TWR  Weekby Sampling Routine  free C12 code C12 code C12 code C12 code C12 code C12 code C1 co					
Treatment CgA/AC/Clr/R1k/Flu/pH/Cl2/TWR Weekh Sampling Routine free Cl2 total Cl2 Tota					
Weekly Sampling Routine free C12 tords C12 turbibily     Raw     Treated       7     7       turbibily     7       Floride     7       Color     7       Hardness     -       Kaimity     7       Fe     -       Alkalmity     -       Microbial     per month       Social Dosing and Operating Strategy     -       Coagulants     current       jugh     400       high     400       bow     0.1       high     0.6       Vype     alum       adjustment     based on tarb of raw       Soda Ash     current       Ibw     0.6       Soda Ash     current       Isigh     65       adjustment     based on clarifier setting characteristics       Soda Ash     current       Ibigh     65       adjustment     based on clarifier setting characteristics       Soda Ash     current       Ibigh     1.9       igh     1.75       igh     1.7	Ave. Theoretical Hydraulic Detenti	on, nr.	1	4.1	
Weekly Sampling Routine free C12 tords C12 turbibily     Raw     Treated       7     7       turbibily     7       Floride     7       Color     7       Hardness     -       Kaimity     7       Fe     -       Alkalmity     -       Microbial     per month       Social Dosing and Operating Strategy     -       Coagulants     current       jugh     400       high     400       bow     0.1       high     0.6       Vype     alum       adjustment     based on tarb of raw       Soda Ash     current       Ibw     0.6       Soda Ash     current       Isigh     65       adjustment     based on clarifier setting characteristics       Soda Ash     current       Ibigh     65       adjustment     based on clarifier setting characteristics       Soda Ash     current       Ibigh     1.9       igh     1.75       igh     1.7			1		1
free C12 total C12 total C12 total C12 temperature Floride Color Florid			Cedia	C/Cle/Rflt/Fln/nH/C	2/TWR
totel C12 7 7 7 7 turbishy 7 7 7 Floride 7 7 Floride 7 7 Hardness 7 7 7 Hardness 7 7 Alkainnity 7 7 Alkainnity 7 Nicrobial per month 8 Chemical Dosing and Operating Strategy 7 Cosgulants 1000 20 high 400 type 8hum 20 high 400 type 8hum 20 high 400 type 8hum 1 seed on turb of raw 0.1 high 0.6 type 9 soda Ash current 0.2 Soda Ash current 1 bow 0.1 high 65 soda Ash current 1 bow 0.1 high 65 soda Ash current 1 bow 0.1 high 65 soda Ash 0 type 7 Soda Ash 0 Soda Ash 0 type 7 Soda Ash 0 Soda	Treatment				2/TWR
rartisidary 7 7 7 temperature 7 Pi foride 7 Floride 7 Floride 7 Floride 7 Floride 7 Floride 7 Fe Alkakimity 7 Microbial per month 8 Chemical Dosing and Operating Strategy 7 Coagulants 95 Coagulants 95 Coagulants 95 Coagulants 95 Coagulants 95 Coagulants 95 Coagulants 95 Coagulants 95 Coagulants 95 Coagulants 00 Nigh 400 Nype 8 Polymer 0.1 Nigh 0.6 Yype 9 Presetol 25-15 adjustment 95 Soda Aah 0.6 Yype 9 Presetol 25-15 Soda Aah 0.7 Nigh 1.9 Nigh 4 Now 0 Nigh 4 Now 0 Nigh 4 Now 0 Nigh 4 Now 0 Nigh 4 Now 0 Nigh 0.8 Nigh	Treatment Weekly Sampling Routine			Treated	2TWR
temperature 7 pt 7 pt 7 forde 7 forde 7 forde 7 Color 7 Color 7 forde - Color	Treatment Weekly Sampling Routine free Cl2			Treated 7	2/TWR
pH / 7 7 7 Floride /	Treatment Weekly Sampling Routine free C12 total C12		Raw	Treated 7 7	2/TWR
Floride Color - 7 Color - 7 Color - 7 Hardness Man Alkalimity Microbial per month Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits Congularits  Congularits Congularits Congularits Congularits Congularits Congularits         	Treatment Weekly Sampling Routine free C12 total C12 turbidaty		Raw	Treated 7 7 7	2/TWR
Color     7     7       Hardness     -       Ma     -       Fe     -       Alkalmity     -       Fe     -       Alkalmity     -       Microbial     per month       Congularity     8       Chemical Dosing and Operating Strategy     95       Congularity     -       Ingh     400       type     aljustment       based on tarb of raw     0.2       Jow     0.1       Juigh     0.6       type     preastol 25-15       Soda Ash     current       Jow     0.6       type     14       Jow     0.7       high     65       adjustment     based on pH       Disinfection     current       Jow     0.7       high     1.9       Ype     C12 gas       dynament     based on chlorine residual       Jow     0       Inigh     4       Jow     0       high     4       Ype     Algustment       Jow     0       high     4       Ype     Algustment       Jow     0       high     4	Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidaty turbidaty temperature		Raw 7	Treated 7 7 7	2/TWR
Hardness Mn. Fe Hardness Fe Alkaimity Microbial per month Alkaimity Microbial per month Alkaimity Microbial per month Alkaimity Coagulants current Jow Polymer Polymer Coagulants Coagulants Jow Polymer Coagulants Coagulants Jow Polymer Coagulants Soda Aah Current Jow Jow Coagulants Soda Aah Current Jow Disinfection Jow Disinfection Jow Jow Jow Jow Jow Jow Jow Jow	Treatment Weekly Sampling Routine free C12 total C12 turbidaty temperature pH		Raw 7	Treated 7 7 7	12/TWR
Mn Fe Alkalmity: Microbial per month - - Alkalmity: Microbial per month 8 Computed Doing and Operating Strategy Coagulants current 95 Coagulants current 95 Coagulants 000 20 high 400 type alum adjustment based on turb of raw 0.2 0.4 100 0.6 type pressiol 25-15 based on clarifier setting characteristics Soda Ash 0.6 type pressiol 25-15 based on clarifier setting characteristics Soda Ash 0.6 type 0.7 tigh 1.9 type 0.7 tigh 1.9 type 0.7 tigh 1.9 type 0.7 tigh 1.9 type 0.7 tigh 1.9 type 0.7 tigh 1.9 type 0.7 tigh 4 type 0.6 type 0.6 type 0.7 tigh 4 type 0.6 type 0.6 type 0.6 type 0.7 tigh 4 type 0.6 type 0.6 type 0.6 type 0.7 tigh 4 type 0.6 type 0.6 type 0.6 type 0.7 tigh 0.6 type 0.7 tigh 0.6 type 0.7 tigh 0.7 tigh 0.7 tigh 0.6 type 0.6	Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidity temperature pH Floride		Raw 7	Treated 7 7 7	2/TWR
Fe     -       Alkalmity     -       Microbial     per month       Congularits     95       Constrained Operating Strategy     20       high     400       high     400       Sype     alum       adjustment     based on turb of raw       Polymer     current       Jow     0.1       high     0.6       Type     preastol 25-15       adjustment     based on turb of raw       Ook     0.1       high     0.6       Type     preastol 25-15       adjustment     based on clarifier settling characteristics       Soda Ash     current       Idigh     65       adjustment     based on pH       Disinfection     current       Iow     0.7       high     1.9       Ype     Cl2 gas       adjustment     based on chlorine residual       Iow     0       Iow     0       high     4       Ype     PAC       adjustment     based on odour       Iow     0.8       ingh     0.8       olow     0.8       ingh     0.8       ingh     0.8	Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidaty temperature pH Florida Color		Raw 7	Treated 7 7 7	2TWR
Alkaimity     -       Microbial     per month     8       Chemical Dosing and Operating Strategy     95       Coagalants     iow     20       high     400       Kippe     ahum       adjustment     based on turb of raw       Polymer     current     0.2       ibigh     0.6     0.1       high     0.6     0.2       high     0.6     0.2       high     1.9     0.7       high     1.9     0.7       high     1.9     0.2       ype     C12 gas       adjustment     based on ch	Treatment <u>Weekly Sampling Routine</u> free C12 total C12 turbidaty temperature pH Floride Color Hardness		Raw 7	Treated 7 7 7	27WR
Microbial per month 8 Chemical Dosing and Operating Strategy Coagniants current 95 low 20 high 400 type alum adjustment based on turb of raw 0.2 low 0.1 high 0.6 type presstol 25-15 soda Ash 0.6 type presstol 25-15 soda Ash 0.6 type presstol 25-15 based on clarifier setting characteristics Soda Ash 0.6 type presstol 25-15 based on clarifier setting characteristics Soda Ash 0.7 high 65 adjustment 14 low 0.7 high 1.9 type C12 gas adjustment based on chlorine residual T & O control current 1.75 low 0 high 4 type PAC sdjustment based on codour Floride current 0.83 low 0.8 high 0.8 sdjustment constant	Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidaty temperature pH Florida Color Hardness Mn		Raw 7	Treated 7 7 7	27WR
Chemical Dosing and Operating Strategy Coagulants current 95 Iow 20 high 400 type alum adjustment based on turb of raw 0.1 high 0.6 type presetol 25-15 adjustment based on classifier setting characteristics Soda Ash 0.6 type presetol 25-15 adjustment 14 Iow 0 high 65 adjustment based on classifier setting characteristics Soda Ash 0.7 high 1.9 type C12 gas adjustment based on chlorine residual 1.75 Iow 0 high 4 type PAC adjustment based on colorine residual Floride current 0.8 Iow 0.8 high 0.8 high 0.8 high 0.8	Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Mn Fe		Raw 7	Treated 7 7 7	27WR
Chemical Dosing and Operating Strategy Coagulants current 95 Iow 20 high 400 type alum adjustment based on turb of raw 0.1 high 0.6 type presetol 25-15 adjustment based on classifier setting characteristics Soda Ash 0.6 type presetol 25-15 adjustment 14 Iow 0 high 65 adjustment based on classifier setting characteristics Soda Ash 0.7 high 1.9 type C12 gas adjustment based on chlorine residual 1.75 Iow 0 high 4 type PAC adjustment based on colorine residual Floride current 0.8 Iow 0.8 high 0.8 high 0.8 high 0.8	Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidaty temperature pH Florida Color Hardness Mn		Raw 7	Treated 7 7 7	27WR
Coagnilants     current     95       low     20       high     400       kype     alum       adjustment     based on tub of raw       Polymer     current     0.2       low     0.1       high     0.6       type     preastol 25-15       adjustment     based on clarifier setting characteristics       Soda Aah     current     14       low     0       high     65       adjustment     based on pH       current     1       low     0.7       high     1.9       type     Cl2 gas       adjustment     based on chlorine residual       low     0.7       high     1.9       type     Cl2 gas       adjustment     based on chlorine residual       low     0       low     0       high     4       type     PAC       adjustment     based on odour       low     0.8       high     0.8       high     0.8       adjustment     based on odour	Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Mn Fe Alkalimity	Der mosth	Raw 7	Treated 7 7 7 7 7 7 7 7 7 - 7 - 7 -	27WR
Jow     20       high     400       Sype     alum       adjustment     based on turb of raw       O/ype     alum       adjustment     0.2       Jow     0.1       high     0.6       Type     pressol 25-15       adjustment     based on clarifier setting characteristics       Soda Ash     current       Jow     0       high     65       adjustment     based on clarifier setting characteristics       Disinfection     current       Jow     0.7       high     1.9       type     Cl2 gas       adjustment     based on chlorine residual       Jow     0       Jow     0       high     4       type     PAC       adjustment     based on adour       Jow     0.8       Jigh     0.8       Jow     0.8	Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Mn Fe Alkalmity Microbial		Raw 7	Treated 7 7 7 7 7 7 7 7 7 - 7 - 7 -	27WR
high         400           Stype         alum           vipe         alum           edjustment         0.2           low         0.1           high         0.6           type         preastol 25-15           adjustment         0.8           Soda Ash         current           low         0           high         65           adjustment         based on pH           Disinfection         0.7           high         1.9           type         Cl2 gas           adjustment         based on chlorine residual           low         0.7           high         1.9           type         Cl2 gas           adjustment         based on chlorine residual           low         0           high         4           low         0           high         4           low         0           high         4           low         0           high         48           low         0.83           low         0.83           highstment         0.8 <td>Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidaty temperature pH Floride Color Hardness Mn Fe Alkalmity Microbial Chemical Dosing and Operating St</td> <td>rategy</td> <td>Raw 7</td> <td>Treated 7 7 7 7 7 7 7 - 7 - - - 8</td> <td>2/TWR</td>	Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidaty temperature pH Floride Color Hardness Mn Fe Alkalmity Microbial Chemical Dosing and Operating St	rategy	Raw 7	Treated 7 7 7 7 7 7 7 - 7 - - - 8	2/TWR
Vpc         alum           adjustment         based on turb of raw           Polymer         0.2           low         0.1           high         0.6           type         preastol 25-15           adjustment         based on clarifier setting characteristics           Soda Ash         current           low         0           high         65           adjustment         based on clarifier setting characteristics           Soda Ash         current           low         0           high         65           adjustment         based on clarifier setting characteristics           Disinfection         current         1           figh         65           adjustment         based on clarifier setting characteristics           low         0.7           high         1.9           type         Cl2 gas           adjustment         based on chlorine residual           low         0           high         4           type         PAC           substment         based on clorur           Floride         current         0.83           low         0	Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Mn Fe Alkalmity Microbial	rategy current	Raw 7	Treated 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	27WR
adjustment     based on turb of raw       Polymer     current     0.2       low     0.1     high     0.6       high     0.6     type       adjustment     based on clarifier setting characteristics       Soda Ash     current     14       low     0       high     65       adjustment     based on pH       Disinfection     current     1       low     0.7       high     1.9       type     Cl2 gas       adjustment     based on chlorine residual       low     0       low     0       high     1.9       type     Cl2 gas       adjustment     based on chlorine residual       low     0       high     4       type     PAC       adjustment     based on odour       floride     current       low     0.8       low     0.8       low     0.8       low     0.8       low     0.8	Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidaty temperature pH Floride Color Hardness Mn Fe Alkalmity Microbial Chemical Dosing and Operating St	rategy current low	Raw 7	Treated 7 7 7 7 7 7 7 7 7 - - - - 8 95 20	2/TWR
Polymer     current     0.2       low     0.1       high     0.6       type     presstol 25-15       adjustment     based on clarifier setting characteristics       Soda Ash     current     14       low     0       high     65       adjustment     based on pH       Disinfection     current     1       ligh     0.7       high     1.9       type     C12 gas       adjustment     based on chlorine residual       low     0       high     1.75       low     0       high     4       type     PAC       adjustment     based on colorar       low     0       high     4       type     PAC       adjustment     based on odour       Floride     current     0.81       low     0.81       high     0.8       high     0.8	Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidaty temperature pH Floride Color Hardness Mn Fe Alkalmity Microbial Chemical Dosing and Operating St	rategy current low high	Raw 7	Treated 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 8 9 5 20 400	2/TWR
low 0.1 high 0.6 type presstol 25-15 adjustment based on clarifier setting characteristics Soda Ash current 14 low 0 high 65 adjustment based on pH current 1 low 0.7 high 1.9 type Cl2 gas adjustment based on chlorine residual 1.7 & O control current 1.75 low 0 high 4 type PAC adjustment based on odour Floride current 0.83 low 0.8 high 0.8 adjustment constant	Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidaty temperature pH Floride Color Hardness Mn Fe Alkalmity Microbial Chemical Dosing and Operating St	rategy current low high type	Raw 7	Treated 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
high     0.6       type     preastol 25-15       adjustment     based on clarifier setting characteristics       Soda Ash     current       low     0       high     65       adjustment     based on pH       Disinfection     0.7       high     1.9       type     Cl2 gas       adjustment     based on chlorine residual       low     0.7       high     1.9       type     Cl2 gas       adjustment     based on chlorine residual       low     0       high     4       type     PAC       based on adour     adjustment       low     0       high     4       type     PAC       preased on adour     0.83       low     0.8       high     0.8	Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidaty temperature pH Floride Color Hardness Mn Fe Akalamity Microbial Chemical Dosing and Operating St Cosgniants	rategy current low high type adjustment	Raw 7	Treated 7 7 7 7 7 7 - - - 8 95 20 400 atum based on turb of raw	
Vpc         presstol 25-15           adjustment         based on clarifier setting characteristics           Soda Aah         current         14           low         0         idjustment           bisinfection         current         1           Disinfection         current         1           low         0.7         itigh         1.9           figh         1.9         1.9           fype         Cl2 gas         adjustment           low         0         1.75           low         0         1.75           figh         1.75         1.9           figh         4         1.25           rgp         PAC         3.3           figh         4         3.3           figh         4         3.3           flow         0.8         3.3           low         0.8         3.3           flow         0.8         3.3           low         0.8         3.3           low         0.8         3.3	Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidaty temperature pH Floride Color Hardness Mn Fe Alkalmity Microbial Chemical Dosing and Operating St	rategy current low high type adjustment current	Raw 7	Treated 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
adjustment     based on clarifier setting characteristics       Soda Ash     current     14       low     0       high     65       adjustment     based on pH       Disinfection     current     1       Disinfection     current     1       jow     0.7     1       kigh     1.9     1       prope     Cl2 gas     2       adjustment     based on chlorine residual       trigh     1.75       Disinfection     0       high     4       type     PAC       adjustment     based on chlorine residual       low     0       high     4       Floride     current       low     0.83       ligh     0.8       high     0.8	Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidaty temperature pH Floride Color Hardness Mn Fe Akalamity Microbial Chemical Dosing and Operating St Cosgniants	rategy current low high type adjustment current low	Raw 7	Treated 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 8 95 20 400 8 20 400 8 20 400 8 20 400 8 20 400 8 20 400 8 20 400 8 20 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Soda Ash     current     14       low     0       high     65       adjustment     besed on pH       Disinfection     current       low     0.7       high     1.9       type     Cl2 gas       adjustment     besed on chlorine residual       low     0       r& O control     current       low     0       high     4       type     PAC       sigustment     based on adour       Floride     current       low     0.8       jow     0.8       adjustment     constant	Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidaty temperature pH Floride Color Hardness Mn Fe Akalamity Microbial Chemical Dosing and Operating St Cosgniants	rategy current low high type adjustment current low high	Raw 7	Treated 7 7 7 7 7 7 7 - - - 8 95 20 400 atum based on turb of raw 0.2 0.1 0.6	
low     0       high     65       adjustment     based on pH       Disinfection     0.7       low     0.7       high     1.9       type     C12 gas       adjustment     based on chlorine residual       T & O control     current       low     0       high     1.75       low     0       high     4       type     PAC       signstment     based on colour       Floride     current     0.83       low     0.8       high     0.8	Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidaty temperature pH Floride Color Hardness Mn Fe Akalamity Microbial Chemical Dosing and Operating St Cosgniants	rategy current low high type adjustment current low high type	Raw 7	Treated 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	7
high     65       adjustment     based on pH       Disinfection     current     1       low     0.7     high     1.9       high     1.9     Cl2 gas       adjustment     based on chlorine residual       T&O control     current     1.75       low     0     high     4       type     PAC     based on odour       Floride     current     0.83       low     0.8     0.8       sajustment     constant	Treatment Weekly Sampling Routine free Cl2 total Cl2 total Cl2 totalot Floride Color Hardness Mn Fe Alkalmity Microbial Chemical Dosing and Operating St Cosgniants Polymer	rategy current low high type adjustment current low high type adjustment	Raw 7	Treated 7 7 7 7 7 7 - - - - - - - - - - - - -	7
adjustment     besed on pH       Disinfection     1       low     0.7       high     1.9       type     Cl2 gas       adjustment     besed on chlorine residual       T&O control     current       low     0       high     4       type     PAC       sdjustment     based on chlorine residual       low     0       high     4       type     PAC       sdjustment     based on colour       Floride     current       low     0.8       high     0.8       high     0.8	Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidaty temperature pH Floride Color Hardness Mn Fe Akalamity Microbial Chemical Dosing and Operating St Cosgniants	rategy current low high djustment current low high type adjustment current	Raw 7	Treated 7 7 7 7 7 7 - - - - - - - - - - - - -	7
Disinfection current 1 Jow 0.7 high 1.9 type Cl2 gas adjustment based on chlorine residual T & O control current 1.75 Jow 0 high 4 type PAC sdjustment based on odour floride current 0.83 Jow 0.8 high 0.8 adjustment constant	Treatment Weekly Sampling Routine free Cl2 total Cl2 total Cl2 totalot Floride Color Hardness Mn Fe Alkalmity Microbial Chemical Dosing and Operating St Cosgniants Polymer	rategy current low high type adjustment current low high type adjustment current low	Raw 7	Treated 7 7 7 7 7 7 - - - - - - - - - - - - -	7
low 0.7 high 1.9 type Cl2 gas adjustment based on chlorine residual 1.75 low 0 high 4 type PAC adjustment based on odour floride current 0.83 low 0.8 high 0.8 adjustment constant	Treatment Weekly Sampling Routine free Cl2 total Cl2 total Cl2 totalot Floride Color Hardness Mn Fe Alkalmity Microbial Chemical Dosing and Operating St Cosgniants Polymer	rategy current low high type adjustment current how high type adjustment current low high	Raw 7	Treated 7 7 7 7 7 7 - - - 8 95 20 400 atum based on turb of raw 0.2 0.1 0.6 preastol 25-15 based on clarifier set 14 0 65	7
high     1.9       type     Cl2 gas       adjustment     based on chlorine residual       1     current       low     0       high     4       type     PAC       adjustment     based on odour       Floride     current       low     0.83       high     0.8       adjustment     constant	Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Mn Fe Alkalmity Microbial Chemical Dosing and Operating St Coagniants Polymer Soda Ash	rstegy current low high type adjustment low high type adjustment current low high adjustment	Raw 7	Treated 7 7 7 7 7 - - - 8 95 20 400 alum based on Lurb of raw 0.2 0.1 0.6 preased 25-15 based on clarifier se 14 0 65 based on pH	7
rype     Cl2 gas       adjustment     based on chlorine residual       T & O control     current       low     0       high     4       type     PAC       sdjustment     0.83       low     0.8       high     0.8       sdjustment     constant	Treatment Weekly Sampling Routine free Cl2 total Cl2 total Cl2 totalot Floride Color Hardness Mn Fe Alkalmity Microbial Chemical Dosing and Operating St Cosgniants Polymer	rstegy current low high type adjustment current low high type adjustment current low high adjustment current	Raw 7	Treated 7 7 7 7 7 7 - - - - - - - - - - - - -	7
adjustment besed on chlorine residual current 1.75 T&O control current 1.75 iow 0 high 4 type PAC adjustment besed on odour Floride current 0.83 iow 0.8 high 0.8 adjustment constant	Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Mn Fe Alkalmity Microbial Chemical Dosing and Operating St Coagniants Polymer Soda Ash	relegy current low high type adjustment current low high adjustment current low high adjustment current low	Raw 7	Treated 7 7 7 7 7 7 - - - 8 95 20 400 alum based on turb of raw 0.2 0.1 0.6 preastol 25-15 based on clarifier set 14 0 65 based on pH 1 0.7 1	7
T & O control current 1.75 low 0 high 4 type PAC adjustment 0.83 low 0.8 high 0.8 adjustment 0.8	Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Mn Fe Alkalmity Microbial Chemical Dosing and Operating St Coagniants Polymer Soda Ash	restery current low high type adjustment current low djustment current low high sdjustment current low high high high	Raw 7	Treated 7 7 7 7 7 7 - - - 8 95 20 400 alum based on Lurb of raw 0.2 0.1 0.6 presstol 25-15 based on clarifier se 14 0 65 based on pH 1 0.7 1.9	7
low 0 high 4 type PAC sdjustment based on odour Floride current 0.83 low 0.8 high 0.8 sdjustment constant	Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Mn Fe Alkalmity Microbial Chemical Dosing and Operating St Coagniants Polymer Soda Ash	restery current low high type adjustment current low high type adjustment current low high adjustment current low high type type type type type	Raw 7	Treated 7 7 7 7 7 7 7 - - - - - - - - - - - - -	Thing characteristics
high 4 type PAC adjustment besed on odour Floride current 0.83 low 0.8 high 0.8 adjustment constant	Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidaty temperature pH Floride Color Hardness Mn Fe Alkainnity Microbial Chemical Dosing and Operating St Coagniants Polymer Soda Ash Dissinfection	relegy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment	Raw 7	Treated 7 7 7 7 7 7 - - - 8 95 20 400 alum based on turb of raw 0.2 0.1 0.6 pressfor 25-15 based on clarifier set 14 0 65 based on pH 1 0.7 1.9 Cl2 gas based on chlorine re	Thing characteristics
type PAC sdjustment based on odour Floride current 0.83 low 0.8 high 0.8 sdjustment constant	Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidity temperature pH Floride Color Hardness Mn Fe Alkalmity Microbial Chemical Dosing and Operating St Coagniants Polymer Soda Ash	Testegy current low high type adjustment current low djustment current low high type adjustment current low high type adjustment current low	Raw 7	Treated 7 7 7 7 7 7 - - - - - - - - - - - - -	Thing characteristics
adjustment based on odour Floride current 0.83 low 0.8 ligh 0.8 adjustment constant	Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidaty temperature pH Floride Color Hardness Mn Fe Alkainnity Microbial Chemical Dosing and Operating St Coagniants Polymer Soda Ash Dissinfection	restery current low high type adjustment current low high type adjustment current low high adjustment current low high type adjustment current low high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high topo high high topo high topo high high high high topo high high high high high high high hig	Raw 7	Treated 7 7 7 7 7 7 7 - - - - - - - - - - - - -	Thing characteristics
Floride current 0.83 Jow 0.8 Nigh 0.8 sdjustment constant	Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidaty temperature pH Floride Color Hardness Mn Fe Alkainnity Microbial Chemical Dosing and Operating St Coagniants Polymer Soda Ash Dissinfection	restery current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type	Raw 7	Treated 7 7 7 7 7 7 - - - - - - - - - - - - -	Thing characteristics
low 0.8 high 0.8 adjustment constant	Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidaty temperature pH Floride Color Hardness Mn Fe Alkainnity Microbial Chemical Dosing and Operating St Coagniants Polymer Soda Ash Dissinfection	Testegy current low high type adjustment current low high type adjustment current low high adjustment current low high type adjustment current low high type adjustment type adjustment type type type	Raw 7	Treated 7 7 7 7 7 - - - - - - - - - - - - -	Thing characteristics
high 0.8 adjustment coustant	Treatment Weekly Sampling Routine free Cl2 total Cl2 total Cl2 tartisdaty temperature pH Floride Color Hardness Mn Fe Alkainnity Microbial Chemical Dosing and Operating St Coagnilants Polymer Soda Aah Disinfection T & O control	restery current low high type adjustment current low high dype adjustment current low high type adjustment current low high type adjustment current low	Raw 7	Treated 7 7 7 7 7 7 7 - - - - - - - - - - - - -	Thing characteristics
adjustment constant	Treatment Weekly Sampling Routine free Cl2 total Cl2 turbidaty temperature pH Floride Color Hardness Mn Fe Alkainnity Microbial Chemical Dosing and Operating St Coagniants Polymer Soda Ash Dissinfection	restery currents low high type adjustment current low high type adjustment current low high adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment type	Raw 7	Treated 7 7 7 7 7 7 7 - - - 8 95 20 400 atum based on turb of raw 0.2 0.1 0.6 0.7 1.9 based on clarifier ac 14 0 65 based on pH 1 0.7 1.9 Cl2 gas based on chlorine re 1.75 0 4 PAC based on odour 0.83 0 1.8 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5	Thing characteristics
	Treatment Weekly Sampling Routine free Cl2 total Cl2 total Cl2 tartisdaty temperature pH Floride Color Hardness Mn Fe Alkainnity Microbial Chemical Dosing and Operating St Coagnilants Polymer Soda Aah Disinfection T & O control	Testegy current low high type adjustment current low diustment current low high type adjustment current low high type adjustment current low high type adjustment type adjustment type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high bow high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high	Raw 7	Treated 7 7 7 7 7 7 - - - - - - - - - - - - -	Thing characteristics
Conner sulfate in RWR no	Treatment Weekly Sampling Routine free Cl2 total Cl2 total Cl2 tartisdaty temperature pH Floride Color Hardness Mn Fe Alkainnity Microbial Chemical Dosing and Operating St Coagnilants Polymer Soda Aah Disinfection T & O control	restery current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high	Raw 7	Treated 7 7 7 7 7 7 7 - - - 8 95 20 400 aburn based on turb of raw 0.2 0.1 0.6 preastol 25-15 based on clarifier set 14 0 0.7 1.9 1.9 5 5 5 5 5 5 5 5 5 5 5 5 5	Thing characteristics
	Treatment Weekly Sampling Routine free Cl2 total Cl2 total Cl2 tarbidaty temperature pH Floride Color Hardness Mn Fe Aksamity Microbial Chemical Dosing and Operating St Coagniants Polymer Soda Ash Disinfection T & O control Floride	Testegy currents low high type adjustment current low high type adjustment currents low high type adjustment currents low high type adjustment currents low high type adjustment currents low high type adjustment currents low high type adjustment currents low high type adjustment currents low high type adjustment currents low high type adjustment currents low high type adjustment currents low high type adjustment currents low high type adjustment currents low high type adjustment currents low high type adjustment currents low high type adjustment currents low high type adjustment currents low high type adjustment currents low high type adjustment currents low high type adjustment currents low high type adjustment currents low high type adjustment currents low high type adjustment currents low high high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high high high high high high high high high high high high high high	Raw 7	Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	Thing characteristics

		1	RLESS LAKE 24-Aug-94
Type of Sample		Raw	Treated
Temperature	deg C	17	20.5
рН		7.8	8
Conductivity	Miro ohms/c	205	230
Turbidity	NTU	3.6	1.7
Total Chlorine	mg/L	-	0.53
Free Chlorine	mg/L	-	0.02
Color	TCU	20	30
Ammonia	mg/L	0.125	0.043
Odour Type		lakey	chlorine
Odour Intensity	out of 3	0.1	1
Flavour Profile	out of 10	NA	4
Flavour Comment	000 01 20		1
THMs	ug/L	-	54
Total Coliforns	cfu/100ml	1150	198
Fecal Coliforns	cfu/100ml	4	<1
Heterotropic Plate Count (48 hr)	cfu/1 mL	244	774
Heterotropic Plate Count (7 days)		272	1175
Klebniella			
	cfu/100ml	confl	79
Fecal Streptococcus	cfu/100ml	36	<1
Molds	cfu/l mL	8	<1
Yeast	cfu/1 mL	35	17
Iron Reducing Bacteria	ong/1 mL	>110	110
Sulfate Reducing Bacteria	org/1 mL	46	24
Sulfite Reducing Bacteria	org/1 ml.	>110	9
Thiosulfate Reducing Bacteria	org/1 ml.	>110	110
Iron Oxidizing Bacteria	org/1 mL	>110	>110
Plant Operations Person hours to operate plant per s			20
T & O problems			yes spring runoff and a
Hardness	high		-
	low		
Recycel Filter Backwash			BO
Distribution system flushing progr			no no distibution syste
Stomac	m3		45
Storage			
Average Daily Production	m3		15
Ave. Theoretical Hydraulic Detenti	on, nr.		72.7
Treatment			CgA/Flc/Rft/NaOCI/T
Weekly Sampling Routine		Raw	Treated
tree CI2			7
otal Cl2			7
nrbidity		7	7
conperature		7	7
pH		7	7
		'	ľ
Floride		_	
Color		7	7
lardness			•
Vin			-
e			-
Alkalinity			-
m			
vicrobial Themical Dosing and Operating St	per month		
Constants	current		2
	low		2
	high		?
			alum antina taula hasha
	type		settling tank broker
	adjustment		
Połymer	adjustment current		0.3
Połymer	adjustment current low		0.3 0.1
Połymer	adjustment current		0.3
Polymer	adjustment current low		0.3 0.1 0.9 7
Polymer	adjustmeni current low high		0.3 0.1 0.9
	adjustmeni current low high type		0.3 0.1 0.9 7
	adjustmeni current low high type adjustment current		0.3 0.1 0.9 7
	adjustment current low high type adjustment current low		0.3 0.1 0.9 7 not adjusted
	adjustment current low high type adjustment current low high		0.3 0.1 0.9 7
oda Ash	adjustmeni current low high type adjustment low high adjustment		0.3 0.1 0.9 7 not adjusted - -
oda Ash	adjustmeni current low high type adjustmeni current low high udjustment current		0.3 0.1 0.9 ? not adjusted - - - ?
oda Ash	adjustmeni current low high type adjustment current low high adjustment current low		0.3 0.1 0.9 7 not adjusted - - - 7 7
oda Ash	adjustmeni curreat low high type adjustment current low high sdjustment current Jow high		0.3 0.1 0.9 7 <b>not adjusted</b> - - 7 7 7
oda Ash	adjustmeni current low high type adjustment current low high adjustment current low		0.3 0.1 0.9 7 not adjusted - - - 7 7
oda Ash	adjustmeni curreat low high type adjustment current low high sdjustment current Jow high		0.3 0.1 0.9 7 <b>not adjusted</b> - - 7 7 7
ioda Ash Disinfection	adjustmeni curreai low high type adjustmeni curreni low high sigustmeni curreni low high type		0.3 0.1 0.9 7 not adjusted - - - ? ? ? ? ? ? ? ? ? ? ? ? ?
Soda Ash Disinfection	adjustmeni curreat low high type adjustment current low high sigustment current low high type adjustment current		0.3 0.1 0.9 7 not adjusted - - - ? ? ? ? ? ? ? ? ? ? ? ? ?
Soda Ash Disinfection	adjustmeni curreat low high type adjustment current low high sdjustment current low high type adjustment current low		0.3 0.1 0.9 7 not adjusted - - - ? ? ? ? NaOCI based on residual -
Soda Ash Disinfection	adjustmeni curreat low high type adjustment current low high seljustment current low high type adjustment current low		0.3 0.1 0.9 7 not adjusted - - - ? ? ? ? ? ? ? ? ? ? ? ? ?
Soda Ash Disinfection	adjustmeni curreat low high type adjustment current low high adjustment current low high type adjustment current low high type		0.3 0.1 0.9 7 not adjusted - - - ? ? ? ? NaOCI based on residual -
Soda Ash Disinfection	adjustmeni curreat low high type adjustment current low high seljustment current low high type adjustment current low		0.3 0.1 0.9 7 not adjusted - - - ? ? ? ? NaOCI based on residual -
Soda Aah Disinfection f & O control	adjustmeni curreat low high type adjustment current low high adjustment current low high type adjustment current low high type		0.3 0.1 0.9 7 not adjusted - - - ? ? ? ? NaOCI based on residual -
Soda Aah Disinfection f & O control	adjustmeni curreat low high type adjustment current low high seljustment current low high type adjustment current low high type adjustment current low		0.3 0.1 0.9 7 not adjusted - - - ? ? ? ? NaOCI based on residual -
ooda Aah Disinfection 6 & O control	adjustmeni curreat low high djustment curreat low high adjustment current low high type adjustment current low high type adjustment current low		0.3 0.1 0.9 7 not adjusted - - - ? ? ? ? NaOCI based on residual -
ooda Aah Disinfection 6 & O control	adjustmeni curreat low high sdjustmeni current low high adjustment current low high type adjustment current low high type adjustment current low high hype		0.3 0.1 0.9 7 not adjusted - - - ? ? ? ? NaOCI based on residual -
Polymer Soda Ash Disinfection F & O control Floride	adjustmeni curreat low high djustment curreat low high adjustment current low high type adjustment current low high type adjustment current low		0.3 0.1 0.9 7 not adjusted - - - ? ? ? ? NaOCI based on residual -

			XSMITH
Type of Sample		Raw	LJun-94 Distributed
Temperature	deg C	7.2	5.9
рН	6 -	7.5	7.5
Conductivity	Miro ohms/c	1420	1480
Turbidity	NTU	1.2	4.4
Total Chlorine	mg/L	NA	NA
Free Chlorine	mg/L	NA	NA
Color	TCU	20	47
Ammonia	mg/L	0.9	0.44
Odour Type		rotten eggs	soda
Odour Intensity	out of 3	3	0.01
Flavour Profile	out of 10	6	6
Flavour Comment			
THMs	ug/L	no Cl	no Cl
Total Coliforms	cfu/100ml	<1	<1
Fecal Coliforms	cfu/100ml	<1	<1
Heterotropic Plate Count (48 hr)	cfu/1 mL	3	4
Heterotropic Plate Count (7 days)		-	1
Klebsiella	cfu/100ml	<1	<1
Fecal Streptococcus	cfu/100ml	<1	<1
Molds	cfu/1 mL	3	0
Yeast	cfu/l mi.	17	0
Iron Reducing Bacteria	org/1 mL	<0.3	<0.3
Sulfate Reducing Bacteria	org/1 mL	15	6
Sulfite Reducing Bacteria	org/1 mL	2	1
Thiosulfate Reducing Bacteria	org/1 ml.	24	110
Iron Oxidizing Bacteria	org/1 ml.	2	4
		l.	
Diant Onemati	· · ·		
Plant Operations	numelic		7
Person hours to operate plant per	W CCL	1	1
T&O problems			yes
r or O providina		at	yes a few about sufur
Hardness	high	ac	a tew soout suitt
rue uness	low		•
	10.0		-
Recycel Filter Backwash			-
Recycel Plant Dockwall			
Distribution system flushing progr	an		yes
			2
Storage	m3	1	682
	<u>uc</u>		002
	m3		909,218
Average Daily Production	m3		
Average Daily Production	m3		909.218
Average Daily Production Ave. Theoretical Hydraulic Detent Treatment	m3	R	909.218 18.0 none
Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine	m3	R Raw	909.218 18.0
Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free Cl2	m3		909.218 18.0 none
Average Daily Production Ave: Theoretical Hydraulic Detent Treatment Weekly Symphing Routine free C12 total C12	m3		909.218 18.0 none
Average Daily Production Ave. Theoretical Hydraulic Detent Treatment <u>Weekly Sampling Routine</u> free C12 total C12 turbidity	m3		909.218 18.0 none
Average Deily Production Ave: Theoretical Hydraulic Detent Treatment Weakly Sampling Routine free C12 total C12 turbidity turberture	m3		909.218 18.0 none
Average Daily Production Ave: Theoretical Hydraulic Detent Treatment Weekly Symphing Routine free C12 total C12	m3		909.218 18.0 none
Average Daily Production Ave: Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride	m3		909.218 18.0 none
Average Daily Production Ave: Theoretical Hydraulic Detent Treatment Weekly Sampling Rowine free C12 total C12 total C12 turbiday temperature pH	m3		909.218 18.0 none
Average Daily Production Ave: Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride	m3		909.218 18.0 none
Average Daily Production Ave: Theoretical Hydraulic Detent Treatment Weekly Sampling Rowine free C12 total C12 total C12 turbidaty temperature pH Floride Color Hardness	m3		909.218 18.0 none
Average Daily Production Ave: Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 turbidity turbidity turberature pH Floride Color Hardness Mn Fe	m3		909.218 18.0 none
Average Daily Production Ave: Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 turbidity turbidity turberature pH Floride Color Hardness Mn Fe	m3		909.218 18.0 none
Average Deally Production Ave: Theoretical Hydraulic Detent Treatment Weekly Sympling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkalimity	mJ ion, hr.		909.218 18.0 none
Average Daily Production Ave: Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkaimity Microbial	m3 ion, hr.		909.218 18.0 none
Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Rowine free C12 total C12 total C12 turbidaty tumperature pH Floride Color Hardness Mn. Fe Alkalinity Microbial Chemical Dosmg. and Operating Si	m3 ion, hr.		909.218 18.0 Distributed - - - - - - - - - - - - - - - - - - -
Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Rowine free C12 total C12 total C12 turbidaty tumperature pH Floride Color Hardness Mn. Fe Alkalinity Microbial Chemical Dosmg. and Operating Si	m3 ion, hr.		909.218 18.0 none
Average Daily Production Ave: Theoretical Hydraulic Detent Treatment <u>Weekly Sampling Routine</u> free C12 total C12 turbidity tumperature pH Floride Color	m3 ion, hr. 		909.218 18.0 Distributed - - - - - - - - - - - - - - - - - - -
Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Rowine free C12 total C12 total C12 turbidaty tumperature pH Floride Color Hardness Mn. Fe Alkalinity Microbial Chemical Dosmg. and Operating Si	m3 ion, hr. 		909.218 18.0 Distributed - - - - - - - - - - - - - - - - - - -
Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Rowine free C12 total C12 total C12 turbidaty tumperature pH Floride Color Hardness Mn. Fe Alkalinity Microbial Chemical Dosmg. and Operating Si	m3 ion, hr. per month trategy courtent low high type		909.218 18.0 Distributed - - - - - - - - - - - - - - - - - - -
Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkaimity Microbial Chemical Dosing and Operating St Coggulants	m3 ion, hr. 		909.218 18.0 Distributed - - - - - - - - - - - - - - - - - - -
Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Rowine free C12 total C12 total C12 turbidaty tumperature pH Floride Color Hardness Mn. Fe Alkalinity Microbial Chemical Dosmg. and Operating Si	m3 jon, hr. per month trategy current low high type adjustment current		909.218 18.0 Distributed - - - - - - - - - - - - - - - - - - -
Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkaimity Microbial Chemical Dosing and Operating St Coggulants	m3 ion, hr. <u>per month</u> <u>trategy</u> current low high type adjustment current low		909.218 18.0 Distributed - - - - - - - - - - - - - - - - - - -
Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkaimity Microbial Chemical Dosing and Operating St Coggulants	m3 ion, hr. per month trategy current loven high type current low high		909.218 18.0 Distributed - - - - - - - - - - - - - - - - - - -
Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkaimity Microbial Chemical Dosing and Operating St Coggulants	m3 per month brangy current low high type sdjustment current low high type		909.218 18.0 Distributed - - - - - - - - - - - - - - - - - - -
Average Deally Production Ave: Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 turbidity turberature pH Floride Color Hardness Min Fe Alkalimity Microbial Chemical Dosing and Operating St Coagulants	m3 ion, hr. <u>per month</u> <u>trategy</u> current low high type adjustment current low high type adjustment		909.218 18.0 Distributed - - - - - - - - - - - - - - - - - - -
Average Deally Production Ave: Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 turbidity turberature pH Floride Color Hardness Min Fe Alkalimity Microbial Chemical Dosing and Operating St Coagulants	m3 ion, hr.		909.218 18.0 Distributed - - - - - - - - - - - - - - - - - - -
Average Deally Production Ave: Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 turbidity turberature pH Floride Color Hardness Min Fe Alkalimity Microbial Chemical Dosing and Operating St Coagulants	m3 per month maggy current low high type adjustment current low high type adjustment current low		909.218 18.0 Distributed - - - - - - - - - - - - - - - - - - -
Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 turbidity turberature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St Coagulants	m3 ion, hr. <u>per month</u> <u>trategy</u> current low high type adjustment current low high type high type low high type low high		909.218 18.0 Distributed - - - - - - - - - - - - - - - - - - -
Average Deally Production Ave: Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 turbiday lemperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating Si Coegulants	m3 ion, hr. per month brategy current low high type adjustment current low high type adjustment current low high type adjustment		909.218 18.0 Distributed - - - - - - - - - - - - - - - - - - -
Average Deally Production Ave: Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 turbiday lemperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating Si Coegulants	m3 ion, hr. per month integy current low high type adjustment current low high type adjustment current low high adjustment current current		909.218 18.0 Distributed - - - - - - - - - - - - - - - - - - -
Average Deily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sympling Routine free C12 total C12 turbiday Emperature pH Floride Color Hardness Mn Fe Alkaimity Microbial Chemical Dosing and Operating St Coegulants	m3 ion, hr. per month trategy courrent low high type adjustment current low high type adjustment current low		909.218 18.0 Distributed - - - - - - - - - - - - - - - - - - -
Average Deily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sympling Routine free C12 total C12 turbiday Emperature pH Floride Color Hardness Mn Fe Alkaimity Microbial Chemical Dosing and Operating St Coegulants	m3 ion, hr. per month transpy current low high type adjustment current low high type adjustment current low high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high		909.218 18.0 Distributed - - - - - - - - - - - - - - - - - - -
Average Daily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkaimity Microbial Chemical Dosing and Operating St Coggulants	m3 ion, hr. Per month Tradegy current low high type adjustment current low high type adjustment current low high adjustment current low high type sdjustment current low high type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type		909.218 18.0 Distributed - - - - - - - - - - - - - - - - - - -
Average Deally Production Ave. Theoretical Hydraulic Detent Treatment Weakly Sampling Routine free C12 turbidity turberature pH Floride Color Hardness Mn Fe Alkaimity Microbial Chemical Dosting and Operating St Coagulants Polymer Sodia Ash Disinfection	m3 ion, hr. per month trategy courrent low high type adjustment current low high djustment current low high type adjustment current low high type adjustment current low high type adjustment current low high djustment current low high djustment current low high djustment current low high djustment current low high djustment current low high djustment current low high djustment current low high djustment current low high djustment current low high djustment current low high djustment current low high djustment current low high djustment current low high djustment current low high djustment current low high djustment current low high djustment current low high djustment current low high djustment current low high djustment current low high djustment current low high djustment current low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high high low high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high		909.218 18.0 Distributed - - - - - - - - - - - - - - - - - - -
Average Deally Production Ave. Theoretical Hydraulic Detent Treatment Weakly Sampling Routine free C12 turbidity turberature pH Floride Color Hardness Mn Fe Alkaimity Microbial Chemical Dosting and Operating St Coagulants Polymer Sodia Ash Disinfection	m3 ion, hr. per month transgy current low high type adjustment current low high adjustment current low high type adjustment current low high type adjustment current low		909.218 18.0 Distributed - - - - - - - - - - - - - - - - - - -
Average Deally Production Ave. Theoretical Hydraulic Detent Treatment Weakly Sampling Routine free C12 turbidity turberature pH Floride Color Hardness Mn Fe Alkaimity Microbial Chemical Dosting and Operating St Coagulants Polymer Sodia Ash Disinfection	m3 ion, hr. Per month <u>trategy</u> current low high type adjustment current low high sdjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low		909.218 18.0 Distributed - - - - - - - - - - - - - - - - - - -
Average Deily Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sympling Routine free C12 total C12 turbiday Emperature pH Floride Color Hardness Mn Fe Alkaimity Microbial Chemical Dosing and Operating St Coegulants	m3 ion, hr. per month traggy courrent low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type		909.218 18.0 Distributed - - - - - - - - - - - - - - - - - - -
Average Deally Production Ave. Theoretical Hydraulic Detent Treatment Weekly Sampling Routine free C12 turbidity turberture pH Floride Color Hardness Mn Fe Alkaimity Microbial Chemical Dosing and Operating St Coagulants Polymer Sodia Anh Disinfection	m3 ion, hr. per month integy current low high type adjustment current low high djustment current low high djustment current low high djustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type type adjustment current low high type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type		909.218 18.0 Distributed - - - - - - - - - - - - - - - - - - -
Average Deally Production Ave. Theoretical Hydraulic Detent Treatment Weakly Sampling Routine free C12 turbidity Lemperature pH Floride Color Hardness Mn Fe Alkaimity Microbial Chemical Docume and Operating St Coagulants Polymer Soda Ash Disinfection	m3 ion, hr. Per month trategy current low high type adjustment current low high type adjustment current low high digh adjustment current low high digh digh adjustment current low high digh adjustment current low high adjustment current low high adjustment current low high digh adjustment current low high adjustment current low high adjustment current low high digh digh adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment current low high adjustment displa blow high adjustment displa blow high adjustment displa blow high adjustment displa blow high adjustment displa blow high adjustment displa blow high adjustment displa blow high adjustment displa blow high adjustment displa blow high adjustment displa blow high adjustment displa blow high adjustment displa blow high adjustment displa blow high adjustment displa blow high adjustment displa blow high adjustment displa blow high adjustment adjustment displa blow high adjustment displa blow high adjustment displa blow high adjustment displa blow high adjustment displa blow high adjustment displa blow high adjustment displa blow high adjustment displa blow high adjustment displa blow high adjustm		909.218 18.0 Distributed - - - - - - - - - - - - - - - - - - -
Average Deally Production Ave. Theoretical Hydraulic Detent Treatment Weakly Sampling Routine free C12 turbidity turberature pH Floride Color Hardness Mn Fe Alkaimity Microbial Chemical Dosting and Operating St Coagulants Polymer Sodia Ash Disinfection	m3 ion, hr. per month transport current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low current low current low current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current		909.218 18.0 Distributed - - - - - - - - - - - - - - - - - - -
Average Deally Production Ave. Theoretical Hydraulic Detent Treatment Weakly Sampling Routine free C12 turbidity Lemperature pH Floride Color Hardness Mn Fe Alkaimity Microbial Chemical Docume and Operating St Coagulants Polymer Soda Ash Disinfection	m3 ion, hr. per month integy current low high type adjustment current low high djustment current low high adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low		909.218 18.0 Distributed - - - - - - - - - - - - - - - - - - -
Average Deally Production Ave. Theoretical Hydraulic Detent Treatment Weakly Sampling Routine free C12 turbidity Lemperature pH Floride Color Hardness Mn Fe Alkaimity Microbial Chemical Docume and Operating St Coagulants Polymer Soda Ash Disinfection	m3 ion, hr. per month transport current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low current low current low current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current		909.218 18.0 Distributed - - - - - - - - - - - - - - - - - - -

		1	SLAVE LAKE	
Type of Sample		Raw	13-Jul-94	Distributed
Temperature	deg C	18.7	18.4	16
pH		7.7	7	7.2
Conductivity	Miro ohms/c	180	210	200
Turbidity	NTU	7.3	0.19	0.22
Total Chlorine	mg/L	NA	1.3	0.62
Free Chlorine	mg/L	NA	1.09	0.32
Color	TCU			
Ammonia		75	10	15
	mg/L	0.032	F., .	·
Odour Type		swampy	chiorine	grassy + fishy
Odour Intensity	out of 3	2	1	1
Flavour Profile	out of 10	NA	4	4
Flavour Comment				
THMs	ug/L	-	54	107
Total Coliforns	cfu/100ml	16	<1	<1
Fecal Coliforns	cfu/100ml	0	<1	<1
Heterotropic Plate Count (48 hr)	cfu/1 mL	155	4	1
Heterotropic Plate Count (7 days)	cfu/1 mL	925	14	59
Klebmella	cfu/100ml	<1	<1	<1
Fecal Streptococcus	cfu/100ml	140	<1	<1
Molds	cfu/1 mL	7	<1	<1
Yeast	cfu/1 mL	153	30	29
Iron Reducing Bacteria	org/1 mL	>110	<0.3	<0.3
Sulfate Reducing Bacteria	org/1 mL	46	<0.3	<0.3
Sulfite Reducing Bacteria	org/1 mL	>110	<0.3	<0.3
Thiorulfate Reducing Bacteria	org/1 mL	>110	<0.3	<0.3
Iron Oxidizing Bacteria	org/1 mL	110	<0.3	<0.3
Plant Operations				
Person hours to operate plant per	week		14	
		1	28 hr on bad weeks	
T & O problems			yes	
r oo o prootann			worst in the spring a	nd fall
Hardness	high		90	10 HU
1382 011-055	iow		80	
	10.4			
			constant	
Recycel Filter Backwash			yea	
			in winter	
Distribution system flushing progr	8770		yes	
Storage	m3		239	
Storage Average Daily Production	ጠ3 ጠ3		239 2461	
	m3			
Average Daily Production	m3		2461	
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment	m3	CRAT	2461 2.3	∎⁄TWR
Average Daily Production Ave. Theoretical Hydraulic Detenti	m3	CgA/I Raw	2461 2.3 gal	D/TWR
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment	m3		2461 2.3 gal O/Fic/Sd/Rflt/Cl2/Fit	2TWR
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine	m3		2461 2.3 gal O/FIe/Sd/Rflt/Cl2/Fit Treated	DTWR
Average Daily Production Ave. Theoretical Hydranlic Detenti Treatment Weekly Sampling Routing free C12 total C12	m3		2461 2.3 gal O/Flc/Sd/Rflt/Cl2/Flt Treated 7	ø/TWR
Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment <u>Weekly Sampling Routine</u> free C12 total C12 tarbidity	m3	Raw 7	2461 2.3 gal O/Fic/Sd/Rflt/Cl2/Fit Treated 7 7 7	¤TWR
Average Deally Production Ave. Theoretical Hydranlic Detenti Treatment Weekly Sampling Routing free C12 total C12 total C12 tarbidity temperature	m3	Raw 7 7	2461 2.3 gal O/FIc/S4/Rft/Ct2/Fit Treated 7 7 7 7	<u>¤T₩R</u>
Average Daily Production Ave. Theoretical Hydranlic Detenti Treatment Weekly Sampling Routing fired C12 totokal C12 totokaly temperature pH	m3	Raw 7 7 7	2461 2.3 gal O/Fic/Sd/Rfit/CI2/Fir Treated 7 7 7 7 7 7	D/TWR
Average Daily Production Ave. Theoretical Hydraniic Detenti Treatment Weekly Sampling Routine free C12 torbidity torbidity temperature pH Floride	m3	Raw 7 7 7 7 7	2461 2.3 gal O/FLe/S4/Rfl/CI2/Fr Treated 7 7 7 7 7 7 7 7 7	⊉/TWR
Average Daily Production Ave. Theoretical Hydranlic Detenti Treatment. <u>Weekly Sampling Routing</u> free C12 total C12 total C12 temperature pH Floride Color	m3	Raw 7 7 7	2461 2.3 gal O/Fic/Sd/Rfit/CI2/Fir Treated 7 7 7 7 7 7	⊿T¥R
Average Daily Production Ave. Theoretical Hydraniic Detenti Treatment Weekly Sampling Routing free C12 total C12 total C12 total C12 total C12 Floride Color Hardness	m3	Raw 7 7 7 7 7	2461 2.3 gal O/FLe/S4/Rfl/CI2/Fr Treated 7 7 7 7 7 7 7 7 7	<u>¤</u> T₩R
Average Daily Production Ave. Theoretical Hydraniic Detenti Treatment Weekly Sampling Routine free C12 torbidity tarbidity temperature pH Floride Color Hardness Mn	m3	Raw 7 7 7 7 7	2461 2.3 gal O/FLe/S4/Rfl/CI2/Fr Treated 7 7 7 7 7 7 7 7 7	⊅T₩R
Average Daily Production Ave. Theoretical Hydranlic Detenti Treatment Weekly Sampling Routing free C12 total C12 total C12 temperature pH Floride Color Hardness Min Fe	m3	Raw 7 7 7 7 7	2461 2.3 gal O/FLe/S4/Rfl/CI2/Fr Treated 7 7 7 7 7 7 7 7 7	₽T₩R
Average Daily Production Ave. Theoretical Hydraniic Detenti Treatment Weekly Sampling Routine free C12 torbidity tarbidity temperature pH Floride Color Hardness Mn	m3	Raw 7 7 7 7 7	2461 2.3 gal O/FLe/S4/Rfl/CI2/Fr Treated 7 7 7 7 7 7 7 7 7	<u>¤TWR</u>
Average Deally Production Ave. Theoretical Hydraulic Detenti Treatment. Weekly Sampling Routing free C12 total C12 tarbidity Emperature pH Floride Color Hardness Mn Fe Alkalinity	m3 on, hr.	Raw 7 7 7 7 7	2461 2.3 gal OVFIc/Sd/Rftk/C12/Ffr 7 7 7 7 7 7 7 7 7 7 - - -	⊅T₩R
Average Daily Production Ave. Theoretical Hydranlic Detenti Treatment Weekly Sampling Routing free C12 total C12 total C12 tarbidity temperature pH Floride Color Hardness Min Fe Allkalinity Microbial	m3 on, hr.	Raw 7 7 7 7 7	2461 2.3 gal O/FLe/S4/Rfl/CI2/Fr Treated 7 7 7 7 7 7 7 7 7	⊿TWR
Average Daily Production Ave. Theoretical Hydraniic Detenti Treatment Weekly Sampling Routine free C12 total C12 total C12 total C12 tarbidity temperature pH Floride Color Hardness Min Fe Alkalinity Microbial Chemical Doging and Operating St	m3 on, hr.	Raw 7 7 7 7 7	2461 2.3 gal O/Flc/Sd/Rflr/Cl2/Fr 7 7 7 7 7 7 7 7 7	<u>¤T₩R</u>
Average Daily Production Ave. Theoretical Hydranlic Detenti Treatment Weekly Sampling Routing free C12 total C12 total C12 tarbidity temperature pH Floride Color Hardness Min Fe Allkalinity Microbial	m3 on, hr.	Raw 7 7 7 7 7	2461 2.3 gal OVFIc/Sd/Rftk/C12/Ffr 7 7 7 7 7 7 7 7 7 7 - - -	¤∕T₩R
Average Daily Production Ave. Theoretical Hydraniic Detenti Treatment Weekly Sampling Routine free C12 total C12 total C12 total C12 tarbidity temperature pH Floride Color Hardness Min Fe Alkalinity Microbial Chemical Doging and Operating St	m3 on, hr. per month natesy	Raw 7 7 7 7 7	2461 2.3 gal O/Flc/Sd/Rflr/Cl2/Fr 7 7 7 7 7 7 7 7 7	<u>¤T₩R</u>
Average Daily Production Ave. Theoretical Hydraniic Detenti Treatment Weekly Sampling Routine free C12 total C12 total C12 total C12 tarbidity temperature pH Floride Color Hardness Min Fe Alkalinity Microbial Chemical Doging and Operating St	m3 on, hr. per month matery current low	Raw 7 7 7 7 7	2461 2.3 gal OVFIc/Sd/Rftk/C12/Ffr 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 8	⊅T₩R
Average Daily Production Ave. Theoretical Hydraniic Detenti Treatment Weekly Sampling Routine free C12 total C12 total C12 total C12 tarbidity temperature pH Floride Color Hardness Min Fe Alkalinity Microbial Chemical Doging and Operating St	m3 on, hr. per month natery current low high	Raw 7 7 7 7 7	2461 2.3 gal OFIc/Sd/Rflr/Cl2Fr Treated 7 7 7 7 7 7 7 7 7 7 7	⊿T¥R
Average Daily Production Ave. Theoretical Hydraniic Detenti Treatment Weekly Sampling Routine free C12 total C12 total C12 total C12 tarbidity temperature pH Floride Color Hardness Min Fe Alkalinity Microbial Chemical Doging and Operating St	m3 on, hr. per month <u>natery</u> courent low high type	Raw 7 7 7 7 7	2461 2.3 gal OVFIc/Sd/Rfk/C12/Ff: 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Average Daily Production Ave. Theoretical Hydranic Detenti Treatment Weekly Sampling Routing free C12 total C12 total C12 tarbidity temperature pH Floride Color Hardness Min Fe Alkalinity Microbial Chemical During and Operating St Coggulants	m3 on, hr. per month <u>meerv</u> current low high type adjustmenti	Raw 7 7 7 7 7	2461 2.3 gal OFIc/Sd/Rflr/Cl2Fr Treated 7 7 7 7 7 7 7 7 7 7 7	
Average Daily Production Ave. Theoretical Hydranic Detenti Treatment Weekly Sampling Routing free C12 total C12 total C12 tarbidity temperature pH Floride Color Hardness Min Fe Alkalinity Microbial Chemical During and Operating St Coggulants	m3 on, hr. per month natery current high type adjustment current	Raw 7 7 7 7 7	2461 2.3 gal OVFIc/Sd/Rfls/Cl2/Fr 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Average Daily Production Ave. Theoretical Hydraniic Detenti Treatment Weekly Sampling Routine free C12 total C12 total C12 total C12 tarbidity temperature pH Floride Color Hardness Min Fe Alkalinity Microbial Chemical Doging and Operating St	m3 on, hr. per month <u>matery</u> current low high type adjustment current low	Raw 7 7 7 7 7	2461 2.3 gal OVFIc/Sd/Rfls/Cl2/Fr 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Average Daily Production Ave. Theoretical Hydranic Detenti Treatment Weekly Sampling Routing free C12 total C12 total C12 tarbidity temperature pH Floride Color Hardness Min Fe Alkalinity Microbial Chemical During and Operating St Coggulants	m3 on, hr. per month matery current low high type adjustment current low high	Raw 7 7 7 7 7	2461 2.3 gal OVFIc/Sd/Rfls/Cl2/Fr 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Average Daily Production Ave. Theoretical Hydranic Detenti Treatment Weekly Sampling Routing free C12 total C12 total C12 tarbidity temperature pH Floride Color Hardness Min Fe Alkalinity Microbial Chemical During and Operating St Coggulants	m3 on, hr. per month nstery current low high type adjustment current low high type	Raw 7 7 7 7 7	2461 2.3 gal OVFIc/Sd/Rfls/Cl2/Fr 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Average Deally Production Ave. Theoretical Hydramlic Detenti Treatment. Weekly Sampling Routine free C12 barbidity temperature pH Floride Color Hardness Win Fe Albalinity Microbial Chemical Doning and Operating St Coggulants	m3 on, hr. per month <u>mery</u> current low high type adjustment type adjustment	Raw 7 7 7 7 7	2461 2.3 gal OVFIc/Sd/Rfls/Cl2/Fr 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Average Daily Production Ave. Theoretical Hydranic Detenti Treatment Weekly Sampling Routing free C12 total C12 total C12 tarbidity temperature pH Floride Color Hardness Min Fe Alkalinity Microbial Chemical During and Operating St Coggulants	m3 on, hr. per month nstery current low high type adjustment current low high type	Raw 7 7 7 7 7	2461 2.3 gal OVFIc/Sd/Rfls/Cl2/Fr 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Average Deally Production Ave. Theoretical Hydramlic Detenti Treatment. Weekly Sampling Routine free C12 barbidity temperature pH Floride Color Hardness Win Fe Albalinity Microbial Chemical Doning and Operating St Coggulants	m3 on, hr. per month <u>mery</u> current low high type adjustment type adjustment	Raw 7 7 7 7 7	2461 2.3 gal OVFIc/Sd/Rfls/Cl2/Fr 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Average Deally Production Ave. Theoretical Hydramlic Detenti Treatment. Weekly Sampling Routine free C12 barbidity temperature pH Floride Color Hardness Win Fe Albalinity Microbial Chemical Doning and Operating St Coggulants	m3 on, hr. per month retery current low high type adjustment low high type adjustment current low high type adjustment current low	Raw 7 7 7 7 7	2461 2.3 gal OVFIc/Sd/Rfls/Cl2/Fr 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Average Deally Production Ave. Theoretical Hydramlic Detenti Treatment. Weekly Sampling Routine free C12 barbidity temperature pH Floride Color Hardness Win Fe Albalinity Microbial Chemical Doning and Operating St Coggulants	m3 on, hr. per month matery current low high type adjustment current low high type adjustment current low high type adjustment current low	Raw 7 7 7 7 7	2461 2.3 gal OVFIc/Sd/Rfls/Cl2/Fr 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Average Deally Production Ave. Theoretical Hydraulic Detenti Treatment. Weekly Sampling Routine free C12 total C12 tarbidity temperature pH Floride Color Solor Hardness Mn Fe Alkalinity Microbial Coegulants Polymer	m3 on, hr. per month nstery current low high type adjustment low high type adjustment low high type adjustment	Raw 7 7 7 7 7	2461 2.3 gal OVFIc/Sd/Rfk/CI2/Fir 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Average Deally Production Ave. Theoretical Hydraulic Detenti Treatment. Weekly Sampling Routine free C12 total C12 tarbidity temperature pH Floride Color Solor Hardness Mn Fe Alkalinity Microbial Coegulants Polymer	m3 on, hr. per month <u>ratery</u> current low high type adjustment current low high type adjustment current low high type adjustment current low	Raw 7 7 7 7 7	2461 2.3 gal OVFIc/Sd/Rfls/Cl2/Ff: Treated 7 7 7 7 7 7 7 7 7 7 7 8 110 5 120 Atuminex III dosing be into a stree 2 2	
Average Deally Production Ave. Theoretical Hydramlic Detenti Treatment. Weekly Sampling Routine free C12 barbidity temperature pH Floride Color Hardness Win Fe Albalinity Microbial Chemical Doning and Operating St Coggulants	m3 on, hr. per month milery current low high type adjustment current low high type adjustment current low high type adjustment current low	Raw 7 7 7 7 7	2461 2.3 gal CVFIe/Sd/Rfk/Cl2/Ffr 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Average Deally Production Ave. Theoretical Hydraulic Detenti Treatment. Weekly Sampling Routine free C12 total C12 tarbidity temperature pH Floride Color Solor Hardness Mn Fe Alkalinity Microbial Coegulants Polymer	m3 on, hr. per month nstery current low high type adjustment current low high type adjustment low high type adjustment current low high high type adjustment current low high high type adjustment current low high high type adjustment current low high high type adjustment current low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type adjustment low high type high type type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high type high high type high high high high high high high hig	Raw 7 7 7 7 7	2461 2.3 gal OVFIc/Sd/Rfk/CI2/Fir 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Average Deally Production Ave. Theoretical Hydraulic Detenti Treatment. Weekly Sampling Routine free C12 total C12 tarbidity temperature pH Floride Color Solor Hardness Mn Fe Alkalinity Microbial Coegulants Polymer	m3 on, hr. per month milery current low high type adjustment current low high type adjustment current low high type adjustment current low	Raw 7 7 7 7 7	2461 2.3 gal CVFIe/Sd/Rfk/Cl2/Ffr 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Average Deally Production Ave. Theoretical Hydraulic Detenti Treatment. Weekly Sampling Routine free C12 total C12 tarbidity temperature pH Floride Color Solor Hardness Mn Fe Alkalinity Microbial Coegulants Polymer	m3 on, hr. per month metry current low high type adjustment current low high type adjustment current low high type adjustment current low high type distored low high type distored low high type	Raw 7 7 7 7 7	2461 2.3 gal OVFIc/Sd/Rfls/Cl2/Ff: Treated 7 7 7 7 7 7 7 7 7 7 7 8 110 5 120 Atuminex III dosing tie into a stres	enting current meter
Average Deally Production Aver. Theoretical Hydranlic Detenti Treatment. Weekly: Sampling Roating free C12 total C12 tarbidity temperature pH Floride Color Hardness Min Fe Alhalinity Microbial Chemical Doxing and Operating St Coagulants Polymer Soda Ash Disinfection	m3 on, hr. per month matexy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high	Raw 7 7 7 7 7	2461 2.3 gal CVFIe/Sd/Rfl/Cl2/Ffr 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	eming current mete
Average Deally Production Aver. Theoretical Hydranlic Detenti Treatment. Weekly: Sampling Roating free C12 total C12 tarbidity temperature pH Floride Color Hardness Min Fe Alhalinity Microbial Chemical Doxing and Operating St Coagulants Polymer Soda Ash Disinfection	m3 on, hr. per month mierzy current low high type adjustment current low high low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high current low high current current low high current current current current current low high current current current current current current low	Raw 7 7 7 7 7	2461 2.3 gal OVFIc/Sd/Rflt/Cl2/Fr 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	enting current meter
Average Deally Production Aver. Theoretical Hydranlic Detenti Treatment. Weekly: Sampling Roating free C12 total C12 tarbidity temperature pH Floride Color Hardness Min Fe Alhalinity Microbial Chemical Doxing and Operating St Coagulants Polymer Soda Ash Disinfection	m3 on, hr. per month mercy current low high type adjustment current low high type adjustment current low high digh type adjustment current low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high high low high high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high high high high high high high hig	Raw 7 7 7 7 7	2461 2.3 gal OVFIc/Sd/R fls/C12/Ff: 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	enting current meter
Average Deally Production Aver. Theoretical Hydranlic Detenti Treatment. Weekly: Sampling Roating free C12 total C12 tarbidity temperature pH Floride Color Hardness Min Fe Alhalinity Microbial Chemical Doxing and Operating St Coagulants Polymer Soda Ash Disinfection	m3 on, hr. per month matery current low high type adjustment current low high dijustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type low high type low high type low high type low high type low high type low high type low high type low high low high type low high type low high high low high high type low high high type low high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high	Raw	2461 2.3 gal CVFIc/Sd/Rfl/C12/Ffr 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	enting current meter
Average Deally Production Aver. Theoretical Hydranlic Detenti Treatment. Weekly: Sampling Roating free C12 total C12 tarbidity temperature pH Floride Color Hardness Min Fe Alhalinity Microbial Chemical Doxing and Operating St Coagulants Polymer Soda Ash Disinfection	m3 on, hr. per month mer month reserv current low high type adjustment current low high dijustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type djustment current low high type djustment current low high type djustment current low high type djustment current low high type djustment current low high type djustment current low high type djustment current low high type	Raw	2461 2.3 gal OVFIe/Sd/Rfls/Cl2/Ff: 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	eming current mete ring plant (inline as
Average Deally Production Aver. Theoretical Hydramlic Detenti Treatment. Weekly Sampling Routine free C12 barbidity temperature pH Floride Color Hardness Min Fe Altalinity Wicrobial Chemical Doning and Operating St Coagalants Polymer Soda Ash Disinfection	m3 on, hr. per month mery current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high	Raw	2461 2.3 gal CVFIc/Sd/Rfl/C12/Ffr 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	eming current meter
Average Deally Production Aver. Theoretical Hydramlic Detenti Treatment. Weekly Sampling Routine free C12 barbidity temperature pH Floride Color Hardness Min Fe Altalinity Wicrobial Chemical Doning and Operating St Coagalants Polymer Soda Ash Disinfection	m3 on, hr. per month mer month reserv current low high type adjustment current low high dijustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type djustment current low high type djustment current low high type djustment current low high type djustment current low high type djustment current low high type djustment current low high type djustment current low high type	Raw	2461 2.3 gal OVFIe/Sd/Rfls/Cl2/Ff: 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	eming current meter
Average Deally Production Aver. Theoretical Hydramlic Detenti Treatment. Weekly Sampling Routine free C12 barbidity temperature pH Floride Color Hardness Min Fe Altalinity Wicrobial Chemical Doning and Operating St Coagalants Polymer Soda Ash Disinfection	m3 on, hr. per month mery current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high high	Raw	2461 2.3 gal OVFIc/Sd/Rfk/C12/FF Treated 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	eming current meter
Average Deally Production Aver. Theoretical Hydramlic Detenti Treatment. Weekly Sampling Routine free C12 barbidity temperature pH Floride Color Hardness Min Fe Altalinity Wicrobial Chemical Doning and Operating St Coagalants Polymer Soda Ash Disinfection	m3 on, hr. per month ratery current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	Raw	2461 2.3 gal CVFIe/Sd/Rfl/C12/Ffr Treated 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	eming current meter
Average Deally Production Ave. Theoretical Hydraulic Detenti Treatment. Weekly Sampling Routine free C12 total C12 tarbidity temperature pH Floride Color Solor Hardness Mn Fe Alkalinity Microbial Coegulants Polymer	m3 on, hr. per month matery current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type ball type ball type ball type ball type ball type ball type type ball type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type type	Raw	2461 2.3 gal OVFIe/Sd/Rfls/Cl2/Ff 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	eming current meter

			SMITH	
Trme of Comple		Base	14-Jul-94	Distant.
Type of Sample Temperature	deg C	Raw 21	Treated 20.3	Distributed 13.4
pH	ung C	8.4	8	7.9
Conductivity	Miro ohme/c	350	350	375
Turbidiry	NTU	6.3	0.21	0.32
Total Chlorine	mg/L	NA	0.81	0.53
Free Chlorine	mg/L	NA	0.7	0.4
Color	TCU	15	0	0
Ammonia	mgL	0.019	-	-
Odour Type		поле	somthing ??	chlorine
Odour Intensity	out of 3	0	0.1	0.5
Flavour Profile	out of 10	NA	7	7
Flavour Comment				
THMs	ug/L	-	43	84
Total Coliforms	cfa/100ml	4	<1	<1
Fecal Coliforms	cfu/100ml	<1	<1	<1
Heterotropic Plate Count (48 hr)	cfu/1 mL	19	<1	<1
Heterotropic Plate Count (7 days)	cfu/1 mL	187	0	1
Klebaiella	cfu/100ml	2	<1	<1
Fecal Streptococcus	cfa/100ml	5	<1	<1
Molds	cfu/1 mL	0	0	<1
Yessi In the Sector Destroit	cfu/1 mL	15	<1	<1
fron Reducing Bacteria	org/1 mL	24	<0.3	<0.3
Sulfate Reducing Bacteria	org/1 mL	8	<0.3	<0.3
Sulfite Reducing Bacteria	org/1 mL	24	<0.3	<0.3
Thiosulfate Reducing Bacteria	org/1 mL	110	<0.3	<0.3
Iron Oxidizing Bacteria	org/i mL	46	<0.3	<0.3
		1		
Plant Operations		<u> </u>	L	I
Person hours to operate plant per v	veck	ţ	7	
T & O problems			попе	
Hardness	high		-	
	low	1	-	
			Q	
Recycel Filter Backwash			по	
-		i		
Distribution system flushing progra	BETTL	ł	yes	
54	1	1	164	
Storage	m3 m3	1	454	
Average Daily Production			113.65225	
Ave. Theoretical Hydraulic Detenti	on, dr.	ł	95.9	
Treatment			WR/CgA/Pft/Cl2/TV	/ne
Weekly Sempling Routine		Raw	Treated	
free Ci2		1	7	
total Cl2		1		
tarbidity		7	7	
temperature			-	
		7	7	
uН				
		r		
Floride		7	7	
Floride Color		7	7	
Floride Color Hardness		7	7 - -	
pH Floride Color Hardness Mn Fe		7	7 - -	
Floride Color Hardness Mn Fe		7	7 - - -	
Floride Color Hardness Mn		7	7	
Floride Color Hardness Mn Fe Alkalinity Microbial	per month	7	7 	
Floride Color Hardness Mn Fe Alkelinity Microbial Chemical Dosing and Operating St	TRICEY	7	7	
Floride Color Hardness Mn Fe Alkalinity Microbial	current	7	7	
Florade Color Hardness Mn. Fe Alkelinity Microbial Chemical Dosung and Operating St	rategy current low	7	24	
Florade Color Hardness Mn. Fe Alkelinity Microbial Chemical Dosung and Operating St	rategy current low high	7	24 24	
Floride Color Hardness Mn Fe Alkelinity Microbial Chemical Dosing and Operating St	ratery current low high type		24 24 pass 100	
Floride Color Hardness Mn. Fe Alkelinity Microbial <u>Chemical Dosing and Operating St</u> Coggulants	rategy current low high type adjustment		24 24	sth frequency is cha
Florade Color Harchness Mn. Fe Alkalinity Microbial <u>Chemical Dosing and Operating St</u> Coggulants	rategy current low high type adjustment current		24 24 pass 100	ash frequency is cha
Floride Color Hardness Mn Fe Alkelinity Microbial Chemical Dosing and Operating St	ratery current low high type adjustment current low		24 24 pass 100 not adjusted, backwa -	ssh frequency is cha
Florade Color Harchness Mn. Fe Alkalinity Microbial <u>Chemical Dosing and Operating St</u> Coggulants	ratery current low high type adjustment current low high		24 24 pass 100	sth frequency is cha
Florade Color Harchness Mn. Fe Alkalinity Microbial <u>Chemical Dosing and Operating St</u> Coggulants	rategy current low high type adjustment current low high type		24 24 pass 100 not adjusted, backwa -	seh frequency is cha
Floride Color Hardness Mn Fe Alkatinity Microbial <u>Chemical Dosmg and Operating St</u> Coagulants	ratery current low high type adjustment current low high type adjustment		24 24 pass 100 not adjusted, backwa -	ash frequency is cha
Floride Color Hardness Mn Fe Alkatinity Microbial <u>Chemical Dosmg and Operating St</u> Coagulants	ratery current low high djustment current low high high current current		24 24 pass 100 not adjusted, backwa -	sth frequency is cha
Floride Color Hardness Mn Fe Alkatinity Microbial <u>Chemical Dosmg and Operating St</u> Coagulants	ratery current low high type adjustment current low high type adjustment current low		24 24 pass 100 not adjusted, backwa -	sah frequency is cha
Floride Color Hardness Mn. Fe Alkelinity Microbial <u>Chemical Dosing and Operating St</u> Coggulants	ratery current low high type adjustment current low high type adjustment current low high		24 24 pass 100 not adjusted, backwa -	ash frequency is cha
Floride Color Hardness Mn. Fe Alkalinity Microbial Chemical Dosting and Operating St Coagniants Polymer Soda Asb	retery current low high type adjustment current low high adjustment current low high adjustment		24 24 pass 100 not adjusted, backw - - - - - - -	sth frequency is cha
Floride Color Hardness Mn. Fe Alkalinity Microbial Chemical Dosting and Operating St Coagniants Polymer Soda Asb	retery current low high type adjustment current low high type current low high adjustment current current current current current		24 24 pass 100 not adjusted, backw - - - - - - - - 2	sah frequency is cha
Floride Color Hardness Mn. Fe Alkalinity Microbial Chemical Dosting and Operating St Coagniants Polymer Soda Asb	retery current low high type adjustment current low high adjustment current low high adjustment current low		24 24 pass 100 not adjusted, backwe - - - - - - - - - - - - - - - - - - -	ssh frequency is cha
Floride Color Hardness Mn. Fe Alkalinity Microbial Chemical Dosting and Operating St Coagniants Polymer Soda Asb	referey current low high type adjustment current low high type adjustment current low high adjustment current low high high high		24 24 pass 100 not adjusted, backw - - - - - - 2 1.6 2.3	sth frequency is cha
Floride Color Hardness Mn. Fe Alkalinity Microbial Chemical Dosting and Operating St Coagniants Polymer Soda Asb	retery current low high type adjustment current low high type adjustment current low high high type type type type	tinear relationship)	24 24 pass 100 not adjusted, backw - - - - - - - 2 1.6 2.3 C12 gas	ash frequency is cha
Floride Color Harchness Mn. Fe Alkalinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coagulants Polymer Soda Ash Disinfection	restery current low high type adjustment current low high type adjustment current low high type adjustment current low high type		24 24 pass 100 not adjusted, backwo - - - - - 22 1.6 2.3 22 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5	ssh frequency is cha
Floride Color Harchness Mn. Fe Alkalinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coagulants Polymer Soda Ash Disinfection	referey current low high type adjustment current low high type adjustment current low high adjustment current low high adjustment current low	tinear relationship)	24 24 24 24 24 25 26 24 24 24 26 25 26 26 23 27 28 26 23 27 29 26 23 27 29 26 23 27 29 26 29 29 20 29 20 20 20 20 20 20 20 20 20 20 20 20 20	ssh frequency is cha
Floride Color Harchness Mn. Fe Alkalinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coagulants Polymer Soda Ash Disinfection	retery current low high type adjustment current low high type adjustment current low high high type adjustment current low high bype high bype high bype high bype bype bype bype bype bype bype bype	tinear relationship)	24 24 pass 100 not adjusted, backwe - - - - - 22 1.6 2.3 22 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5	sih frequency is cha
Floride Color Hardness Mn Fe Alkalinity <u>Microbial</u> <u>Chemical Dosmg and Operating St</u> Coagulants	misery current low high type adjustment current low high adjustment current low high adjustment current low high type sadjustment current low high high high high high high high hig	tinear relationship)	24 24 24 24 24 25 26 24 24 24 26 25 26 26 23 27 28 26 23 27 29 26 23 27 29 26 23 27 29 26 29 29 20 29 20 20 20 20 20 20 20 20 20 20 20 20 20	sth frequency is cha
Floride Color Harchness Mn. Fe Alkalinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coagulants Polymer Soda Ash Disinfection	retery current low high type adjustment current low high type adjustment current low high adjustment current low high type adjustment current low high type type type	tinear relationship)	24 24 24 24 24 25 26 24 24 24 26 25 26 26 23 27 28 26 23 27 29 26 23 27 29 26 23 27 29 26 29 29 20 29 20 20 20 20 20 20 20 20 20 20 20 20 20	sch frequency is cha
Floride Color Harchness Mn. Fe Alkakinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coagnismts Polymer Sodia Asib Disinfection T & O control	misery current low high type adjustment current low high sdjustment current low high type adjustment current low high type adjustment current low high type adjustment current adjustment current adjustment current low high	tinear relationship)	24 24 24 24 24 25 26 24 24 24 26 25 26 26 23 27 28 26 23 27 29 26 23 27 29 26 23 27 29 26 29 29 20 29 20 20 20 20 20 20 20 20 20 20 20 20 20	ash frequency is cha
Floride Color Harchness Mn. Fe Alkalinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coagulants Polymer Soda Ash Disinfection	merey current low high signstment current low high type adjustment current low high signstment current low high type adjustment current low high type current low high type current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current	tinear relationship)	24 24 24 24 24 25 26 24 24 24 26 25 26 26 23 27 28 26 23 27 29 26 23 27 29 26 23 27 29 26 29 29 20 29 20 20 20 20 20 20 20 20 20 20 20 20 20	sîh frequency is cha
Floride Color Harchness Mn. Fe Alkakinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coagnismts Polymer Sodia Asib Disinfection T & O control	Telesy current low high type adjustment current low high type adjustment current low high adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high blow high type adjustment current low high blow high blow high blow high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high high high high high high high hig	tinear relationship)	24 24 24 24 24 25 26 24 24 24 26 25 26 26 23 27 28 26 23 27 29 26 23 27 29 26 23 27 29 26 29 29 20 29 20 20 20 20 20 20 20 20 20 20 20 20 20	sah frequency is cha
Forcide Color Hardness Mn. Fe Alkelinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coagulants Polymer Soda Ash Disinfection T & O control	merey current low high signstment current low high type adjustment current low high signstment current low high type adjustment current low high type current low high type current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current	tinear relationship)	24 24 24 24 24 25 26 24 24 24 26 25 26 26 23 27 26 26 23 27 29 26 20 27 29 20 20 20 20 20 20 20 20 20 20 20 20 20	ash frequency is cha

		SWAN HILLS 7-Jun-94		SWAN HILLS 7-Jun-94	
Type of Sample		Freeman Lake	Raw	Treated	Distributed
Temperature	deg C		10	10	8
pH			8	8.2	8.2
	Miro ohms/c		140	190	285
	NTU	1	1.3	0.11	0.13
			NA	0.7	
	mg/L mg/L		NA	0.75	0.31
Color	TCU		35		1
				5	1
	mg/L		0.002	-	-
Odour Type			Swampy-woody	Chlorine	-
	out of 3		1.5		
Flavour Profile	out of 10	[	NA	6.5	-
Flavour Comment					
	_				1
THMs	ug/L	-	-	-	•
			Í		
	cfu/100ml	6	6	<i< td=""><td>&lt;1</td></i<>	<1
	cfu/100ml	<1	<1	<1	<1
	cfu/1 mL	10	7	<1	55
Heterotropic Plate Count (7 days)		237	243	<1	185
	cfa/100ml	<1	<1	<1	<1
	<b>cfu/100ml</b>	1	2	<1	<1
	cfu/l mL	-	-	-	-
	cfu/l mL	-	-	•	-
Iron Reducing Bacteria	org/1 mL		1		
	org/1 mL	1			
	org/1 mL				
	org/1 mL				
	org/1 mL			1	
1			1		
Plant Operations				L	
Person hours to operate plant per w	eek	1	1	80	
		1	1		
T & O problems				yes	
1 ac O problems				yes fizhy smell	
Hardness	12.1	[		neny smell	
	high			•	
	low			-	
Recycel Filter Backwash				no	
Distribution system flushing program	m			yes	
I_	_				
	<u>m3</u>			3182	
	m3			852	
Ave. Theoretical Hydraulic Detentio	n, hr.			89.6	
Treatment			CgA/Ct	/Flu/Rfit/PPCl2/NaO	CI/TWR
Weekly Sampling Routine		Freeman Lake	Raw	Treated	
free C12				7	
total CI2				-	
turbidity			7	7	
temperature			7	7	
pH			7	7	
Floride				Ĺ	
			l.,	7	
Color			7		
Color Hardness			/	0.5	
Color Hardness Mn			/		
Color Hardness Mn Fe			/	0.5 - -	
Color Hardness Mn			/		
Color Hardiness Mn Fe Alkalimity	ner month			0.5 - -	
Color Hardness Mn, Fe Alkalmity Microbial	per month		/	0.5 - -	
Color Hardness Mn Fe Alkalmity Microbial Chemical Dosing and Operating Str	alegy			0.5	
Color Harchess Mn Fe Alkalimity <u>Microbriat</u> <u>Chemical Doming and Operating Stri</u> Cogguiants	elegy current			0.5 - 0.5 ?	
Color Hardness Mn Fe Alkalmity <u>Microbial</u> <u>Chemical Dosing and Operating Str</u> Coagalants	nlegy current low		7	0.5 - 0.5 ? ?	
Color Hardness Mn, Fe Alkalmity <u>Microbrat</u> <u>Chemical Dosing and Operating Str</u> Coagulants	alegy current low high			0.5 0.5 7 7 7	
Color Hardness Mn Fe Alkalmity <u>Microbial</u> <u>Chemical Dosing and Operating Str</u> Congulants	alegy current low high type			0.5 - 0.5 ? ? ? ?	
Color Hardness Mn Fe Alkalmity Microbial <u>Chemical Dosing and Operating Str</u> Coagalants	alegy current low high type adjustment	ged		0.5 - - 0.5 ? ? ? ? ? ? ? ?	
Color Hardness Mn Fe Alkalmity <u>Microbial</u> <u>Chemical Dosing and Operating Str</u> Coagailants Polymer	slegy current low high type adjustment current	ged		0.5 - 0.5 ? ? ? ?	
Color Hardness Mn Fe Alkalmity <u>Microbial</u> <u>Chemical Dosing and Operating Str</u> Coagulants Polymer	alegy current low high type adjustment current low	ged		0.5 - - 0.5 ? ? ? ? ? ? ? ?	
Color Hardness Mn Fe Alkalmity <u>Mcrobial</u> <u>Chemical Dosing and Operating Str</u> Cosgulants Polymer	stegy current low high type adjustment current low high	ged		0.5 - - 0.5 ? ? ? ? ? ? ? ?	
Color Hardnotes Mn Fe Alkalmity <u>Microbiat</u> <u>Chemical Dosing and Operating Str</u> Coagalants Polymer	degy current low high type adjustment current low high type	ged		0.5 - - 0.5 ? ? ? ? ? ? ? ?	
Color Hardress Mn Fe Alkalmity <u>Microbial</u> <u>Chemical Dosing and Operating Str</u> Coagulants Polymer	degy current low high adjustment current low high type adjustment	ged		0.5 	
Color Hardness Mn Fe Alkalimity <u>Microbial</u> <u>Chemical Dosing and Operating Str</u> Cosgulants Polymer Soda Ash	degy current low high cype adjustment current low high high current current	ged		0.5 - - 0.5 ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ?	
Color Harchores Mn Fe Alkalimity <u>Microbrial</u> <u>Chemical Dosing and Operating Str</u> Coagalants Polymer Soda Aah	stegy current low high sdjustment current low high type adjustment coarent low	ged		0.5 - - 0.5 ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ?	
Color Hardness Mn Fe Alkalmity <u>Microbial</u> <u>Chemical Dosing and Operating Str</u> Coagulants Polymer Soda Ash	stegy current low high yype adjustment current low high ype adjustment current low high	ged		0.5 	
Color Hardness Mn Fe Alkalmity <u>Microbial</u> <u>Chemical Dosing and Operating Str</u> Cosgulants Polymer Soda Ash	tegy current low high dijustment current low high söjustment current low high adjustment	ged		0.5 	
Color Hardness Mn Fe Alkalmity <u>Microbrial</u> <u>Chemical Dosing and Operating Str</u> Coagalants Polymer Soda Aah Disinfection.	stegy current low high sdjustment current low high sdjustment current low high adjustment current current	ged		0.5 	
Color Hardness Mn Fe Alkalmity <u>Microbrial</u> <u>Chemical Dosing and Operating Str</u> Coagalants Polymer Soda Aah Disinfection.	tegy current low high dijustment current low high söjustment current low high adjustment	ged		0.5 	
Color Hardness Mn Fe Alkalmity <u>Microbial</u> <u>Chemical Dosing and Operating Str</u> Coagulants Polymer Soda Ash Disinfection	stegy current low high sdjustment current low high djustment current low high adjustment current current	ged		0.5 	
Color Hardness Mn Fe Alkalmity <u>Microbial</u> <u>Chemical Dosing and Operating Str</u> Coggalants Polymer Soda Aah Disinfection	tegy current low high current current low high adjustment current low high adjustment current low	ged		0.5 	
Color Hardness Mn Fe Alkalmity <u>Microbial</u> <u>Chemical Dosing and Operating Str</u> Coagalants Polymer Sodu Ash Disinfection	stegy carrent low high cype adjustment current low high type carrent low high high high high type	ged		0.5 - - 0.5 ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ?	
Color Hardness Mn Fe Alkalmity <u>Microbial</u> <u>Chemical Dosing and Operating Str</u> Coagalants Polymer Soda Aah Disinfection	tegy current low high current current low high adjustment current low high adjustment current low	ged		0.5 	
Color Harchorsa Mn Fe Alkalimity <u>Microbial</u> <u>Chemoical Dosing and Operating Str</u> Coagalants Polymer Soda Aah Disinfection	tegy current low high current current low high adjustment current low high adjustment current low high adjustment current current	ged		0.5 - - 0.5 ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ?	
Color Hardness Mn Fe Alkalmity <u>Microbial</u> <u>Chemical Dosing and Operating Str</u> Coagalants Polymer Soda Ash Disinfection	tegy carrent low high cype adjustment current low high type adjustment current low high type adjustment current low bigh low	ged		0.5 	
Color Hardness Mn Fe Alkalmity <u>Microbial</u> <u>Chernical Dosing and Operating Str</u> Coagealants Polymer Soda Aah Disinfection T & O control	tesy current low high sojustment current low adjustment current low high adjustment current low high sojustment current low high bow high low high bow	ged		0.5 - - 0.5 ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ?	
Color Harchoesa Mn Fe Alkalimity <u>Microbial</u> <u>Chemical Dosing and Operating Str</u> Coagalants Polymer Soda Aah Disinfection T & O control	tegy current low high current current dow high adjustment current low high adjustment current low high adjustment current low high bype current low high type	ged		0.5 - - 0.5 ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ?	
Color Hardness Mn Fe Alkalmity <u>Microbial</u> <u>Chemical Dosing and Operating Str</u> Coagalants Polymer Soda Ash Disinfection	tery current low high type adjustment current low high dystment current low high dystment current low high type adjustment current low high type adjustment adjustment	ged		0.5 	
Color Hardness Mn Fe Alkalmity <u>Microbial</u> <u>Chemical Dosing and Operating Str Congulants</u> Polymer Soda Ash Disinfection T & O control Floride	tesy current low high sojustment current low high sojustment current low high sojustment current low high sojustment current low high type current low high type current low high type current current low	ged		0.5 	
Color Hardness Mn Fe Alkalmity <u>Microbial</u> <u>Chemical Dosing and Operating Str</u> Coagalants Polymer Soda Aah Disinfection T & O control	tegy current low high type adjustment current adjustment current low high adjustment current low high adjustment current low high type adjustment current low high type adjustment current low bigh type adjustment current low bigh type adjustment current low	ged		0.5 	
Color Hardness Mn Fe Alkalmity <u>Microbial</u> <u>Chemical Dosing and Operating Str</u> Congulants Polymer Soda Ash Disinfection T & O control Floride	tesy current low high type adjustment current low high dysement current low high dysonent current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	ged		0.5 	
Color Hardness Mn Fe Alkalmity <u>Microbial</u> <u>Chemical Dosing and Operating Str Congulants</u> Polymer Soda Aah Disinfection T & O control Floride	tegy current low high type adjustment current adjustment current low high adjustment current low high adjustment current low high type adjustment current low high type adjustment current low bigh type adjustment current low bigh type adjustment current low	ged		0.5 	

			TANGENT	
Type of Sample		Raw	20-Jul-94 Treated	Distributed
Temperature	deg C	K.RW	Ireated	Distributed
pH	acg o	8.8	8.8	8.7
Conductivity	Miro ohms/c	330	395	380
Turbidity	NTU	1.1	0.42	0.53
Total Chlorine	mg/L	NA	1.3	0.99
Free Chlorine	mg/L	NA	0.9	0.53
Color	TCU	5	0	0
Ammonia	mg/L	0.023		-
Odour Type		swampy	swampy	swampy
Odour Intensity	out of 3	2	0.5	1
Flavour Profile	out of 10	NA	5	5
Flavour Comment				
THMs	ug/L	•	201	230
		1		
Total Coliforms	cfa/100ml	12	<1	<1
Fecal Coliforms	cfu/100ml	<1	<1	<1
Heterotropic Plate Count (48 hr)	cfu/1 mL	117	26	3
Heterotropic Plate Count (7 days)		237	266	240
Klebziella	cfu/100ml	967	<1	<1
Fecal Streptococcus	cfu/100ml	17	<1	1
Molds	cfu/i mL	3	0	0
Yeast	cfu/l mL	47	3	<1
Iron Reducing Bacteria	org/1 mL	>110	2	0.9
Sulfate Reducing Bacteria	org/1 mL	2	<0.3	0.4
Sulfite Reducing Bacteria	org/1 mL	46	<0.3	0.4
Thiosulfate Reducing Bacteria	org/1 mJ.	110	?	?
Iron Oxidizing Bacteria	org/1 mL	110	<0.3	<0.3
-	-	1		1
		1		
Plant Operations				
Person hours to operate plant per v	week	1	11	
		1	3 hr per wk maintai	LEACE
T & O problems			yes	
•			spring turn over	
Hardness	bigh		-10	
	low		-	
			no complaints	
Recycel Filter Backwash			yes	
			backwash to RWR	
	9m		20	
			200	
Distribution system futuring prog-				
			13	
Storage	<b>m</b> 3		13	
Storage Average Daily Production	m3 m3		12	
Distribution system flushing progr Storage Average Daily Production Ave. Theoretical Hydraulic Detenti	m3 m3			
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti	m3 m3		12 26.0	R
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment	m3 m3	Raw	12 26.0 RWR/Pft/NsOCI/TW	R
Storage Average Daily Production Ave: Theoretical Hydraulic Deteni Treatment Weekly Sampling Routing	m3 m3		12 26.0 RWR/Pfb/NsOCi/TW Trested	R
Storage Average Daily Production Ave. Theoretical Hydranlic Detenti Treatment Weekly Sampling Routine free C12	m3 m3		12 26.0 RWR/Pftr/NsOCUTW Treated 7	R
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12	m3 m3	Raw	12 26.0 RWR/Pftr/NeOCI/TW Treated 7 7	Ř
Storage Average Daily Production Ave. Theoretical Hydraulic Detenin Treatment Weekly Sampling Routine free C12 total C12 total C12 turbidity	m3 m3		12 26.0 RWR/Pftr/NsOCUTW Treated 7	Ř
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routing free C12 total C12 turbidity Lamperature	m3 m3	Raw	12 26.0 RWR/Pftr/NeOCI/TW Treated 7 7	R
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity Lemperature pH	m3 m3	Raw 7	12 26.0 RWR/Pfs/NsOC//TW Treated 7 7 7	<u>R</u>
Storage Average Daily Production Ave. Theoretical Hydraulic Detenin Treatment Weekly Sampling Routine free C12 totolal C12 turbidity tempersure pH Floride	m3 m3	Raw 7	12 26.0 RWR/Pfs/NsOC//TW Treated 7 7 7	R
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routing free C12 Lotal C12 Lotal C12 Lamperature pH Floride Color	m3 m3	Raw 7	12 26.0 RWR/Pfs/NsOC//TW Treated 7 7 7	R
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity Lemperature pH Floride Color Hardness	m3 m3	Raw 7	12 26.0 RWR/Pfs/NsOC//TW Treated 7 7 7	R
Storage Average Daily Production Ave. Theoretical Hydraulic Detenin Treatment Weekly Sampling Routine free C12 tothidity temperature pH Floride Color Hardness Mn	m3 m3	Raw 7	12 26.0 RWR/Pfs/NsOC//TW Treated 7 7 7	R
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routing free C12 Lotal C12 Lotal C12 Lampersture pH Floride Color Hardness Mn Fe	m3 m3	Raw 7	12 26.0 RWR/Pfs/NsOC//TW Treated 7 7 7	R
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routing free C12 Lotal C12 Lotal C12 Lampersture pH Floride Color Hardness Mn Fe	m3 m3	Raw 7	12 26.0 RWR/Pfs/NsOC//TW Treated 7 7 7	R
Storage Average Daily Production Ave. Theoretical Hydraulic Detenin Treatment Weekly Sampling Routine free C12 toubidity temperature pH Floride Color Hardness Mn Fe Alkalmity	m3 m3 oon, hr.	Raw 7	12 26.0 RWR/Pfs/NsOC//TW Treated 7 7 7	R
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 total C12 tambrature pH Floride Color Hardness Ma Fe Alkalimity Microbial	m3 m3 on, hr.	Raw 7	12 26.0 RWR/Pfs/NsOC//TW Treated 7 7 7	R
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity Lemperature pH Floride Color Hardness Ma Fe Alkalmity Microbial Chemical Dosing and Operating St	m3 m3 on, hr.	Raw 7	12 26.0 RWR/Pfs/NsOC//TW Treated 7 7 7	R
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 total C12 tambrature pH Floride Color Hardness Ma Fe Alkalimity Microbial	m3 m3 on, hr.	Raw 7	12 26.0 RWR/Pfs/NsOC//TW Treated 7 7 7	R
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity Lemperature pH Floride Color Hardness Ma Fe Alkalmity Microbial Chemical Dosing and Operating St	m3 m3 oon, hr. per month retegy current low	Raw 7	12 26.0 RWR/Pfs/NsOC//TW Treated 7 7 7	R
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity Lemperature pH Floride Color Hardness Ma Fe Alkalmity Microbial Chemical Dosing and Operating St	m3 m3 on, hr. per month retegy current low high	Raw 7	12 26.0 RWR/Pfs/NsOC//TW Treated 7 7 7	R
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity Lemperature pH Floride Color Hardness Ma Fe Alkalmity Microbial Chemical Dosing and Operating St	m3 m3 oon, hr. per month retegy current low high type	Raw 7	12 26.0 RWR/Pfs/NsOC//TW Treated 7 7 7	R
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 totolal C12 turbidity temperature pH Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Dosing and Operating St Coeguiants	m3 m3 oon, hr. per month rategy current low high type adjustment	Raw 7	12 26.0 RWR/Pfs/NsOC//TW Treated 7 7 7	R
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity Lemperature pH Floride Color Hardness Ma Fe Alkalmity Microbial Chemical Dosing and Operating St	m3 m3 oon, hr. per month retegy current low high type	Raw 7	12 26.0 RWR/Pfs/NsOC//TW Treated 7 7 7	R
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 totolal C12 turbidity temperature pH Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Dosing and Operating St Coeguiants	m3 m3 oon, hr. per month retegy current low high type adjustment current low	Raw 7	12 26.0 RWR/Pfs/NsOC//TW Treated 7 7 7	R
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 tamperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St Congulants	m3 m3 ion, hr. per month rategy current low high type adjustment current low high	Raw 7	12 26.0 RWR/Pfs/NsOC//TW Treated 7 7 7	R
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 tamperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St Congulants	m3 m3 on, hr. per month recey current low high type adjustment current low high type type	Raw 7	12 26.0 RWR/Pfs/NsOC//TW Treated 7 7 7	<u>R</u>
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weakly Sampling Routing free C12 Lotal C12 Lot	m3 m3 oon, hr. per month retegy current low high type adjustment current low high type adjustment sdjustment	Raw 7	12 26.0 RWR/Pfs/NsOC//TW Treated 7 7 7	R
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routing free C12 Lotal C12 Lot	m3 m3 on, hr. per month rategy current low high type adjustment current low high type adjustment current	Raw 7	12 26.0 RWR/Pfs/NsOC//TW Treated 7 7 7	R
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routing free C12 Lotal C12 Lot	m3 m3 non, hr. per month retogy current low high type adjustment current low high type adjustment current low	Raw 7	12 26.0 RWR/Pfs/NsOC//TW Treated 7 7 7	R
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routing free C12 Lotal C12 Lot	m3 m3 oon, hr. per month retegy current low high type adjustment current low high type adjustment current low high type low high	Raw 7	12 26.0 RWR/Pfs/NsOC//TW Treated 7 7 7	R
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 tambridity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St Coegulants Polymer Soda Ash	m3 m3 on, hr. per month rategy current low high type adjustment current low high type adjustment low high type adjustment	Raw 7	12 26.0 RWR/Pftr/NeOCUTW 7 7 7 7 - - - - - - - - - - - - -	R
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 tambridity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St Coegulants Polymer Soda Ash	m3 m3 non, hr. per month retexy current low high type adjustment current low high type adjustment current low high type adjustment current low	Raw 7	12 26.0 RWR/Pfs/NsOC//TW Treated 7 7 7	R
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 tambridity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St Coegulants Polymer Soda Ash	m3 m3 oon, hr. per month retegy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	Raw 7	12 26.0 RWR/Pftr/NeOCUTW 7 7 7 7 - - - - - - - - - - - - -	R
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 tambridity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St Coegulants Polymer Soda Ash	m3 m3 on, hr. per month rategy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type	Raw 7	12 26.0 Trested 7 7 7 7 7 7 7 - 7 7 - - - - - - - - - - - - -	R
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 tambridity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St Coegulants Polymer Soda Ash	m3 m3 m3 non, hr. per month retegy current low high type adjustment current low high type adjustment current low high type adjustment current low high type type type type type type type type	Raw 7	12 26.0 Tread Tread 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekby Sempling Routine free C12 Justi C12 Jus	m3 m3 m3 con, hr. per month ratesy current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustme	Raw 7	12 26.0 Tread Tread 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekby Sempling Routine free C12 Justi C12 Jus	m3 m3 m3 non, hr. per month retegy current low high type adjustment current low high type adjustment current low high type adjustment current low high type type type type type type type type	Raw 7	12 26.0 Tread Tread 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekby Sempling Routine free C12 Justi C12 Jus	m3 m3 m3 con, hr. per month rategy current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment current low high type sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustment sdjustme	Raw 7	12 26.0 Tread Tread 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekby Sempling Routine free C12 Justi C12 Jus	m3 m3 m3 on, hr. per month <u>retesy</u> current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	Raw 7	12 26.0 Tread Tread 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 tamperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St Congulants	m3 m3 oon, hr. per month rategy current low high type sdjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high high type adjustment current low high type adjustment current low high type type type type type type type type	Raw 7	12 26.0 Tread Tread 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekby Sempling Routine free C12 Justi C12 Jus	m3 m3 m3 oon, hr. per month retexy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type sciustment type type adjustment type type adjustment type type adjustment type type adjustment type type type type type type type typ	Raw 7	12 26.0 Tread Tread 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routing free C12 Lotal C12 tartifity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St Cospulsants Polymer Soda Ash Disinfection	m3 m3 m3 on, hr. per month recey current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type type adjustment current low high type type type type type type type type	Raw 7	12 26.0 Tread Tread 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routing free C12 Lotal C12 tartifity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St Cospulsants Polymer Soda Ash Disinfection	m3 m3 m3 oon, hr. per month retexy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type sciustment type type adjustment type type adjustment type type adjustment type type adjustment type type type type type type type typ	Raw 7	12 26.0 Tread Tread 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekby Sempling Routine free C12 Justi C12 Jus	m3 m3 m3 on, hr.	Raw 7	12 26.0 Tread Tread 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routing free C12 Lotal C12 tartifity temperature pH Floride Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St Cospulsants Polymer Soda Ash Disinfection	m3 m3 on, hr. per month retegy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type current low high type current low high type current low high type current low high type current current low high type current current low high type current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current curent current current current current c	Raw 7	12 26.0 Tread Tread 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	R

		TEEPEE CREEK
		16-Jun-94
Type of Sample	444.0	Distributed
Temperature pH	deg C	7.8
Conductivity	Miro ohma/c	2300
Turbidity	NTU	0.71
Total Chlorine	mg/L	NA
Free Chlorine	mg/L	NA
Color	TCU	10
Ammonia	mg/L	-
Odour Type		chemical / heavy
Odour Intensity	out of 3	1
Flavour Profile Flavour Comment	out of 10	2.5 month feel
Flavour Continent		momu icei
THMs	ug/L	-
	-9-	
Total Coliforms	cfu/100ml	<1
Fecal Coliforms	cfu/100ml	<1
Heterotropic Plate Count (48 hr)	cfu/i mL	1
Heterotropic Plate Count (7 days)		-
Klebziella	cfu/100m]	<1
Fecal Streptococcus	cfu/100ml	<1
Molds	cfu/1 mL	<1
Yeast	cfu/i mL	6
Iron Reducing Bacteria Sulfate Reducing Bacteria	org/1 ml.	<0.3
Sulfite Reducing Bacteria	org/1 mL org/1 mL	0.4
Thiogulfate Reducing Bacteria	org/1 mL	4
Iron Oxidizing Bacteria	org/1 mL	0.4
The strategy	wy i ne	1
Plant Operations		
Person hours to operate plant per w	veek	1
T & O problems		
T TO Providing		yes when water gets clo
Hardness	high	-
	low	-
		-
Recycel Filter Backwash		no
Distribution system flushing progra		ino
Distributor system functing progra	***	
Storage	m3 m3	?
Storage Average Daily Production Ave. Theoretical Hydraulic Detention	m3 m3	?
Storage Average Daily Production Ave. Theoretical Hydraulic Detention	m3 m3	? ? ?
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment	m3 m3	? ? ? Pfli
Storage Average Daily Production Ave. Theoretical Hydramic Detention Treatment Weekly Sampling Routine	m3 m3	? ? ?
Storage Average Daily Production Ave. Theoretical Hydrantic Detention Treatment Weethy Sampling Routine free Cl2	m3 m3	? ? ? Pfli
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routine free C12 total C12	m3 m3	? ? ? Pfli
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routing free C12 total C12 turbidity	m3 m3	? ? ? Pfli
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routine free C12 total C12	m3 m3	? ? ? Pfli
Storage Average Daily Production Ave. Theoretical Hydramic Detention Treatment Weekly <u>Sampling Routine</u> free C12 total C12 total C12 turbidity temperature	m3 m3	? ? ? Pfli
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH	m3 m3	? ? ? Pfli
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weethy Sampling Routing free C12 total C12 total C12 totald C13 totald C13	m3 m3	? ? ? Pfli
Storage Average Daily Production Ave. Theoretical Hydranlic Detention Treatment Weekly Sampling Routine free C12 torbidity temperature pH Floride Color Hardness Mn	m3 m3	? ? ? Pfli
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routing free C12 total C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe	m3 m3	? ? ? Pfli
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routing free C12 total C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe	m3 m3	? ? ? Pfli
Storage Average Daily Production Ave. Theoretical Hydranlic Detention Treatment Weekly Sampling Routine free C12 torbidity temperature pH Floride Color Hardness Mn Fe Alkahinity	m3 m3 on, br.	? ? ? Pfli
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkakmiry Microbial	m3 m3 on, br.	? ? ? Pfli
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkakmity Microbial Chemical Dosing and Operating St	m3 m3 on, br.	? ? ? Pfli
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkakmiry Microbial	m3 m3 on, br.	? ? ? Pfli
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkakmity Microbial Chemical Dosing and Operating St	m3 m3 on, br. <u>per month</u> <u>merer</u> current	? ? ? Pfli
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkakmity Microbial Chemical Dosing and Operating St	m3 m3 on, br.	? ? ? Pfli
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routing free C12 total C12 turbidity temperature phi Floride Color Hardness Mn Fe Alkalinity Microbial Chemical Dosing and Operating Sto Coegulants	m3 m3 on, br. <u>per month</u> <u>stery</u> current low bigh type adjustment	? ? ? Pfli
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routing free C12 total C12 turbidity temperature phi Floride Color Hardness Mn Fe Alkalinity Microbial Chemical Dosing and Operating Sto Coegulants	m3 m3 on, br.	? ? ? Pfli
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routing free C12 total C12 turbidity temperature phi Floride Color Hardness Mn Fe Alkalinity Microbial Chemical Dosing and Operating Sto Coegulants	m3 m3 on, br. <u>per monuh</u> <u>stery</u> current low high type adjustment current low	? ? ? Pfli
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkakmity Microbial Chemical Dosing and Operating St	m3 m3 on, br. <u>per month</u> <u>stery</u> current low high type adjustment currest low	? ? ? Pfli
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routing free C12 total C12 turbidity temperature phi Floride Color Hardness Mn Fe Alkalinity Microbial Chemical Dosing and Operating Sto Coegulants	m3 m3 on, br.	? ? ? Pfli
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routing free C12 total C12 total C12 total C12 total C12 total C12 total C12 Color Hardness Mn Fe Alkaknisy Microbial Chemical Dosing and Operating St Coegulants	m3 m3 on, br.	? ? ? Pfli
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routing free C12 total C12 total C12 total C12 total C12 total C12 total C12 Color Hardness Mn Fe Alkaknisy Microbial Chemical Dosing and Operating St Coegulants	m3 m3 on, br.	? ? ? Pfli
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routing free C12 total C12 total C12 total C12 total C12 total C12 total C12 Color Hardness Mn Fe Alkaknisy Microbial Chemical Dosing and Operating St Coegulants	m3 m3 on, br.	? ? ? Pfli
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routing free C12 total C12 total C12 total C12 total C12 total C12 total C12 Color Hardness Mn Fe Alkaknisy Microbial Chemical Dosing and Operating St Coegulants	m3 m3 on, br.	? ? ? Pfli
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatments Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkalinity Microbial Chemical Dosing and Onerating St Coegulants Polymer Soda Ash	m3 m3 on, br.	? ? ? Pfli
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatments Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkalinity Microbial Chemical Dosing and Onerating St Coegulants Polymer Soda Ash	m3 m3 on, br.	? ? ? Pfli
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatments Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkalinity Microbial Chemical Dosing and Onerating St Coegulants Polymer Soda Ash	m3 m3 on, br.	? ? ? Pfli
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatments Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe Alkalinity Microbial Chemical Dosing and Onerating St Coegulants Polymer Soda Ash	m3 m3 on, br.	? ? ? Pfli
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routing free C12 total C12 turbidity turperature phi Floride Color Hardness Mn Fe Alkalinity Microbial Chemical Doging and Operating St Coegulants Polymer Soda Ash Disinfection	m3 m3 on, br.	? ? ? Pfli
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routing free C12 total C12 turbidity turperature phi Floride Color Hardness Mn Fe Alkalinity Microbial Chemical Doging and Operating St Coegulants Polymer Soda Ash Disinfection	m3 m3 on, br.	? ? ? Pfli
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routing free C12 total C12 turbidity turperature phi Floride Color Hardness Mn Fe Alkalinity Microbial Chemical Doging and Operating St Coegulants Polymer Soda Ash Disinfection	m3 m3 m3 on, br.	? ? ? Pfli
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routing free C12 total C12 turbidity turperature phi Floride Color Hardness Mn Fe Alkalinity Microbial Chemical Doging and Operating St Coegulants Polymer Soda Ash Disinfection	m3 m3 on, br.	? ? ? Pfli
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routing free C12 total C12 turbidity turperature phi Floride Color Hardness Mn Fe Alkalinity Microbial Chemical Doging and Operating St Coegulants Polymer Soda Ash Disinfection	m3 m3 m, br.	? ? ? Pfli
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routing free C12 total C12 total C12 total C12 total C12 total C12 Color Hardness Mn Fe Alkaknizy Microbial Chemical Dosing and Operating St Coegulants Polymer Soda Ash Disinfection	m3 m3 on, br.	? ? ? Pfli
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routing free C12 total C12 turbidity turperature phi Floride Color Hardness Mn Fe Alkalinity Microbial Chemical Doging and Operating St Coegulants Polymer Soda Ash Disinfection	m3 m3 on, br.	? ? ? Pfli
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routing free C12 total C12 total C12 total C12 total C12 total C12 Color Hardness Mn Fe Alkaknizy Microbial Chemical Dosing and Operating St Coegulants Polymer Soda Ash Disinfection	m3 m3 m3 m, br.	? ? ? Pfli
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekly Sampling Routing free C12 total C12 total C12 total C12 total C12 total C12 Color Hardness Mn Fe Alkaknizy Microbial Chemical Dosing and Operating St Coegulants Polymer Soda Ash Disinfection	m3 m3 on, br.	? ? ? Pfli

1.

ι.

1

			WANDERING RIVE	R
Type of Sample		Raw	9-Ang-94 Treated	Distributed
Temperature	deg C	21.4	22.4	18.1
pH		8.6		7.9
Conductivity	Miro ohms/c	275	450	450
Turbidity	NTU	8.3	0.28	0.39
Total Chlorine	mg/L	NA	0.48	0.63
Free Chlorine		NA		
	mg/L		0.34	0.34
Color	тси	20	0	0
Ammonia	mg/L	0.002	1-	0
Odour Type		grassy	graary	grassy
Odour Intensity	out of 3	2	0.1	1.5
Flavour Profile	out of 10	NA	6.5	-
Flavour Comment				1
THIMS	ug/L	-	141	128
Total Coliforms	cfu/100ml	trate	<1	<1
Fecal Coliforms	cfu/100m3	2	<1	<1
Heterotropic Plate Count (48 hr)	cfu'l mL	61	<1	390
Heterotropic Plate Count (7 days)	cfu/l mL	172	2	293
Klebriella	cfu/100ml	504	<1	<1
Fecal Streptococcus	cfu/100ml	8	<1	1
Molds	cfu/l mL	2	<1	<1
Yeast	cfu/1 mL	-	1	tntc
Iron Reducing Bacteria	org/1 mL	46	<0.3	<0.3
Sulfate Reducing Bacteria	org/1 mL	2	<0.3	<0.3
Sulfite Reducing Bacteria	ora/1 mL	2	>0.3	<0.3
Thiorulfate Reducing Bacteria	ուջ/1 ու	>110	<0.3	>110
		110		
Iron Oxidizing Bacteria	org/1 mL		<0.3	0.4
Plant Operations		<u> </u>	L	J
Person hours to operate plant per	week		17	
T & O problems			-	
Tato prosidita		dy		
Hardness	high		-	
	low			
	104			
Recycel Filter Backwash			BO	
NON-YOU FIND DECK WEDI				
Distribution system flushing progr	am		yes	
Stomes	-1	1	573	
Storage	m3 m3	1		
Average Daily Production		1	57	
Ave. Theoretical Hydraulic Detenti	on, hr.		241.3	
Treatment			C/CgA/Fic/Sd/pH/Rfl	ZNSOCI/TWR
Weekly Sampling Routine		Raw	Trested	
free Cl2			7	
total Cl2			7	
total Cl2 turbidity			7 7	
total Cl2 tarbidity temperature			7	
total Cl2 turbidity temperature pH				
total Cl2 tarbidity temperature pH Flotide			7	
total Cl2 turbidity temperature pH Flotide Color			7	
total Cl2 turbidiy temperstare pH Flotide Color Hardness			7	
total Cl2 tarbidiy temperstare pH Floride Color Hardness Mn			7 - 7 - 3	
total Cl2 turbidiy temperstare pH Flotide Color Hardness			7 - 7 - -	
total Cl2 tarbidiy temperstare pH Floride Color Hardness Mn			7 - 7 - 3	
total Cl2 tarbidity tempersture pH Floride Color Hardness Mn Fe			7 - 7 - 3	
total CI2 turbidity temperature pH Flotide Color Hardness Mn Fe Allrahinity Microbial	per month		7 - 7 - 3	
total Cl2 tarbidiy temperstore pH Flotide Color Hardness Mm Fe Allralinity			7 - - - 3 3 - 4	
total CI2 turbidity temperature pH Flotide Color Hardness Mn Fe Allrahinity Microbial	current		7 - - - 3 3 - - 4	
total CI2 turbidity temperature pH Flotide Color Hardness Mn Fe Alkalinity Microbial Chemical Doring and Operature St	rategy current low		7 - - - - - - - - - - - - - - - - - - -	
total CI2 turbidity temperature pH Flotide Color Hardness Mn Fe Alkalinity Microbial Chemical Doring and Operature St	current		7 - - - 3 3 - - 4	
total CI2 turbidity temperature pH Flotide Color Hardness Mn Fe Alkalinity Microbial Chemical Doring and Operature St	rategy current low high		7 - - - - - - - - - - - - - - - - - - -	
total CI2 turbidity temperature pH Flotide Color Hardness Mn Fe Alkalinity Microbial Chemical Doring and Operature St	rategy current low		7 - - - 3 3 - 4 - - 4 - - 274	
total CI2 tarbidity temperature pH Flotide Color Hardness Mn Fe Alkalinity <u>Microbial</u> <u>Chemical Doting and Operature St</u> Cognilants	ratesy current low high type adjustment		7 - - - 3 3 - - 4 - - - - - - - - - - - -	
total CI2 tarbidity temperature pH Flotide Color Hardness Mn Fe Alkalinity <u>Microbial</u> <u>Chemical Doting and Operature St</u> Cognilants	rategy current low high type adjustment current		7 - - - 3 3 - - 4 - - - - - - - - - - - -	
total Cl2 turbidity temperature pH Floride Color Hardness Mn Fe Alkalinity Microbial Chemical Doring and Operature St	rategy current low high type adjustment current low		7 - - - 3 3 - - 4 4 180 105 274 alum based on turbidity 0.4	
total CI2 tarbidity tempersture pH Flotide Color Hardness Mn Fe Alkalinity <u>Microbial</u> <u>Chemical Doting and Operatine St</u> Cognilants	rategy current low high type adjustment current low high		7 - - - 3 3 - - 4 - - - - - - - - - - - -	
total CI2 tarbidity tempersture pH Flotide Color Hardness Mn Fe Alkalinity <u>Microbial</u> <u>Chemical Doting and Operatine St</u> Cognilants	ratesy current low high type adjustment current low high type		7 - - - 3 3 - - 4 - - - - - - - - - - - -	
total Cl2 tarbidity temperature pH Flotide Color Hardness Mn Fe Alkshniky <u>Microbial</u> <u>Chemical Doting and Overature St</u> Cognitants	ratesy current low high type sdjustment current low high type adjustment		7 - - - 3 3 - - 4 4 180 105 2774 alum based on turbidity 0.4 0.4 0.4 0.4 ? constant	
total CI2 tarbidity tempersture pH Flotide Color Hardness Mn Fe Alkalinity <u>Microbial</u> <u>Chemical Doting and Operatine St</u> Cognilants	ruteev current low high type adjustment low high type adjustment current		7 - - - 3 3 - 4 180 105 274 alum based on turbidity 0.4 0.4 0.4 7 constant 110	
total Cl2 tarbidity temperature pH Flotide Color Hardness Mn Fe Alkshniky <u>Microbial</u> <u>Chemical Doting and Overature St</u> Cognitants	reteev current kow high type adjustment current low high type adjustment current low		7 - - - 3 3 - - 4 - - - - - - - - - - - -	
total Cl2 tarbidity temperature pH Flotide Color Hardness Mn Fe Alkshniky <u>Microbial</u> <u>Chemical Doting and Overature St</u> Cognitants	ruteev current kow high type adjustment current low high type adjustment current low		7 - - - 3 3 - 4 4 180 105 274 atum besed on turbidity 0.4 0.4 0.4 9 constant 110 40 150	
total CI2 tarbidity temperature pH Flotide Color Hardness Mn Fe Allratinity <u>Microbial</u> <u>Chemical Doting and Operature St</u> Cogniants Polymer Soda Ash	ratesy current low high type sdjustment current low high sdjustment low high sdjustment		7 - - - 3 3 - 4 180 105 274 alum besed on turbidity 0.4 0.4 ? constant 110 40 150 besed on pH	
total Cl2 tarbidity tempersture pH Flotide Color Hardness Min Fe Allestinity Microbial <u>Chemical Dosing and Overstone St</u> Cognitants	retesy current low high type adjustment current low high type current low high adjustment current current		7 - - - 3 3 - - 4 - - 4 - - - - - - - - -	
total CI2 tarbidity temperature pH Flotide Color Hardness Mn Fe Allratinity <u>Microbial</u> <u>Chemical Doting and Operature St</u> Cogniants Polymer Soda Ash	retreev current low high type adjustment current low high adjustment current low high adjustment current low		7 - - - 3 3 - 4 4 180 105 274 alum besed on turbidity 0.4 0.4 0.4 0.4 7 constant 110 50 based on pH 7 2.3	
total CI2 tarbidity temperature pH Flotide Color Hardness Mn Fe Allratinity <u>Microbial</u> <u>Chemical Doting and Operature St</u> Cogniants Polymer Soda Ash	retresv current low high type adjustment current low high type adjustment current low high adjustment current low high high		7 - - - 3 3 - 4 180 105 274 alum besed on turbidity 0.4 0.4 0.4 ? constant 110 40 150 besed on pH 7 2.3 17	
total CI2 tarbidity temperature pH Flotide Color Hardness Mn Fe Allratinity <u>Microbial</u> <u>Chemical Doting and Operature St</u> Cogniants Polymer Soda Ash	retery current low high type adjustment low high type adjustment current low high adjustment current low high type type type		7 - - - - 3 3 - - 4 - - 4 - - - 4 - - - -	
total Cl2 tarbidity temperature pH Flotide Color Hardness Mn Fe Allrahnity <u>Microbial</u> <u>Chemical Doning and Operature St</u> Cogniants Polymer Soda Ash Disinfection	retresv current low high type adjustment current low high type adjustment current low high adjustment current low high type adjustment		7 - 7 - - 3 3 - 4 180 105 274 alum bassed on tarbidity 0.4 0.4 0.4 0.4 0.4 0.4 0.4 110 bassed on pH 7 2.3 17 NaOC1 bassed all residual, the formation of the formation	nere is error in these
total Cl2 tarbidity temperature pH Flotide Color Hardness Mn Fe Allrahnity <u>Microbial</u> <u>Chemical Doning and Operature St</u> Cogniants Polymer Soda Ash Disinfection	retery current low high type adjustment current low high seljustment current low high adjustment current low high adjustment current current		7 - - - - 3 3 - - 4 - - 4 - - 4 - - 4 - - 4 - - - -	1ere is error in these
total Cl2 tarbidity temperature pH Flotide Color Hardness Mn Fe Allrahnity <u>Microbial</u> <u>Chemical Doning and Operature St</u> Cogniants Polymer Soda Ash Disinfection	retery current low high type adjustment current low high type adjustment current low high adjustment current low high type adjustment current low high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high high tops high tops high tops high tops high tops high high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high tops high high tops high high high high high high high hig		7 - - - - - - - - - - - - - - - - - - -	1ere is error in these
total Cl2 tarbidity temperature pH Flotide Color Hardness Mn Fe Allrahnity <u>Microbial</u> <u>Chemical Doning and Operature St</u> Cogniants Polymer Soda Ash Disinfection	retery current low high type sdjustment current low high djustment current low high adjustment current low high type adjustment current low high type high high high type high high high high high high high hig		7 	nere is error in these
total Cl2 tarbidity temperature pH Flotide Color Hardness Mn Fe Allrahnity <u>Microbial</u> <u>Chemical Doning and Operature St</u> Cogniants Polymer Soda Ash Disinfection	retery current low high type adjustment current low high type adjustment current low high adjustment current low high type adjustment current low high type adjustment current low high type type type type		7 - - - - 3 3 - - 4 - - 4 - - 4 - - - - -	
total Cl2 tarbidity temperature pH Flotide Color Hardness Min Fe Alkalinity <u>Microbial</u> <u>Chemical Dosing and Overature St</u> Cosgulants Polymer Soda Ash Disinfection	retresv current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current adjustment current low high type adjustment current adjustment current		7 	
total CI2 tarbidity temperature pH Flotide Color Hardness Mn Fe Allratinity <u>Microbial</u> <u>Chemical Doting and Operature St</u> Cogniants Polymer Soda Ash	retery current low high type sdjustment current low high type adjustment current low high type adjustment current low high type type current low high type current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current		7 - - - - 3 3 - - 4 - - 4 - - 4 - - - - -	
total Cl2 tarbidity temperature pH Flotide Color Hardness Min Fe Alkalinity <u>Microbial</u> <u>Chemical Dosing and Overature St</u> Cosgulants Polymer Soda Ash Disinfection	retery current low high type adjustment current low high type adjustment current low high adjustment current low high type adjustment type adjustment type adjustment low high bigh type adjustment low high bigh type adjustment low high bigh type adjustment low high bigh type adjustment low high bigh type adjustment low high bigh type adjustment low high bigh type adjustment low high bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type type type type type type type type		7 - - - - 3 3 - - 4 - - 4 - - 4 - - - - -	
total Cl2 tarbidity temperature pH Flotide Color Hardness Min Fe Alkalinity <u>Microbial</u> <u>Chemical Dosing and Overature St</u> Cosgulants Polymer Soda Ash Disinfection	retresv current low high type sdjustment current low high djustment current low high djustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type		7 - - - - 3 3 - - 4 - - 4 - - 4 - - - - -	
total Cl2 tarbidity temperature pH Flotide Color Hardness Min Fe Alkalinity <u>Microbial</u> <u>Chemical Dosing and Overature St</u> Cosgulants Polymer Soda Ash Disinfection	retery current low high type adjustment current low high type adjustment current low high adjustment current low high type adjustment type adjustment type adjustment low high bigh type adjustment low high bigh type adjustment low high bigh type adjustment low high bigh type adjustment low high bigh type adjustment low high bigh type adjustment low high bigh type adjustment low high bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type bigh type type type type type type type type		7 - - - - 3 3 - - 4 - - 4 - - 4 - - - - -	

			WESTLOCK 23-Jun-94	
Type of Sample		Raw	Z3-Jun-94 Treated	Distributed
Temperature	deg C	17.2	16.3	14
pH	aug 0	8.4	7.8	7.9
Conductivity	Miro ohma/c	340	380	390
Tarbidity	NTU	0.46		
			0.22	0.29
Total Chlorine Free Chlorine	mg/L	NA	1.21	0.55
	mg/L	NA	0.97	0.33
Color	TCU	20	7	10
Ammonia	mg/L	0.04	-	-
Odour Type		-	chlorine	chlorine
Odour Intensity	out of 3	-	1	0.5
Flavour Profile	out of 10	NA	4.5	4.5
Flavour Comment				
THMs	ug/L		101	169
Total Coliforms	cfa/100ml	<1	<1	<1
Fecal Coliforms	cfu/100ml	<1	<1	<1
Heterotropic Plate Count (48 hr)	cfu/1 mL	26	0	13
Heterotropic Plate Count (7 days)		346	4	3
Klebsiella	cfu/100ml	<1	<1	<1
	cfu/100ml			
Fecal Streptococcus		1	1	<1
Molds	cfu/l mL	3	<l< td=""><td>&lt;1</td></l<>	<1
Yeast	cfu/l mL	227	<1	<1
Iron Reducing Bacteria	org/i mL	>110	<0.3	<0.3
Sulfate Reducing Bacteria	org/1 mL	<0.3	<0.3	<0.3
Sulfite Reducing Bacteria	org/1 mL	0.9	<0.3	<0.3
Thiosulfate Reducing Bacteria	org/1 mL	8	<0.3	<0.3
Iron Oxidizing Bacteria	org/1 mL	0.4	<0.3	<0.3
Plant Operations				
Person hours to operate plant per v	veek		80	
T & O problems			yes	
			related to algae	
Hardness	high		400	
	low		180	
	104		winter is high	
D 1 Cib D				
Recycel Filter Backwash			yes	
		1	0.8	
Name and a second second second				
Distribution system flushing progra	m		7	
Distribution system flushing progra			•	
Storage	<b>m</b> 3		909	
Storage Average Daily Production	m3 m3		909 1924	
Storage Average Daily Production	m3 m3		909	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti	m3 m3		909 1924 11.3	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment.	m3 m3		909 1924 11.3 A/AC/ClayR01/pH/Cl2	/F10/TWR
	m3 m3	RWR/Cg. Raw	909 1924 11.3	/FlorTWR
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment	m3 m3		909 1924 11.3 A/AC/ClayR01/pH/Cl2	/F]w/TWR
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free Cl2	m3 m3		909 1924 11.3 A/AC/ClayR01/pH/Cl2	/F]u/TWR
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weakly Sampling Routine free Cl2 Iotal Cl2	m3 m3		909 1924 11.3 A/AC/Clr/Rftr/pH/Cl2 Treated 7	/FJu/TWR
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment <u>Weekly Sampling Routine</u> free Cl2 total Cl2 total Cl2 turbidky	m3 m3		909 1924 11.3 A/AC/Cla/R01/pH/Cl2 Treated 7 - 7	/F10/TWR
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly <u>Sampling Routine</u> free Cl2 Iotal Cl2 Iutribidky temperature	m3 m3		909 1924 11.3 <b>XAC/Clu/Rflu/pH/Cl2</b> <b>Treated</b> 7 - 7 7	/F1wTWR
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weakly Sampling Routine free Cl2 total Cl2 turbidky temperature pH	m3 m3		909 1924 11.3 <u>A/AC/ClarRfth/pH/Cl2</u> Treated 7 7 7 7	/Flu/TWR
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment <u>Weekly Sampling Routine</u> free C12 total C12 unbidty temperature pH Floride	m3 m3		909 1924 11.3 <b>XAC/Clu/Rflu/pH/Cl2</b> <b>Treated</b> 7 - 7 7	/FJu/TWR
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weakly Sampling Routine free Cl2 total Cl2 turbidky temperature pH	m3 m3		909 1924 11.3 <u>A/AC/ClarRfth/pH/Cl2</u> Treated 7 7 7 7	/F]መ/TWR
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weathy Sampling Routine free C12 total C12 total C12 turbidity Lemperature pH Floride Color	m3 m3		909 1924 11.3 <u>A/AC/ClarRfth/pH/Cl2</u> Treated 7 7 7 7	/FJu/TWR
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weakly Sampling Routine free Cl2 Joula Cl2 turbidity Lemperature pH Floride Color Hardness	m3 m3		909 1924 11.3 <b>XAC/Clu/Rflu/pH/Cl2</b> <b>Treated</b> 7 - 7 7 7 7 7	/Fነው/TWR
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weekly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Ma	m3 m3		909 1924 11.3 <b>XAC/Clu/Rflu/pH/Cl2</b> <b>Treated</b> 7 - 7 7 7 7 7	/F]ህ/TWR
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekby Sampling Routine free C12 total C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe	m3 m3		909 1924 11.3 <b>XAC/Clu/Rflu/pH/Cl2</b> <b>Treated</b> 7 - 7 7 7 7 7	/Fነዉ/TWR
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weekby Sampling Routine free C12 total C12 total C12 turbidity temperature pH Floride Color Hardness Mn Fe	m3 m3		909 1924 11.3 <b>XAC/Clu/Rflu/pH/Cl2</b> <b>Treated</b> 7 - 7 7 7 7 7	/F]wTWR
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weakly Sampling Routine free C12 total C12 mrbidity temperature pH Floride Color Hardness Mn. Fe Alkalimity	m3 m3 oa, hr.		909 1924 11.3 <b>XAC/Clu/Rflu/pH/Cl2</b> <b>Treated</b> 7 - 7 7 7 7 7	/F]u/TWR
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weakly Sampling Routine free C12 total C12 turbidky temperature pH Floride Color Hardness Ma Fe Alkalimity Microbial	m3 m3 ca, hr.		909 1924 11.3 <b>XAC/Clu/Rflu/pH/Cl2</b> <b>Treated</b> 7 - 7 7 7 7 7	/Fነው/TWR
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weakly Sampling Routine free C12 Joula C12 turbidity Lemperature pH Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Dosing and Operating St	m3 m3 ca, hr.		909 1924 11.3 XAC/ClarRfls/pH/Cl2 Treated 7 - 7 7 7 7 7 - 8 8 - 4	/F1wTWR
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weakly Sampling Routine free C12 Joula C12 turbidity Lemperature pH Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Dosing and Operating St	m3 m3 ce, hr.		909 1924 11.3 X/AC/Clu/Rfll/pH/Cl2 Treated 7 7 7 7 7 7 7 7 7 7 7 7 - 8 8 - - 4 - - - - - - - - - - - - -	/F]u/TWR
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weakly Sampling Routine free C12 Joula C12 turbidity Lemperature pH Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Dosing and Operating St	m3 m3 ca, hr. per month mery curreni low		909 1924 11.3 AVAC/ClarRfbt/pH/Cl2 Treated 7 7 7 7 7 8 80 8 4 30 22	/F]wTWR
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weakly Sampling Routine free C12 Joula C12 turbidity Lemperature pH Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Dosing and Operating St	m3 m3 ce, hr.		909 1924 11.3 X/AC/Clu/Rfll/pH/Cl2 Treated 7 7 7 7 7 7 7 7 7 7 7 7 - 8 8 - - 4 - - - - - - - - - - - - -	/F]u/TWR
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weakly Sampling Routine free C12 Joula C12 turbidity Lemperature pH Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Dosing and Operating St	m3 m3 ca, hr. per month mery curreni low		909 1924 11.3 AVAC/ClarRfbt/pH/Cl2 Treated 7 7 7 7 7 8 80 8 4 30 22	/Fነዉ/TWR
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weakly Sampling Routine free C12 total C12 turbidky temperature pH Floride Color Hardness	m3 m3 on, hr. <u>per month</u> <u>mitry</u> current low high type		909 1924 11.3 A/AC/Clu/R/fls/pH/Cl2 Treated 7 7 7 7 7 7 7 7 7 7 - Bome - - 4 30 22 35 Aluminx 3	
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment WeekNy Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Ma. Fe Alkalimity Microbial Chemical Dosing and Operating St Congrulants	m3 m3 ca, hr.		909 1924 11.3 <u>A/AC/ClarRfut/pH/Cl2</u> Treated 7 - 7 7 7 7 - Bome - - 4 30 22 35 Aluminx 3 based on turbidity at	
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weakly Sampling Routine free C12 total C12 turbidky temperature pH Floride Color Hardness Ma. Fe Alkalinity Microbial Chernical Dosing and Operating St	m3 m3 ca, hr.		909 1924 11.3 XAC/Cla/R.fls/pH/Cl2 Treated 7 - 7 7 7 7 7 - 8 8 9 4 30 22 35 Aluminx 3 based on turbidity at 0.9	
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment WeekNy Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Ma. Fe Alkalimity Microbial Chemical Dosing and Operating St Congrulants	m3 m3 ca, hr. per month micey current low high type sdjustnent current low		909 1924 11.3 AVAC/Clar/Rfut/pH/Cl2 Treated 7 - 7 7 7 7 7 7 8 8 8 8 9 8 9 8 9 4 30 22 35 Atuminx 3 based on turbidity at 0.5	
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment WeekNy Sampling Routine free C12 total C12 turbidky temperature pH Floride Color Hardness Ma. Fe Alkalimity Microbial Chemical Dosing and Operating St Congrulants	m3 m3 ca, hr. per month mergy current low high type adjustment current low high		909 1924 11.3 XAC/Clar/R.flu/pH/Cl2 Treated 7 - 7 7 7 7 - Bome - - 8 30 22 35 Aluminx 3 based on turbidity at 0.9 0.5 1	
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment WeekNy Sampling Routine free C12 total C12 turbidky temperature pH Floride Color Hardness Ma. Fe Alkalimity Microbial Chemical Dosing and Operating St Congrulants	m3 m3 ca, hr.		909 1924 11.3 XAC/ClarRflb/pH/Cl2 Treated 7 7 7 7 7 7 8 8 9 9 9 9 4 30 22 33 Aluminx 3 based on turbidity at 0.9 0.5 1 7	nd color
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment WeekN Sampling Routine free C12 total C12 turbidry temperature pH Floride Color Hardness Ma Fe Alkalinity Microbial Chemical Dosing and Operating St Coagalants	m3 m3 ca, hr. per month micey current low high type adjustment current low high type adjustment current		909 1924 11.3 XAC/Clar/R.flu/pH/Cl2 Treated 7 - 7 7 7 7 - Bome - - 8 30 22 35 Aluminx 3 based on turbidity at 0.9 0.5 1	nd color
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment WeekNy Sampling Routine free C12 total C12 turbidky temperature pH Floride Color Hardness Ma. Fe Alkalimity Microbial Chemical Dosing and Operating St Congrulants	m3 m3 ca, hr.		909 1924 11.3 XAC/ClarRflb/pH/Cl2 Treated 7 7 7 7 7 7 8 8 9 9 9 9 4 30 22 33 Aluminx 3 based on turbidity at 0.9 0.5 1 7	nd color
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment WeekN Sampling Routine free C12 total C12 turbidry temperature pH Floride Color Hardness Ma Fe Alkalinity Microbial Chemical Dosing and Operating St Coagalants	m3 m3 ca, hr. per month micey current low high type adjustment current low high type adjustment current		909 1924 11.3 XAC/ClarRflb/pH/Cl2 Treated 7 7 7 7 7 7 8 8 9 9 9 9 4 30 22 33 Aluminx 3 based on turbidity at 0.9 0.5 1 7	nd color
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment WeakN-Samping Routine free C12 total C12 turbidity emperature pH Floride Color Hardness Mn Fe Alkalinity Microbial Chemical Dosing and Operating St Coagulants	m3 m3 ca, hr. per month <u>retery</u> current low high type adjustment current low high type adjustment current low		909 1924 11.3 XAC/ClarRflb/pH/Cl2 Treated 7 7 7 7 7 7 8 8 9 9 9 9 4 30 22 33 Aluminx 3 based on turbidity at 0.9 0.5 1 7	nd color
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment WeekN Sampling Routine free C12 total C12 turbidry temperature pH Floride Color Hardness Ma Fe Alkalinity Microbial Chemical Dosing and Operating St Coagalants	m3 m3 ca, hr. per month merey current low high type adjustment current low high type adjustment current low high type low high type		909 1924 11.3 XAC/ClarRflb/pH/Cl2 Treated 7 7 7 7 7 7 8 8 9 9 9 9 4 30 22 33 Aluminx 3 based on turbidity at 0.9 0.5 1 7	nd color
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weakly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Dosing and Operating St Congulants	m3 m3 ca, hr.		909 1924 11.3 VAC/Clar/R.flar/pH/Cl2 Treated 7 - 7 7 7 7 7 7 7 7 - 80me - - - 80me - - - 80me - - - 80me - - - 80me - - - 80me - - - 80me - - - 80me - - - - 80me - - - - - 80me - - - - - - - - - - - - -	nd color
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weakly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Dosing and Operating St Congulants	m3 m3 ca, hr. per month meter current low high type adjustment current low high type adjustment current low high type adjustment current low high adjustment current low		909 1924 11.3 XAC/Clu/Rfll/pH/Cl2 Treated 7 - 7 7 7 7 7 7 7 7 7 7 7 7 7	nd color
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weakly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Dosing and Operating St Congulants	m3 m3 ca, hr. per month Tetezy current low high type adjustment current low high type adjustment current low high type current low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low		909 1924 11.3 AVAC/ClarRefut/pH/Cl2 Treated 7 - 7 7 7 7 7 8 80me - - 8 80me - - 8 80me - - 8 80me - - 8 80me - - 8 8 8 8 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9	nd color
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weakly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Dosing and Operating St Congulants	m3 m3 ca, hr. per month meter current low high type adjustment current low high type adjustment current low high type adjustment current low high adjustment current low	Raw	909 1924 11.3 XAC/Clar/R flar/pH/Cl2 Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	nd color
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weakly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Dosing and Operating St Congulants	m3 m3 ca, hr. per month Tetezy current low high type adjustment current low high type adjustment current low high type current low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low high type low	Raw	909 1924 11.3 AVAC/ClarRefut/pH/Cl2 Treated 7 - 7 7 7 7 7 8 80me - - 8 80me - - 8 80me - - 8 80me - - 8 80me - - 8 8 8 8 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9	nd color
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment WeekN Sampling Routine free C12 total C12 turbidry temperature pH Floride Color Hardness Ma Fe Alkalinity Microbial Chemical Dosing and Operating St Coagalants	m3 m3 ca, hr. per month merey current low high type adjustment current low high type adjustment current low high type adjustment current low high type subjustment current low high type subjustment current low high type subjustment current low high type subjustment current low high type subjustment current low high type subjustment current low high type subjustment current low high type subjustment current low high type subjustment current low high type subjustment current low high type subjustment current low high type subjustment current low high type subjustment current low high type subjustment current low high type subjustment current low high type subjustment current low high type subjustment current low high type subjustment current low high type subjustment current low high type type subjustment current low high type type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow type tow tow type tow type tow type tow tow tow type tow type tow type tow type tow type tow type tow type tow tow type tow type tow tow tow tow tow tow tow tow tow tow	Raw	909 1924 11.3 AVAC/Clar/Rflar/pH/Cl2 Treated 7 - 7 7 7 7 7 7 7 8 80me - - 8 80me - - 8 8 8 8 8 9 9 4 30 22 35 4 4 30 22 35 8 8 8 9 9 9 10 10 10 10 10 10 10 10 10 10	nd color
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weakly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Ma. Fe Alkalimity Microbial Chemical Dosing and Operating St Congrulants Polymer Soda Ash Disinfection	m3 m3 ca, hr. per month merey current low high type sdjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	Raw	909 1924 11.3 XAC/ClarRfut/pH/Cl2 Treated 7 - 7 7 7 7 7 7 8 8 8 9 9 4 30 22 35 Aluminx 3 based on turbidity at 0.9 0.5 1 7 2 4 22 35 Aluminx 3 based on blanket at - - - - - - - - - - - - -	nd color
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weakly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Ma. Fe Alkalimity Microbial Chemical Dosing and Operating St Congrulants Polymer Soda Ash Disinfection	m3 m3 m3 ca, hr.	Raw	909 1924 11.3 XAC/Clar/R.flar/pH/Cl2 Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	nd color
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weakly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Ma. Fe Alkalimity Microbial Chemical Dosing and Operating St Congrulants Polymer Soda Ash Disinfection	m3 m3 m3 ca, hr. per month merey current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low	Raw	909 1924 11.3 AVAC/Clar/Rflar/pH/Cl2 Treated 7 - 7 7 7 7 7 8 80me - - 8 80me - - 8 8 8 8 8 8 8 8 8 8 8 8 8	nd color
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weakly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Ma. Fe Alkalimity Microbial Chemical Dosing and Operating St Congrulants Polymer Soda Ash Disinfection	m3 m3 co, hr.	Raw umbers due to readi	909 1924 11.3 XAC/Clar/R.flu/pH/Cl2 Treated 7 - 7 7 7 7 7 - Borne - - - 8 30 22 35 Aluminx 3 based on turbidity at 0.9 0.5 1 7 depends on blanket - - - 3 2 2 3 2 2 3 5 2 (2 2 2 3 3 2 2 3 3 2 2 3 3 2 2 3 3 2 2 3 5 2 4 7 - - - - - - - - - - - - -	nd color
Storage Average Daily Production Ave. Theoretical Hydraulic Detenti Treatment Weakly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Ma Fe Alkalimity Microbial Chemical Dosing and Operating St Congulants	m3 m3 m3 ca, hr. per month merey current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low high basilistment current low	Raw umbers due to readi	909 1924 11.3 AVAC/Clar/Rflar/pH/Cl2 Treated 7 - 7 7 7 7 7 8 80me - - 8 80me - - 8 8 8 8 8 8 8 8 8 8 8 8 8	nd color
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weakly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Ma. Fe Alkalimity Microbial Chemical Dosing and Operating St Congrulants Polymer Soda Ash Disinfection	m3 m3 co, hr.	Raw umbers due to readi	909 1924 11.3 XAC/Clar/R.flu/pH/Cl2 Treated 7 - 7 7 7 7 7 - Borne - - - 8 30 22 35 Aluminx 3 based on turbidity at 0.9 0.5 1 7 depends on blanket - - - 3 2 2 3 2 2 3 5 2 (2 2 2 3 3 2 2 3 3 2 2 3 3 2 2 3 3 2 2 3 5 2 4 7 - - - - - - - - - - - - -	nd color
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weakly Sampling Routine free C12 Joial C12 Joint C12 Joi	m3 m3 ca, hr. per month mercy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	Raw umbers due to readi	909 1924 11.3 A/AC/Clar/Rfla/pH/Cl2 Freated 7 7 7 7 7 8 80me - 7 7 7 8 80me - 8 8 8 8 8 8 8 8 8 8 8 8 8	nd color
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weakly Sampling Routine free C12 Joial C12 Joint C12 Joi	m3 m3 ca, hr. per month mercy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high current low high type adjustment current low high current low high type current low high type current low high type current low high current current low high type adjustment current low high current low high type current low high type current low high current current low high current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current curent curent current current current curent current current curre	Raw umbers due to readi	909 1924 11.3 ×/AC/Clar/R.fls/pH/Cl2 Treated 7 - 7 7 7 7 7 7 8 8 8 9 9 4 30 22 35 Aluminx 3 based on turbidity at 0.9 0.5 1 7 2 2 3 2 2 2 3 5 2 2 2 3 5 2 2 2 3 5 2 2 2 3 5 2 2 2 3 5 2 2 2 3 5 2 2 2 3 5 2 2 2 3 5 2 2 2 3 5 2 2 2 3 5 2 2 2 3 5 2 2 3 5 2 2 3 5 2 2 3 5 2 2 3 5 2 2 3 5 2 2 3 5 5 1 7 - - - - - - - - - - - - -	nd color
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weakly Sampling Routine free C12 Joial C12 Joint C12 Joi	m3 m3 m3 ca, hr.	Raw umbers due to readi	909 1924 11.3 A/AC/Clar/Rfla/pH/Cl2 Freated 7 7 7 7 7 8 80me - 7 7 7 8 80me - 8 8 8 8 8 8 8 8 8 8 8 8 8	nd color
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment WeakNy Sampling Routine free C12 Lotal C12 Lot	m3 m3 ca, hr. per month merecy current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	Raw umbers due to readi	909 1924 11.3 A/AC/ClarRfut/pH/Cl2 Treated 7 7 7 7 7 8 80me - - 80me - - 80me - - 80me - - 80me - - 80me - - 80me - - 80me - - 80me - - 80me - - 80me - - 80me - - 80me - - - 80me - - - 80me - - - 80me - - - - - - - - - - - - -	nd color
Storage Average Daily Production Ave. Theoretical Hydraulic Detention Treatment Weakly Sampling Routine free C12 total C12 turbidity temperature pH Floride Color Hardness Ma. Fe Alkalimity Microbial Chemical Dosing and Operating St Congrulants Polymer Soda Ash Disinfection	m3 m3 m3 ca, hr.	Raw umbers due to readi	909 1924 11.3 ×/AC/Clar/R.fls/pH/Cl2 Treated 7 - 7 7 7 7 7 7 8 8 8 9 9 4 30 22 35 Aluminx 3 based on turbidity at 0.9 0.5 1 7 2 2 3 2 2 3 5 2 2 2 3 5 2 2 2 3 5 2 2 2 3 5 2 2 2 3 5 2 2 2 3 5 2 2 2 3 5 2 2 2 3 5 2 2 2 3 5 2 2 2 3 5 2 2 2 3 5 2 2 3 5 2 2 3 5 2 2 3 5 2 2 3 5 2 2 3 5 2 2 3 5 2 2 3 5 2 2 3 5 2 2 3 5 2 2 3 5 2 2 3 5 2 2 3 5 2 2 3 5 2 2 3 5 2 2 3 5 2 2 3 5 2 2 3 5 2 2 3 5 2 2 3 5 2 2 3 5 2 2 3 2 2 2 3 5 2 2 3 5 2 2 3 2 2 3 2 2 2 3 2 2 3 2 2 2 3 3 2 2 2 3 2 2 2 3 2 2 2 3 2 2 2 3 2 2 2 2 2 2 2 2 2 2 2 2 2	nd color

Type of Sample         Raw         Trented         Distributed           Programme         6.2         1.5.4         16.3         13           PH         8.1         7.3         7.3           Conductivy         Mare ohmate         240         330         300           Turbidary         NTU         17         0.23         0.31           Turbidary         NA         0.75         0.14         0.31           Conduct Limitary         out of 10         NA         0.35         1.5         1           Color Limitary         out of 10         NA         6.5         6.5         1           Pavour Dontine         upf.         -         133         142         1           Told Coliforms         cfU/10ml         1         1         1         1           Fead Schforms         cfU/10ml         1         1         1         1           Fead Schforms         cfU/10ml         10         1         1         1           Told Coliforms         cfU/10ml         10         1         1         1           Moles         cfu/10ml         10         1         1         1           Moles         cfu/10m				WHITECOURT 12-Jul-94	
Tomperature         deg C         15.4         16.3         13           Ord         8.1         7.5         7.3           Constantivey         Mice obanue?         240         330         300           Tobil Chactene         mg/L         NA         0.75         0.14           Free Chactene         mg/L         NA         0.75         0.14           Color         TCU         50.0         0         0         0           Construction         mg/L         NA         0.75         0.03         0           Color Types         out of 10         NA         6.5         0         0           Planour Profile         out of 10         NA         6.5         0         0           Planour Profile         out of 10         NA         6.5         0         0           Planour Profile         out of 10         NA         6.5         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0	Type of Sample		Raw		Distributed
pir         To         8.1         7.3         7.3           Conductiony         No         17         0.25         0.38           Turbidity         NA         0.75         0.14           Free Chorais         mgL         NA         0.75         0.14           Free Chorais         mgL         NA         0.75         0.14           Free Chorais         mgL         NA         0.55         0.30           Color         mgL         NA         0.55         0.31           Color Type         matty         elationic         matty         elationic           Proven Politic         out of 10         NA         6.5         6.5           Proven Politic         out of 10         NA         17         13           Proven Politic         mult         -         133         142           Facil Colorms         ch/10nil         10         1         11         126           Facil Colorms         ch/10nil         10         1         11         115           Facil Consert (9 hr)         ch/10nil         10         1         11         115           Facil Consert (9 hr)         rh/11         24         0.3		dee C			
Conductory         Mice channel         240         300         300           Table Chlorine         mg/L         NA         0.75         0.14           Free Chlorine         mg/L         NA         0.75         0.14           Free Chlorine         mg/L         NA         0.55         0.03           Calor         TCU         30         0         0         0           Annonia         mg/L         NA         0.55         0.38           Color Jamenty         out of 10         NA         6.5         6.5           Flower Comment         The Cont (440)         11         12         4.1         4.1           Feal Colliforms         cfu/10ml         2.1         1.1         138         1.1         138           Hearcotope Place Count (449)         cfu/1 al.         180         1.1         138         1.1         138           Klobalah         cfu/1 al.         127         3.5         3.3         40.3         3.3         1.0           Feal Steppicoccus         cfu/1 al.         127         3.5         3.3         40.3         1.0           Steps all and all all all all all all all all all al		m g c			
Turbian         NTU         17         0.25         0.38           Free Choraine         mgL         NA         0.75         0.14           Free Choraine         mgL         NA         0.75         0.14           Free Choraine         mgL         NA         0.75         0.14           Free Choraine         multy         10         0.02         -         -           Color Type         multy         10         0.3         1.5         1           Pervour Profile         out of 10         NA         6.5         6.5         -           Favour Trofile         out of 10         NA         -         133         142           Favour Trofile         out of 10         NA         -         1         -           Favour Trofile         mult         -         133         142         -           Favour Trofile         mult         -         -         -         -         -           Favour Trofile         mult         119         126         4         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -					
Teal Clockene         mgL         NA         0.75         0.14           Color         TCU         30         0         0         0           Color         TCU         30         0.22         -         -           Mannonia         mgL         0.02         -         -         -           Odour Intensity         out of 10         NA         6.5         6.5           Flavour Comment         mits         <11					
Free Choicing $ngL$ NA 0.55 0.03 Ammonia ngL 0.02					
Color Type True 20 50 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0					
Ammonia       mgL       0.02       -       -         Odour Type       out of 10       NA       1.5       1         Odour Latenarity       out of 10       NA       5       5         Favour Profile       out of 10       NA       5       5         Favour Comment       value       -       133       142         Tobal Colfforms       chu/10mal       tut.       <1					
Colour Jayse         mustry         chlorine         mustry pine           Odour Lafarsky         out of J         0.5         1.5         1           Flavour Comment         out of J         NA         6.5         6.5           Flavour Comment         ug/L         -         133         142           Tobal Cokforms         ch/100ml         vitu         <1				0	0
Colour Linkmarky         out of 10         NA         6.5         1.5         1           Prevour Profile         out of 10         NA         6.5         6.5           Flavour Profile         ug/L         -         133         142           The Comment         ch/10mal         tric         <1	Ammonia 1	mg/L	0.02	-	-
Favour Comment of 10 NA 6.5 6.5 Flavour Comment ${\rm Tribus}$ ${\rm ugl}$ - 133 142 The set of the	Odour Type		musty	chlorine	musty pine
Flavour Comment This ug/L Flavour Comment Flavour Comm	Odour Intensity	out of 3	0.5	1.5	1
Flavour Comment     ug/L     -     133     142       Triba     ug/L     -     133     142       Total Coldroms     ch/10mal     111     2     -       Hetterotopic Place Count (7 day)     ch/11 and     119     126     4       Hetterotopic Place Count (7 day)     ch/10mal     -     -     -     -       Klobain     ch/10mal     -     -     -     -     -       Molds     ch/10mal     -     -     -     -     -       Molds     ch/11     107     8     2     -       Molds     ch/11     107     8     2     -       Molds     ch/11     107     8     2     -       Staffae Reducing Baterin     org/11 mL     >110     -     -     -       Too Depende Baterin     org/11 mL     >110     -     -     -       Too Toditing Baterin     org/11 mL     >110     -     -     -       Too Toditing Baterin     org/11 mL     >110     -     -     -       Too Toditing Baterin     org/11 mL     >110     -     -     -       Too Toditing Baterin     org/11 mL     >110     -     -     -       Ta C Op	Flavour Profile	out of 10	NA	6.5	6.5
Thisug/L-133142Total Cokformscfu/10mltut<1	Flavour Comment				1 [
Total Cokiforms chulc vice (1 clickions chulc of vice (1 clickions chulc chulom) 2 clickions (1 clickions) (1 vice (1 clickions) (1 vice (1 clickions)) (1 vice					
Total Cokiforms       cfU100ml       2       cl       cl         Fead Cokiforms       cfU100ml       2       cl       cl         Heterotopic Plate Conx (r Any)       cfU100ml       119       126       cl         Kebracian       cfU100ml       cl       cl       cl       cl         Fead Streptococcus       cfU100ml       107       8       2       cl         Molds       cfU1 mL       127       35       34       cl       cl <td>THMa</td> <td>ue/L</td> <td>-</td> <td>133</td> <td>142</td>	THMa	ue/L	-	133	142
Fead Coliforms       cfu1 al.       119       126       4         Heterotogic Plate Comx (7 days)       cfu1 al.       190       126       4         Heterotogic Plate Comx (7 days)       cfu1 al.       190       1       1138         Kohmida       cfu1 al.       107       8       2         Fead Streptococcus       cfu1 al.       107       8       2         Molas       cfu1 al.       107       8       2         Tom Reducing Bateria       org/1 ml.       210       0.3       0.3         Suffer Reducing Bateria       org/1 ml.       2110       0.3       0.3         Tomoulfare Reducing Bateria       org/1 ml.       2110       0.3       0.3         Tomoulfare Reducing Bateria       org/1 ml.       2110       0.3       0.3         Tomoulfare Reducing Bateria       org/1 ml.       210       0.3       0.3         Tomoulfare Reducing Bateria       org/1 ml.       210       0.3       0.3         Te O problems       none       none       120       0.3         Revord Filter Backwash       none       120       120       120         Norme planit program       yes       Soree       5       120					
Fead Coliforms       cfu1 al.       119       126       4         Heterotogic Plate Comx (7 days)       cfu1 al.       190       126       4         Heterotogic Plate Comx (7 days)       cfu1 al.       190       1       1138         Kohmida       cfu1 al.       107       8       2         Fead Streptococcus       cfu1 al.       107       8       2         Molas       cfu1 al.       107       8       2         Tom Reducing Bateria       org/1 ml.       210       0.3       0.3         Suffer Reducing Bateria       org/1 ml.       2110       0.3       0.3         Tomoulfare Reducing Bateria       org/1 ml.       2110       0.3       0.3         Tomoulfare Reducing Bateria       org/1 ml.       2110       0.3       0.3         Tomoulfare Reducing Bateria       org/1 ml.       210       0.3       0.3         Tomoulfare Reducing Bateria       org/1 ml.       210       0.3       0.3         Te O problems       none       none       120       0.3         Revord Filter Backwash       none       120       120       120         Norme planit program       yes       Soree       5       120	Total Coliforms	cfu/100ml	tnic	<1	<1
Hereroroge Plate Comr (48 hr)         chu lan.         119         126         4           Herroroge Plate Comr (48 hr)         chu lan.         150         1         1158           Klebniala         chu lan.         107         8         2           Facal Streptococcur         chu lan.         107         8         2           Mola         chu lan.         127         35         34           Tasen Blasteria         org 1 ml.         >110         0.3         -0.3           Sulfae Reducing Bateria         org 1 ml.         >110         0.3         -0.3           Taineulifae Reducing Bateria         org 1 ml.         >110         0.3         -0.3           Inno Oxiding Bateria         org 1 ml.         >110         0.3         -0.3           Inno Oxiding Bateria         org 1 ml.         >110         0.3         -0.3           Inno Oxiding Bateria         org 1 ml.         >10         0.3         -0.3           Inno Oxiding Bateria         org 1 ml.         >10         0.3         -0.3           Inno Oxiding Bateria         org 1 ml.         >10         0.3         -0.3           Versition Sorger maine         nore         -0.3         -0.3           <					
Heteroorgin Plate Come (7 days)         cful (200)         1         1138           Kohesialin         cful (200)         107         8         2           Fend Streptococcus         cful (200)         107         8         2           Molds         cful (200)         107         8         2           Iron Restang Bacteria         org/ ml.         210         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3         40.3				4	
Schwarz         chu John         <1					
Free3 Erroptococcus         chU/ind.         107         8         2           Wolds         chU/ind.         127         35         34           Iron Reducing Bacteria         org/ind.         >110         40.3         <0.3					
Molds       cful ml.       40       -1       -1         Yest       cful ml.       127       35       34         Iron Reducing Bacteria       org/1 ml.       >110       -0.3       -0.3         Sulfae Reducing Bacteria       org/1 ml.       >110       -0.3       -0.3         Inon Cadizing Bacteria       org/1 ml.       >110       -0.3       -0.3         Thiosulfae Reducing Bacteria       org/1 ml.       >110       -0.3       -0.3         Inon Cadizing Bacteria       org/1 ml.       >110       -0.3       -0.3         Ireator       bigh       275       -0.3       -0.3         Ireator       low       120       -0.3       -0.3         Recycel Filler Backwash       none       -0.3       -0.3         Storage       m3       3813       -0.4       -0.3         Average Daily Production       m3       3813       -0.4       -0.3         Yesthoding Samoling					
Year         cfull al.         127         35         44           iron Reducing Bacteria         org/ ml.         >110         -0.3         <0.3					
Irom Reducing Basteria       org/1 mL       >110       0.3       <0.3			1		
Sulfar Reducing Bacteria org/1 mL 24 0.3 0.3 0.3 Sulfar Reducing Bacteria org/1 mL >110 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.					
Sulfar Reducing Basteria         orp/I ml.         24         0.3         -0.3           Sulfar Reducing Basteria         orp/I ml.         >110         -0.3         >110           Thioenfrae Reducing Basteria         org/I ml.         >110         -0.3         >10           Iron Outsing Basteria         org/I ml.         >110         -0.3         >10           Para Operations         28         -         -         -           Para Operations         none         -         -         -           Para Operations         none         -         -         -         -           Para Operations         none         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -	Iron Reducing Bacteria	org/1 mL	>110		
Shifts Reducing Bacteria         org/l mL         46         0.3         <0.3			24	<0.3	
Thiomathies Refuence Bacteria org/1 mL			46	<0.3	
Iron Oxidizing Bacteria org/1 mL >110 40.3 40.3 Plant Operations Plant Operations Hardness high Dastribution system flushing program. Storage m3 Average Daily Production m3 Average Daily Producti			>110	<0.3	>110
Plant Operations       Person hours to operate plant per week       T & O problems       Hardness     high       10w     120       Writer is high     275       10w     120       Writer is high     20       Average Daily Production     m3       Average Daily Production     m3       Average Daily Production     m3       Average Daily Production     m3       Treatment     CgA/Fb/Clt/pH/Rfb/TWR       Weekby Sambling Romine     Raw       Treatment     CgA/Fb/Clt/pH/Rfb/TWR       Weekby Sambling Romine     Raw       Treated     7       total Cl2     -       total Cl2     -       total Cl2     -       total Cl2     -       pH     -       Fe     -       Alkabinity     -       Microbial     per month       Chernical Dosing and Operating, Strategy     100       Coogularus     current       Iow     40       high     250       high     -       Soda Ash     current       iow     -       iow     -       blow     -       ingh     -       Disinfection     36					<0.3
Person hours to operate plant per weck     28       T & O problems     none       Hardness     high low     275       Hardness     high low     120       Recycel Filter Backwash     no       Distribution system flushing program.     yer       Storage     m3     660       Average Delly Production     m3     3813       Average Delly Production     m3     3813       Teatment     CgAVFIc/Clr/pHCfl/TWR       Weekly Sampling Routine     7       free C12     7       tobal C12     7       Weekly Sampling Routine     7       File     7       Floride     7       Color     7       Hardness     7       Min     -       Fe     -       Alkalinity     7       Microbial     per month       Now     40       high     250       type     atom       ow     0.2       high     0.3       tow     0.3       bigh     0.3       bigh     3.6       Jow     0.3       bigh     3.6       bigh     3.6       bigh     3.6       bigh     -			1	· /-	-
Person hours to operate plant per weck     28       T & O problems     none       Hardness     high low     275       Hardness     high low     120       Recycel Filter Backwash     no       Distribution system flushing program.     yer       Storage     m3     660       Average Delly Production     m3     3813       Average Delly Production     m3     3813       Teatment     CgAVFIc/Clr/pHCfl/TWR       Weekly Sampling Routine     7       free C12     7       tobal C12     7       Weekly Sampling Routine     7       File     7       Floride     7       Color     7       Hardness     7       Min     -       Fe     -       Alkalinity     7       Microbial     per month       Now     40       high     250       type     atom       ow     0.2       high     0.3       tow     0.3       bigh     0.3       bigh     3.6       Jow     0.3       bigh     3.6       bigh     3.6       bigh     3.6       bigh     -					
Person hours to operate plant per weck     28       T & O problems     none       Hardness     high low     275       Hardness     high low     120       Recycel Filter Backwash     no       Distribution system flushing program.     yer       Storage     m3     660       Average Delly Production     m3     3813       Average Delly Production     m3     3813       Teatment     CgAVFIc/Clr/pHCfl/TWR       Weekly Sampling Routine     7       free C12     7       tobal C12     7       Weekly Sampling Routine     7       File     7       Floride     7       Color     7       Hardness     7       Min     -       Fe     -       Alkalinity     7       Microbial     per month       Now     40       high     250       type     atom       ow     0.2       high     0.3       tow     0.3       bigh     0.3       bigh     3.6       Jow     0.3       bigh     3.6       bigh     3.6       bigh     3.6       bigh     -	Plant Operations		1		
Hardness high low l275 low l20 Recycel Filter Backwash no Distribution system flushing program yes Storage m3 660 Average Daily Production m3 3813 Ave. Theoretical Hydraubic Detention, hr. 4.2 Treatment CQAFE/Cltr/pWR/dr/TWR Weekly Sampling Routine free C12 7 total C02 7 tarthotity sampling Routine free C12 7 total C02 7 tarthotity 7 total C02 7 pH 7 Floride 7 Color 7 Hardness 7 Mn Fe 7 Fe Altabinity 7 Microbial per month 8 Chernical Dosing and Operating Strategy Coegulants current 03 high 250 type altum adjuatment based on turbidity of raw water Polymer Low 40 high 0.3 type 7 Soda Ash current 1 Disinfection current 36 Jow 25 high 3.6 type C12 gas 1 based on jar test 1 Disinfection current 36 Jow 25 high 3.6 type C12 gas 3 adjuatment based on jar test 1 Jow 25 high 3.6 type C12 gas 3 adjuatment based on jar test 3 Jow 25 high 3.6 type C12 gas 3 adjuatment based on jar test 3 Jow 25 high 3.6 type C12 gas 3 adjuatment 4 Jow 1 Jow 1 Jow 1 Jow 1 Jow 1 Jow 25 high 3.6 type C12 gas 3 dation 1 Jow 1 J	Person hours to operate plant per we	eek		28	
low     120       Recycel Filter Backwash     no       Distribution system flushing program     yes       Storage     m3       Average Daily Production     m3       Average Daily Production, hr.     4.2       Treatment     CQAFF2/Ctr/pH/Rf2/TWR       Weekly Sampling Routine     Raw       Treatment     CQAFF2/Ctr/pH/Rf2/TWR       Weekly Sampling Routine     7       free Cl2     -       total Cl2     -       tartodddy     7       temperature     7       pH     7       Floride     7       Color     7       Hardness     7       Min     -       Fe     -       Alkatinity     7       Minerobial     per month       Soda Ash     current       low     40       high     250       type     preastol       based on jar test     -       Soda Ash     current       low     -       high     3.6       type     Cl2 gas       adjustment     based on residual       low     -       high     3.6       type     Cl2 gas       adjustment     -	T & O problems			none	
low     120       Recycel Filter Backwash     no       Distribution system flushing program     yes       Storage     m3       Average Daily Production     m3       Average Daily Production, hr.     4.2       Treatment     CQAFF2/Ctr/pH/Rf2/TWR       Weekly Sampling Routine     Raw       Treatment     CQAFF2/Ctr/pH/Rf2/TWR       Weekly Sampling Routine     7       free Cl2     -       total Cl2     -       tartodddy     7       temperature     7       pH     7       Floride     7       Color     7       Hardness     7       Min     -       Fe     -       Alkatinity     7       Minerobial     per month       Soda Ash     current       low     40       high     250       type     preastol       based on jar test     -       Soda Ash     current       low     -       high     3.6       type     Cl2 gas       adjustment     based on residual       low     -       high     3.6       type     Cl2 gas       adjustment     -				0.77	
Recycel Filter Backwash     winster is high       Distribution system flushing program     yes       Storage     m3     660       Average Daily Production     m3     3813       Ave: Theoretical Hydraubic Detention, hr.     4.2       Treatment     CgA/Fie/Clr/pH/Rfb/TWR       Veeklv Sampling Routine     Raw     freeded       free C12     7     100       total C12     7     7       turbidity     7     7       H     7     7       Floride     7     7       Color     7     7       Hardness     7     7       Mr.     -     7       Fe     7     7       Alkaininy     7     7       Microbial     per moath     8       Chernical Doring and Operating Strategy     7       Coagulanus     current     100       low     40     100       high     250     100       tight     -     -       low     0.3     100       low     0.3     100       low     0.3     100       high     -3     -       low     -     -       high     -     -					
Recycel Filer Backwash no Distribution system flushing program yes Storage m3 660 Average Daily Production m3 3813 Ave. Theoretical Hydraubic Detention, hr. m3 Treatment CgAVFIe/Clr/pWR20/TWR WeskV Samoling Routine free C12 7 total C12 7 Hardness 7 Fe Alkatinity 7 Fe Alkatinity 7 Microbial per moath 8 Chemical Dosing and Operating Strategy 7 Coagulants 0 type altum adjustment 0 high 0.3 type 1 Soda Ash 0 Low 40 high 0.3 type 250 type 1 safustment 0 adjustment 0 based on tarbidity of new water 0 100 100 100 100 100 100 100 1		low			
Distribution system flushing program yes Storage m3 660 Average Daily Production m3 3813 Aver. Theoretical Hydraubic Detention, hr. 4.2 m3 Treatment C&VFG/Cltr/pH/R2b/TWR Weekly Samoling Routine free C12 total C12 tarbidity 7 temperature 7 pH Floride 7 Floride 7 Color 7 Hardness 7 Mr. 7 Fe Alkasinity 7 Microbial per moath 8 Chernical Doning and Operating Strategy Cosgulants current 0.3 Cosgulants 100 Figh 250 type atum adjustment 0.3 Figh 0.3 Figh 0.3 Figh 0.3 Figh 0.3 Figh 0.3 Figh 3.6 Figh 3					
Storage m3 660 Average Daily Production m3 Ave. Theoretical Hydraubic Detention, hr. m3 Treatment C2A/Fi2/Clr/pli/Rdb/TWR Westly Sampling Routine free Cl2 total Cl2 tarbidity temperature pH Floride Color Hardness 7 Kaw 7 Fe Alkaliniry 7 Min Fe Alkaliniry 7 Microbial per moath 8 Chemical Dosing and Operating Strategy Coagularus 1000 high 250 type alturn adjustment 0.3 type presstol adjustment 0.3 type type presstol based on turbidity of raw water 0.3 type type presstol based on turbidity of raw adjustment 0.3 type type presstol based on turbidity of raw adjustment 0.3 type cl2 gas 0.3 type 0.3 type cl2 gas 0.3 type 0.3	Recycel Filter Backwash			no	
Storage m3 660 Average Daily Production m3 Ave. Theoretical Hydraubic Detention, hr. m3 Treatment C2A/Fi2/Clr/pli/Rdb/TWR Westly Sampling Routine free Cl2 total Cl2 tarbidity temperature pH Floride Color Hardness 7 Kaw 7 Fe Alkaliniry 7 Min Fe Alkaliniry 7 Microbial per moath 8 Chemical Dosing and Operating Strategy Coagularus 1000 high 250 type alturn adjustment 0.3 type presstol adjustment 0.3 type type presstol based on turbidity of raw water 0.3 type type presstol based on turbidity of raw adjustment 0.3 type type presstol based on turbidity of raw adjustment 0.3 type cl2 gas 0.3 type 0.3 type cl2 gas 0.3 type 0.3		_			
Average Daily Production m3 Aver. Theoretical Hydraubic Detention, hr. Treatment CRAFLe/Ctr/pH/Rf2/TWR Weekly Sampling Routine free C12 Urekly Sampling Routine free C12 tarbidity temperature pH Floride Color Hardness Fe Alkainity Microbial per month Fe Alkainity Microbial per month Soda Aah current low 40 high 0.3 type preatol adjustment Soda Aah current low 2.5 high 3.6 type C12 gas adjustment Soda Aah current Disinfection current low 2.5 high 3.6 type C12 gas adjustment Pobymer C12 gas adjustment Pobymer Current Low 2.5 high 3.6 type C12 gas adjustment Pobymer C12 gas adjustment Pobymer C12 gas adjustment Pobymer C12 gas Abjuh 3.6 type C12 gas adjustment Pobymer C12 gas adjustment Pobymer C12 gas Abjuh 3.6 type C12 gas Control Abjuh 3.6 type C12 gas Control Ab	LASINDUDON SYSTEM DUSING Program	n		уск	
Average Daily Production m3 Aver. Theoretical Hydraubic Detention, hr. Treatment CRAFLe/Ctr/pH/Rf2/TWR Weekly Sampling Routine free C12 Urekly Sampling Routine free C12 tarbidity temperature pH Floride Color Hardness Fe Alkainity Microbial per month Fe Alkainity Microbial per month Soda Aah current low 40 high 0.3 type preatol adjustment Soda Aah current low 2.5 high 3.6 type C12 gas adjustment Soda Aah current Disinfection current low 2.5 high 3.6 type C12 gas adjustment Pobymer C12 gas adjustment Pobymer Current Low 2.5 high 3.6 type C12 gas adjustment Pobymer C12 gas adjustment Pobymer C12 gas adjustment Pobymer C12 gas Abjuh 3.6 type C12 gas adjustment Pobymer C12 gas adjustment Pobymer C12 gas Abjuh 3.6 type C12 gas Control Abjuh 3.6 type C12 gas Control Ab	Storage	m3		660	
Ave. Theoretical Hydraubic Detention, hr.     4.2       m3	0001060	_			
mail     million       Weekly Sampling Routine free Cl2     Raw     Treated       free Cl2     -     -       total Cl2     -     -       tarbidity     7     -       temperature     7     -       pH     -     7       Floride     7     -       Color     7     -       Marchess     7     -       Mn     -     -       Fe     -     -       Alkabinity     7     -       Microbial     per month     8       Chernical Dosing and Operating Strategy     100       Cosquiants     current     100       ibw     40     -       high     250     -       type     aturn     -       object     aturn     -       bigh     0.3     -       low     0.2     -       high     -     -       Soda Aah     current     -       low     -     -       high     3.6     -       bigh     3.6     -       bigh     3.6     -       bigh     -     -       bigh     -     -       bigh					
Treatment     CgAFE/C/Chr/pH/Rfb/TWR       Weekty Sampling Routine free C12     Raw     Treated       total C12     -     -       tarthidity     7     -       tarthidity     7     -       pH     7     -       Floride     7     -       Color     7     -       Hardness     7     -       Mr.     -     -       Fe     -     -       Alkabinity     7     -       Microbial     per month     8       Chemical Dosing and Operating Strategy     100       Coagulanus     low     40       high     250       high     250       bype     alumn       adjustment     based on turbidity of raw water       Polymer     current     0.3       iow     0.2     high       adjustment     based on jar test       Soda Aah     current     -       low     2.5     high       adjustment     3.6       bigh     3.6       type     adjustment       bigh     3.6       type     adjustment       low     2.5       high     3.6       type	Ave. Inscretical Hydraulic Detention	п, п.			
Weekly Sampling Routine free C12 total C12 tarthidity         Raw         Treated           1         7         -         -           tarthidity         7         -         -           tarthidity         7         -         -           pH         7         -         -           Floride         7         -         -           Color         7         -         -           Hardness         7         -         -           Mn         -         -         -           Fe         -         -         -           Alkakinity         7         -         -           Microbial         per month         8         -           Chemical Dosing and Operating Strategy         -         -         -           Coagulanus         Low         40         -         -           Jow         40         -         -         -           Polymer         current         0.3         -         -           Low         0.3         -         -         -           Soda Aah         current         -         -         -           Low         adjustment				_	
free Cl2 total Cl2 tarthidity temperature pH Floride Color Hardness Mn Fe Alkakinity Temperature pH Fordide Color Hardness Mn Fe Alkakinity Temperature Cosgnianus Consension Down adjustment Disinfection Soda Ash Current Iow Disinfection Low Alta Disinfection Low Alta dipatiment Disinfection Low Alta Disinfection Low Alta Disinfection Low Alta Disinfection Low Alta Disinfection Low Low Low Alta Disinfection Low Low Low Alta Disinfection Low Low Low Low Alta Disinfection Low Low Low Low Low Low Low Low					*K
total C12 tarthetidity temperature pH Formide Color Forminal Dosing and Operating Strategy Coagniants Chernical Dosing and Operating Chernical Dosing Chernical			ROBAN		
terbidity tempenture pH Floride Color Hardness Hardness Hardness Kongentaria Fe Altakinity Min Fe Altakinity Microbial per moath Fe Altakinity Microbial per moath Fe Altakinity Microbial per moath B Chemical Dosing and Operating Strategy Coegulanus Low Hugh Solution Low Altakinent Low Altakinent B Chemical Dosing and Operating Strategy Coegulanus Low Altakinent B Chemical Dosing and Operating Strategy Coegulanus Low Altakinent B Chemical Dosing and Operating Strategy Coegulanus Low Altakinent B Chemical Dosing and Operating Strategy Coegulanus Low Altakinent B Chemical Dosing and Operating Strategy Coegulanus Low Altakinent B Chemical Dosing and Operating Strategy Coegulanus Low Altakinent B Chemical Dosing and Operating Strategy Coegulanus Low Altakinent B Chemical Dosing and Operating Strategy Coegulanus Low Altakinent B Chemical Dosing and Operating Strategy Coegulanus Low Altakinent Chemical Dosing and Operating Chemic			1	7	
temperature 7 pH Floride Color PH Floride Color Hardness Mn Fe Alkabinity			1	-	
pH Floride Color Hardness Mr. Fe Alkatiniry Microbial per moath Fe Alkatiniry Microbial per moath Fe Alkatiniry Microbial per moath Solution Chemical Dosing and Operating Strategy Coagularus current low adjustment based on turbidity of raw water Polymer Low adjustment low 0.3 bype preastol adjustment based on turbidity of raw water 0.3 based on turbidity of raw water Soda Aah current low adjustment based on jar test Soda Aah current low 2.5 high 3.6 type adjustment 5.5 high 3.6 type adjustment 1.5 based on residual Current 1.5 based on residual T & O control based on residual T & O control based on residual Current 1.5 based on residual Current 1.5 Current 1.5 Current 1.5 Current 1.5 Current 1.5 Current 1.5 Current 1.5 Current 1.5 Current 1.5 Current 1.5 Current 1.5 Current 1.5 Current 1.5 Current 1.5 Current 1.5 Current 1.5 Current 1.5 Current 1.5 Current 1.5 Current 1.5 Current 1.5 Current 1.5 Current 1.5 Current 1.5 Current 1.5 Current 1.5 Current 1.5 Current 1.5 Current 1.5 Current 1.5 Current 1.5 Current 1.5 Current 1.5 Current 1.5 Current 1.5 Current 1.5 Current 1.5 Current 1.5 Current 1.5 Cu					
Fordide 7 Color Hardness Color Hardness Mn Fe Altashnity Mcrobial per moath Fe Cosgulants Current low Altain based on tarbidity of raw water Cosgulants Current low Altain based on tarbidity of raw water Cosgulants Current	temperature				1
Floride 7 Color 4 Hardness 7 Mr. 7 Fe Altasianity 7 Microbial per month 8 Cherroical Dosing and Operating Strategy 7 Cosgulants current 100 high 250 type alturn 400 high 250 type alturn 5 Cosgulants 0.3 low 40 high 0.3 type pression tarbidity of raw water 0.3 low 0.2 high 0.3 type pression tarbidity of raw water 0.3 low 0.2 high 0.3 type pression tarbidity of raw water 0.3 low 0.2 high 0.3 type current 0.3 low 0.2 high 0.3 type tarbidity of raw water 0.3 low 0.2 high 0.3 type current 0.3 low 0.2 high 0.3 type tarbidity of raw water 0.3 Soda Aah current 0 low 0.2 high 0.3 type tarbidity 0 for the tarbidity of raw water 0.3 low 0.2 high 0.3 type tarbidity 0 for the tarbidity of raw water 0.3 low 0.2 high 0.3 type tarbidity 0 for the	PH		1	7	
Color Hardness Mn Fe Alkaininy Min Fe Alkaininy Microbial per moath Chernical Dosine and Operating Strategy Cosgulants current low Number of the second of the				7	
Hardness 7 Mr				7	
Mn.     -       Fe     -       Alkabinity     7       Microbial     per month     8       Chernical Dosing and Operating Strategy     100       Cosquiants     current     100       ibw     40       high     250       type     altum       adjustment     based on turbidity of raw water       Polymer     current       ibw     0.3       ibw     0.2       high     0.3       Soda Aah     current       ibigh     -       bigh     -       bigh     -       Disinfection     current       joye     2.5       high     3.6       jype     Cl2 gas       bigh     3.6       jype     2.5       high     3.6       jype     Cl2 gas       adjustment     -       bigh     3.6       jype     Cl2 gas       high     -       low     2.5       high     -       high     -				7	
Fe     -       Altashniry     7       Microbial     per moath       Cherraical Dosine and Operating Strategy     100       Cosquiants     current       low     40       high     250       type     atum       adjustment     based on turbidity of raw water       Polymer     current       low     0.3       type     presentol       adjustment     based on turbidity of raw water       Polymer     current       low     0.2       high     0.3       type     presentol       adjustment     based on jar test       Soda Ash     current       low     2.5       high     -       adjustment     -       low     2.5       high     3.6       type     current       low     2.5       high     3.6       type     cl2 gas       adjustment     based on residual       tow     2.5       high     -       low     2.5       high     -       low     -       low     -       high     -       low     -			1	L	
Alkalinity     7       Microbial     per moath     8       Chemical Dosing and Operating Strategy     100       Coagularus     low     40       high     250       high     38       Polymer     alturn       low     0.3       type     alturn       bigh     0.3       type     preastol       high     0.3       type     preastol       adjustment     based on turbidity of new water       Polymer     current       low     0.2       high     -       adjustment     based on jar test       Soda Aah     current       low     -       bigh     -       adjustment     -       bigh     -       bigh     3.6       type     Cl2 gas       bigh     3.6       type     Cl2 gas       adjustment     based on residual       T & O control     current       low     -       high     -				j	
Microbial         per month         8           Chernical Dosing and Operating Strategy         100         100           Cosquiants         low         40           high         250         type           sdjustment         based on turbidity of raw water         0.3           Polymer         current         0.3           low         0.2         high         0.3           bigh         0.3         low         0.2           bigh         0.3         test         outrent           sdynstment         based on jar test         outrent           sdynstment         -         bigh         -           bigh         -         bigh         -           bigh         -         bigh         -           bigh         3.6         type         test           Disinfection         low         2.5         high         3.6           type         Cl2 gas         adjustment         -         test           Jow         3.6         type         test         test         test           bigh         3.6         type         test         test         test           low         low <td></td> <td></td> <td></td> <td></td> <td></td>					
Chemical Dosing and Operating Strategy     100       Coagularus     low     40       high     250       high     250       hype     alumn       adjustment     based on turbidity of new water       Polymer     current       low     0.3       kigh     0.3       kigh     0.3       based on jar lest       sdynstment     based on jar lest       bagh     -       high     -       bigh     -       bigh     3.6       type     adjustment       bigh     3.6       type     Cl2 gas       adjustment     -       bigh     3.6       type     Cl2 gas       adjustment     based on residual       Current     -       high     -       high     -			6	7	
Chemical Dosing and Operating Strategy     100       Coagularus     low     40       high     250       high     250       hype     alumn       adjustment     based on turbidity of new water       Polymer     current       low     0.3       kigh     0.3       kigh     0.3       based on jar lest       sdynstment     based on jar lest       bagh     -       high     -       bigh     -       bigh     3.6       type     adjustment       bigh     3.6       type     Cl2 gas       adjustment     -       bigh     3.6       type     Cl2 gas       adjustment     based on residual       Current     -       high     -       high     -			C	7	
Coagniants     current     100       low     40       high     250       type     altum       adjustment     based on turbidity of raw water       Polymer     current       low     0.2       high     0.3       type     presetol       gayatment     based on turbidity of raw water       Soda Ash     current       low     0.2       high     0.3       type     presetol       adjustment     -       low     -       high     -       bigh     -       current     3.6       jope     gatigustment       Disinfection     current       low     2.5       high     3.6       type     Cl2 gas       adjustment     based on residual       T & O control     current       low     -       high     -	Alkalinity	per month	6	7	
low 40 high 250 type alum. adjustment based on turbidity of new water 0.3 low 0.2 high 0.3 type preatol adjustment based on jar lest Soda Aah current - low - high - adjustment - low - high - adjustment - low - high - adjustment - bigh - adjustment - low - high - adjustment - bigh - adjustment - low - high - - bigh - - - bigh - - - bigh - - - bigh - - - bigh - - - - bigh - - - - bigh - - - - - - - - - - - - - -	Alkalinity Microbial			8	
high     250       type     atum.       edjustment     based on turbidity of raw water       Polymer     current     0.3       low     0.2       high     0.3       type     presstol       sdystment     based on jar test       Soda Aah     current       low     -       high     -       high     -       bigh     -       Disinfection     current       low     2.5       high     3.6       type     Cl2 gas       adjustment     -       bigh     3.6       type     Cl2 gas       adjustment     based on residual       T & O control     current       high     -	Alkalinity Microbial Chemical Dosing and Operating Stra	BLERY		7 7 8 100	
type     altum.       adjustment     based on turbidity of raw water       Polymer     current     0.3       low     0.2       high     0.3       kppe     presstol       adjustment     based on jar test       Soda Ash     current       low     -       high     -       adjustment     -       based on jar test     -       bigh     -       adjustment     -       bigh     -       adjustment     -       bigh     -       bigh     3.6       low     2.5       high     3.6       type     Cl2 gas       adjustment     based on residual       T & O control     current       low     -       high     -       high     -	Alkalinity Microbial Chemical Dosing and Operating Stra Cosgulants	elegy cutrent			
adjustment     based on turbidity of raw water       Potymer     current     0.3       low     0.2     high       bigh     0.3       stype     presstol       adjustment     based on jar test       Soda Ash     current       low     -       high     -       bigh     -       adjustment     -       bigh     -       bigh     -       bigh     -       bigh     3.6       low     2.5       bigh     3.6       type     Cl2 gas       adjustment     based on residual       T & O control     current       low     -       high     -	Alkalinity Microbial Chemical Dosing and Operating Stra Cosgularits	<u>stegy</u> current low		40	
Polymer     current     0.3       low     0.2       high     0.3       Kype     presstol       adjustmeni     based on jar test       Soda Ash     current       low     -       high     -       bigh     -       bigh     -       Disinfection     current       low     2.5       high     3.6       low     2.5       high     3.6       lype     Cl2 gas       adjustment     -       low     2.5       high     3.6       low     2.5       high     3.6       type     Cl2 gas       adjustment     -       low     -       high     -	Alkalinity Microbial <u>Chemical Dosing and Operating Stra</u> Coagulants	<u>stegy</u> current low high		40 250	
low 0.2 high 0.3 type presstol adjustmeni based on jar test current - bigh - adjustmeni - bigh - bigh 3.6 low 2.5 high 3.6 type Cl2 gas adjustmeni based on residual T & O control Current - low - high - high - based on jar test	Alkalinity Microbial Chemical Dosing and Operating Stra Coagularus	<u>stegy</u> current low high type		40 250 alum	f 1990 Water
high     0.3       type     presstol       adjustment     based on jar test       Soda Aah     current       low     -       high     -       adjustment     -       bigh     3.6       low     2.5       high     3.6       type     Cl2 gas       adjustment     -       low     -       low     -       bigh     -       low     -       bigh     -       high     -	Allcalinity Microbial Chemical Dosing and Operating Stra Coagularus	stegy current low high type adjustment		40 250 alum based on turbidity o	f rew water
type     preantol       adjustmenti     based on jar test       Soda Aah     current       low     -       high     -       adjustment     -       Disinfection     current       low     2.5       high     3.6       lype     Cl2 gas       adjustment     based on residual       T & O control     current       low     -       high     -       low     -       high     -	Alkalinity Microbial <u>Chemical Dosing and Operating Stra</u> Coagulants Polymer	stegy current low high type adjustment current		40 250 alum based on turbidity o 0.3	f raw water
sdynstmeni based on jær test Soda Ash currerd - low - high - Disinfection current 3.6 low 2.5 high 3.6 type Cl2 gas adjustment based on residual T & O control current - low - high -	Alkalinity Microbial <u>Chernical Dosing and Operating Stra</u> Coagulants Polymer	stegy current low high type adjustment current low		40 250 shum based on turbidity o 0.3 0.2	f rew water
Soda Aah current - low - high - adjustment - Disinfection current 3.6 low 2.5 high 3.6 type Cl2 gas adjustment besed on residual T & O control current - low - high -	Alkalinity Microbial <u>Chemical Dosing and Operating Stra</u> Coagulants Polymer	stegy current low high type adjustment current low high		40 250 alum based on turbidity o 0.3 0.2 0.3	f rew water
low - high - adjustment - Disinfection current 3.6 low 2.5 high 3.6 type Cl2 gas adjustment based on residual current - low - high -	Alkalinity Microbial <u>Chemical Dosing and Operating Stra</u> Coagulants Polymer	stery current low high type adjustment current low high type		40 250 alum based on turbidity o 0.3 0.2 0.3 preastol	f raw water
high	Alkabinity <u>Microbial</u> <u>Chemical Dosing and Operating Stra</u> Coagularus Polymer	ategy current low high type adjustment current low high type adjustment		40 250 alum based on turbidity o 0.3 0.2 0.3 preastol based on jar test	f row water
adjustment     -       Disinfection     current     3.6       low     2.5       high     3.6       type     Cl2 gas       adjustment     based on residual       T & O control     current       low     -       high     -	Alkalinity Microbial <u>Chemical Dosing and Operating Stra</u> Coagulatus Polymer Soda Ash	stegy current low high type adjustment current low high type adjustment current		40 250 alum based on turbidity o 0.3 0.2 0.3 preastol based on jar test	f rew water
Disinfection current 3.6 low 2.5 high 3.6 type Cl2 gas adjustment based on residual current - low - high -	Alkalinity Microbial <u>Chemical Dosing and Operating Stra</u> Coagulants Polymer Soda Aah	ategy current low high type adjustment current low high type adjustment current low		40 250 alum based on turbidity of 0.3 0.2 0.3 preastol based on jar test -	f raw water
low 2.5 high 3.6 type Cl2 gas adjustment based on residual T & O control current - low - high -	Alkalinity <u>Microbial</u> <u>Chemical Dosing and Operating Stra</u> Coagulatus Polymer Soda Ash	ategy current low high type adjustment current low high type adjustment current low high		40 250 alum based on turbidity of 0.3 0.2 0.3 preastol based on jar test -	f raw water
high 3.6 type Cl2 gas adjustment based on residual T & O control current - low - high -	Alkalinity Microbial <u>Chemical Dosing and Operating Stra</u> Coagulants Polymer Soda Anh	stery current low high sdjustment current low high sdjustment current low bigh adjustment		40 250 alum. based on turbidity of 0.3 0.2 0.3 preased on jar test - -	f raw water
high 3.6 type Cl2 gas adjustment based on residual T & O control current - low - high -	Alkalinity Microbial <u>Chemical Dosing and Operating Stra</u> Coagulants Polymer Soda Anh	stery current low high sdjustment current low high sdjustment current low bigh adjustment		40 250 alum. based on turbidity of 0.3 0.2 0.3 preased on jar test - -	f row water
type Cl2 gas adjustment based on residual T & O control current - low - high -	Alkalinity Microbial <u>Chemical Dosing and Operating Stra</u> Coagulatus Polymer Soda Ash Disinfection	stery current low high type adjustment current low high type adjustment current low high adjustment current		40 250 alum based on turbidity of 0.3 0.2 0.3 0.2 0.3 preastol based on jar test - - - 3.6	l rew water
adjustment based on residual T & O control current - low - high -	Alkalinity <u>Microbial</u> <u>Chemical Dosing and Operating Stra</u> Coagulatus Polymer Soda Ash Disinfection	stery current low high type adjustment current low high sdjustment current low high adjustment current low		40 250 alum based on turbidity o 0.2 0.2 0.3 preastol based on jar test - - - - 3.6 2.5	f raw water
T & O control current - low - high -	Alkalinity Microbial <u>Chemical Dosing and Operating San</u> Coagulatus Polymer Soda Ash Disinfection	steev current low high type adjustment current low high type adjustment current low high adjustment current low high adjustment current low		40 250 alum. based on turbidity of 0.3 0.2 0.3 preastol based on jar test - - - - 3.6	f raw water
low - high -	Alkabinity <u>Microbial</u> <u>Chemical Dosing and Operating Stra</u> Coagulatus Polymer Soda Ash Disinfection	steey carrent low high type current low type adjustment low high current low high current low high current low high type		40 250 alum based on turbidity o 0.2 0.3 preastol based on jar test - - - 3.6 2.5 3.6 (22 gas	f raw water
high -	Alkabinity <u>Microbial</u> <u>Chemical Dosing and Operating Stra</u> Coagnianus Polymer Soda Ash Disinfection	steey current low high current low high dyse sdysstment current low high adjustment current low bigh dys dys dys sdystment current low		40 250 alum based on turbidity o 0.2 0.3 preastol based on jar test - - - 3.6 2.5 3.6 (22 gas	f rew water
	Alkabinity <u>Microbial</u> <u>Chemical Dosing and Operating San</u> Coagulatus Polymer Soda Ash Disinfection T & O control	steev current low high stype distinction current low high adjustment current low bigh adjustment current low high stype adjustment current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current cur		40 250 altrm. based on turbidity of 0.2 0.3 preastol based on jar test - - - - - - - - - - - - - - - - - - -	f rew water
L byte -	Alkabinity <u>Microbial</u> <u>Chemical Dosing and Operating Stra</u> Coagulatus Polymer Soda Ash Disinfection T & O control	attesty courtent low high type sdjustment courtent low high sdjustment courtent low high sdjustment low high sdjustment courtent low high low low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low bigh low big big bigh low bigh low bigh low bigh low bigh l		40 250 altrm. based on turbidity of 0.2 0.3 preastol based on jar test - - - - - - - - - - - - - - - - - - -	f row water
	Alkabinity <u>Microbial</u> <u>Chemical Dosing and Operating Stra</u> Coagnianus Polymer Soda Ash Disinfection T & O control	steey current low high sight current low high sigh sight current low high adjustment current low high adjustment current low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low low high low low high low low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high high low high low high high low high high high low high high high high high high high hig		40 250 altrm. based on turbidity of 0.2 0.3 preastol based on jar test - - - - - - - - - - - - - - - - - - -	f raw water
adjustment -	Alkabinity <u>Microbial</u> <u>Chemical Dosing and Operating San</u> Coagulatur Polymer Soda Ash Disinfection T & O control	steev current low high stype distinct low high sdynstment current low bigh sdynstment current low bigh sdynstment current low bigh sdynstment current low bigh bigh bigh bigh bigh bigh bigh bigh		40 250 altrm. based on turbidity of 0.2 0.3 preastol based on jar test - - - - - - - - - - - - - - - - - - -	f raw water
Floride current 0.9	Alkabinity <u>Microbial</u> <u>Chemical Dosing and Operating Stra</u> Coagnianus Polymer Soda Ash Disinfection T & O control	attery current low high super super super type current low high super super low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low		40 250 alum based on turbidity of 0.2 0.3 yreastol based on jar test - - - 3.6 2.5 3.6 (2.2 gas based on residual - -	f røw water
low 0.9	Alkabinity <u>Microbial</u> <u>Chemical Dosing and Operating Stra</u> Coagulatus Polymer Soda Ash Disinfection T & O control Floride	steey current low high current low high low high adjustment current low adjustment current low bigh adjustment current low high high type current low high current current low high current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current curent current current current current current current current cur		40 250 altrm. based on turbidity of 0.2 0.3 0.2 0.3 preastol based on jar test - - - - - - - - - - - - - - - - - - -	f rew water
high 0.9	Alkabinity <u>Microbial</u> <u>Chemical Dosing and Operating San</u> Coagulatus Polymer Soda Ash Disinfection T & O control Floride	steey current low high stype current low sdystment current low sdystment current low bigh adjustment current low bigh adjustment current low high type adjustment current low bigh adjustment current low		40 250 alum based on turbidity of 0.3 0.2 0.3 0.2 0.3 preased on jar test - - - - - - - - - - - - -	f row water
	Alkabinity <u>Microbial</u> <u>Chemical Dosing and Operating Stra</u> Coagalanus Polymer Soda Ash Disinfection T & O control Floride	attery current low high low high low high low high sdynstment current low high adjustment current low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low low low low low low low low low low		40 250 alum based on turbidity of 0.2 0.3 preased on jar test - - - - - - - - - - - - -	
adjustment based on raw concentration	Alkabinity <u>Microbial</u> <u>Chemical Dosing and Operating Stra</u> Coagnianus Polymer Soda Ash Disinfection T & O control Floride	attery current low high low high low high low high sdynstment current low high adjustment current low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low low low low low low low low low low		40 250 alum based on turbidity of 0.2 0.3 preased on jar test - - - - - - - - - - - - -	
	Alleakinity <u>Microbial</u> <u>Chemical Dosing and Operating Stra</u> Coagulants Polymer Soda Ash Disinfection T & O control Floride	steey current low high stype current low sdystment current low sdystment current low bigh adjustment current low bigh adjustment current low high type adjustment current low bigh adjustment current low		40 250 alum based on turbidity of 0.3 0.2 0.3 preased on jar test - - - - - - - - - - - - -	f rew water
adjustment based on raw concentration Copper sulfate in RWR none	Alkalinity <u>Microbial</u> <u>Chemical Dosing and Operating Star</u> Cognitants Polymer Soda Ash Disinfection T & O control Floride	steey current low high current low high low high adjustment current low adjustment current low bigh adjustment current low high type current low high low high current low high statistication current low high statistication current low high statistication current low high statistication current low high statistication current low high low statistication current low high low high low statistication current low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low low high low high low high low high low high low high low high low high low high low high low high low high low high low high low high low low high low high low low high low low high low low low high low low low high low low low low low low low low low low		40 250 alum based on turbidity of 0.2 0.3 0.2 0.3 preased based on jar test - - - - - - - - - - - - - - - - - - -	

			WOKING 14-Jun-94	
Type of Sample		Raw	Treated	Distributed
Temperature	deg C	14.1	15.2	8.5
pH		7.2	6.8	6.64
Conductivity	Miro ohms/c	290	340	360
Turbidity	NTU	3.6	0.68	0.77
Total Chlorine	mg/L	NA	0.55	0.43
Free Chlorine	mg/L	NA	0.13	0.19
Color	TCU	60	10	10
Ammonia	mg/L	0.17	]-	-
Odour Type	-	musty-(fireworks s	-	chlorine + musty
Odour Intensity	out of 3	1	[	2.5
Flavour Profile	out of 10	NA	-	5
Flavour Comment				
THMs	ug/L	-	-	-
				]
Total Colifornis	cfu/100ml	10	<1	<1
Fecal Coliforns	cfa/100m]	1	<1	
Heterotropic Plate Count (48 hr)	cfu/1 mL	1522	<1	1
	cfu/1 mL	1322	<b>[</b> ]	l+
Heterotropic Plate Count (7 days) Klebsiella	cfu/i00ml	-	-	*
		<1	<1	<1
Fecal Streptococcus	cfu/100ml	38	<1	<1
Molds	cfu/1 mL	6	<1	<1
Yeast	cfu∕imL	167	<1	<1
Iron Reducing Bacteria	org/1 mL	8	<0.3	<0.3
Sulfate Reducing Bacteria	org/1 mL	46	4	0.4
Sulfite Reducing Bacteria	org/1 mL	>110	<0.3	0.4
Thiosulfate Reducing Bacteria	org/1 mL	>110	110	15
Iron Oxidizing Bacteria		>110	0.4	0.9
			t i	
Plant Operations				
Person hours to operate plant per w	veelt		14	
T&O problems			00	
Hardness	high		-	
	low		-	
			2	
Recycel Filter Backwash			?	
			•	
	_		?	
Distribution system flushing progra	<u>an</u>			
Storage	тЭ		78	
Storage Average Daily Production	ጠ3 ጠ3		78 32	
Storage Average Daily Production	ጠ3 ጠ3		78	
Storage Average Daily Production Ave. Theoretical Hydraulic Detentio	ጠ3 ጠ3	RWR/A#	78 32 58.5	OCI/TWR
Storage Average Daily Production Ave. Theoretical Hydraulic Detentio Treatment	ጠ3 ጠ3	RWR/AP	78 32	OCI/TWR
Storage Average Daily Production Ave. Theoretical Hydraulic Detentio	ጠ3 ጠ3		78 32 58.5 t/CgA/Flc/Sd/Rflt/Na	OCI/TWR
Storage Average Daily Production Ave. Theoretical Hydranlic Detentio Treatment Weekly Sampling Routine free C12	ጠ3 ጠ3		78 32 58.5 <u>//CRA/Fic/Sd/Rfli/Nar</u> Treated 7	OCI/TWR
Storage Average Daily Production Ave, Theoretical Hydraniic Detention Treatment Weekby <u>Samphing Routine</u> free C12 total C12	ጠ3 ጠ3		78 32 58.5 CC <u>RA/Flc/Sd/Rflt/Ner</u> Treated 7 7	OCI/TWR
Storage Average Daily Production. Ave. Theoretical Hydranlic Detention Treatment Weekly Sampling Routing free C12 total C12 unbidity	ጠ3 ጠ3		78 32 58.5 // <u>CRA/Flc/Sd/Rfti/Ner</u> /Trented 7 7 7	OCI/TWR
Storage Average Daily Production Ave. Theoretical Hydranlic Detention Treatment Week'n Samphing Routine free Cl2 total Cl2 purbidaty temperature	ጠ3 ጠ3		78 32 58.5 7. <b>Treated</b> 7 7 7 7 7	OCI/TWR
Storage Average Daily Production Ave. Theoretical Hydranhic Detention Treatment Weekly Samphing Routine free C12 total C12 narbidaty kemperature pH	ጠ3 ጠ3		78 32 58.5 // <u>CRA/Flc/Sd/Rfti/Ner</u> /Trented 7 7 7	OCI/TWR
Storage Average Daily Production. Ave. Theoretical Hydranlic Detention Treatment Weekly Sampling Routing free C12 total C12 unbidity temperature pH Fortide	ጠ3 ጠ3		78 32 58.5 7. <b>Treated</b> 7 7 7 7 7	OCITWR
Storage Average Daily Production Ave. Theoretical Hydramic Detention Treatment Weekby Samphing Routine free C12 total C12 total C12 turbidity temperature pH Floride Color	ጠ3 ጠ3		78 32 58.5 7. <b>Treated</b> 7 7 7 7 7	OCI/TWR
Storage Average Daily Production Ave. Theoretical Hydranhic Detention Prestment Weekly Samphing Routine free C12 cotal C12 artivitäty temperature oft Floride Color Hardness	ጠ3 ጠ3		78 32 58.5 Treated 7 7 7 7 7 7 7 7 - -	OCI/TWR
Storage Average Daily Production. Ave. Theoretical Hydranlic Detention Treatment Weekly Sampling Routine free C12 total C12 narbidity temperature pH Floride Color Hardness Mn.	ጠ3 ጠ3		78 32 58.5 Treated 7 7 7 7 7 7 7 7 7 1 1	DCITWR
Storage Average Daily Production Ave. Theoretical Hydranbic Detention Treatment Weekby <u>Samphing Routine</u> free C12 could C12 unbidaty imperature opti Floride Color Hardness Mn. Fe	ጠ3 ጠ3		78 32 58.5 Treated 7 7 7 7 7 7 7 7 - -	OCI/TWR
Storage Average Daily Production Ave. Theoretical Hydranbic Detention Preatment Weekby <u>Samphing Routine</u> free C12 could C12 unbidaty imperature opti Floride Color Hardness Mn. Fe	ጠ3 ጠ3		78 32 58.5 Treated 7 7 7 7 7 7 7 7 7 1 1	OCITWR
Storage Average Daily Production. Ave. Theoretical Hydraulic Detention Treatment Weekly Samphing Routine free C12 coal C12 authidaty emperature off Floride Color -flardness Mn. Fe Alkalinity	m3 m3 on, hr.		78 32 58.5 Treated 7 7 7 7 7 7 7 7 7 1 1	OCITWR
Storage Average Daily Production Ave. Theoretical Hydranbic Detention Preatment Weekby <u>Samphing Routine</u> free C12 could C12 unbidity temperature opti Floride Color Hardness Mn. Fe Alkalinity Microbial	m3 m3 on, hr.		78 32 58.5 Treated 7 7 7 7 7 7 7 7 7 1 1	OC/TWR
Storage Average Daily Production Ave. Theoretical Hydranhic Detention Prestment Weekly Samphing Routine free C12 cotal C12 autividity emperature off Floride Color Hardness Van Fe Aklabinity Microbial Chemical Dooing and Operating Sto	m3 m3 on, hr.	Raw	78 32 58.5 Treated 7 7 7 7 7 7 7 7 7 1 1	OCI/TWR
Storage Average Daily Production Ave. Theoretical Hydranhic Detention Prestment Weekly Samphing Routine free C12 cotal C12 autividity emperature off Floride Color Hardness Van Fe Aklabinity Microbial Chemical Dooing and Operating Sto	m3 m3 on, hr. per month wergy	Raw	78 32 58.5 Treated 7 7 7 7 7 7 7 1 1 1 1	OCITWR
Storage Average Daily Production Ave. Theoretical Hydranhic Detention Prestment Weekly Samphing Routine free C12 cotal C12 autividity emperature off Floride Color Hardness Van Fe Aklabinity Microbial Chemical Dooing and Operating Sto	m3 m3 on, hr. <u>per month</u> <u>wesy</u> current low	Raw	78 32 58.5 Trented 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	OCITWR
Storage Average Daily Production Ave. Theoretical Hydranhic Detention Prestment Weekly Samphing Routine free C12 cotal C12 autividity emperature off Floride Color Hardness Van Fe Aklabinity Microbial Chemical Dooing and Operating Sto	m3 m3 on, hr. per month Wegy current low high	Raw	78 32 58.5 Treated 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	OCITWR
Storage Average Daily Production Ave. Theoretical Hydranhic Detention Treatment Weekly Samphing Routine free C12 total C12 Darbidaty Lemperature pH Floride Color Hardness	m3 m3 on, hr.	Raw	78 32 58.5 Trented 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Storage Average Daily Production Ave. Theoretical Hydranbic Detention Treatment Weekby Samphing Routing free C12 total C12 turbidaty temperature pHI Floride Color Hardness Mn. Fe Alkalimity Microbial Chemical Doging and Operating So Coagulanus	m3 m3 on, hr. <u>per month</u> wery current low high type adjustment	Raw	78 32 58.5 Treated 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Storage Average Daily Production Ave. Theoretical Hydranlic Detention Preatment Weekby Samphing Routing free C12 could C12 urbidity could C12 urbidity could C12 urbidity could C12 urbidity could C12 urbidity could C12 urbidity could C12 urbidity Free Alkalinity Microbial Chemical Doging and Operating So Coagulants	m3 m3 on, hr. <u>wermonth</u> <u>wersy</u> current low high type adjustment current	Raw	78 32 58.5 Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Storage Average Daily Production Ave. Theoretical Hydranhic Detention Prestment Weekly Samphing Routine free C12 cotal C12 autividity emperature off Floride Color Hardness Van Fe Aklabinity Microbial Chemical Dooing and Operating Sto	m3 m3 on, hr. <u>ber month</u> <u>wery</u> current low high cype adjustment current low	Raw	78 32 58.5 Trented 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Storage Average Daily Production Ave. Theoretical Hydranlic Detention Preatment Weekby Samphing Routing free C12 could C12 urbidity could C12 urbidity could C12 urbidity could C12 urbidity could C12 urbidity could C12 urbidity could C12 urbidity Free Alkalinity Microbial Chemical Doging and Operating So Coagulants	m3 m3 on, hr. <u>per month</u> <u>wery</u> current low high type adjustment current low bigh	Raw	78 32 58.5 Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Storage Average Daily Production Ave. Theoretical Hydranlic Detention Preatment Weekby Samphing Routing free C12 could C12 urbidity could C12 urbidity could C12 urbidity could C12 urbidity could C12 urbidity could C12 urbidity could C12 urbidity Free Alkalinity Microbial Chemical Doging and Operating So Coagulants	m3 m3 on, hr. <u>wermonth</u> <u>wersy</u> current low high type adjustment current low high type	Raw	78 32 58.5 Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Storage Average Daily Production Ave. Theoretical Hydranbic Detention Treatment Weekby Samphing Routing free C12 could C12 untridity comperature pH Floride Color Hardness Min Fe Alkalimity Microbial Chemical Dosing and Operating Str Coagulants	m3 m3 on, hr. <u>westy</u> current low high type adjustment tow bigh type adjustment	Raw	78 32 58.5 7/CRA/FI2/Sd/RfI/Nas 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Storage Average Daily Production Ave. Theoretical Hydranlic Detention Preatment Weekby Samphing Routing free C12 could C12 aurbidity temperature off Floride Color Hardness Win Fe Alkalimity <u>Vicrobial</u> <u>Chemical Doging and Operating So</u> Coagulants	m3 m3 on, hr. per month werky current low high type adjustment current iow bigh type adjustment current	Raw	78 32 58.5 Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Storage Average Daily Production Ave. Theoretical Hydranbic Detention Treatment Weekby Samphing Routing free C12 total C12 tot	m3 m3 on, hr.	Raw	78 32 58.5 7/CRA/FI2/Sd/RfI/Nas 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Storage Average Daily Production Ave. Theoretical Hydranbic Detention Treatment Weekby Samphing Routing free C12 total C12 tot	m3 m3 on, hr. <u>stery</u> current low high type adjustment current low high type adjustment current low high type	Raw	78 32 58.5 7Created 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Storage Average Daily Production Ave. Theoretical Hydranlic Detention Treatment Weekby Sampling Routine free C12 total C12 turbidity temperature off Floride Color Hardness Win Fe Alkalimity <u>Veferobial</u> <u>Chemical Doging and Operating So</u> Coagulants	m3 m3 on, hr. <u>per month</u> <u>werent</u> low high type adjustment current low bigh type adjustment low high type adjustment	Raw	78 32 58.5 <i>UCRA/FIJ/Sd/Rftl/Nia</i> Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Storage Average Daily Production Ave. Theoretical Hydranbic Detention Treatment Weekby Samphing Routing free C12 total C12 tot	m3 m3 on, hr.	Raw	78 32 58.5 7/CRA/FI2/Sd/RfI/Nar 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Storage Average Daily Production Ave. Theoretical Hydranbic Detention Preatment Weekby Samphing Routine free C12 coal C12 untridaty temperature pH Floride Color Hardness Mn. Fe Alkalimity <u>Microbial</u> <u>Chemical Dosing and Operating So</u> Coagulants Polymer Soda Ash Disinfection.	m3 m3 on, hr. <u>wesy</u> current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	Raw	78 32 58.5 <b>//CRA/FI//Sd/Rflu/Nis</b> <b>Trented</b> 7 7 7 7 7 7 7 7 7 7 7 7 7	
Storage Average Daily Production Ave. Theoretical Hydranlic Detention Treatment Weekby Sampling Routine free C12 total C12 turbidity Lemperature off Free C12 Color Hardness With Free Alkalimity <u>Veferobial</u> <u>Chemical Doging and Operating So</u> Coagulants Polymer Soda Ash Disinfection	m3 m3 on, hr. <u>per month</u> <u>werent</u> low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type	Raw	78 32 58.5 <i>ICRA/FIJ/Sd/Rftt/Nat</i> 7 7 7 7 7 7 7 7 7 7 7 7 7	
Storage Average Daily Production Ave. Theoretical Hydranlic Detention Treatment Weekby Sampling Routine free C12 total C12 turbidity Lemperature off Free C12 Color Hardness With Free Alkalimity <u>Veferobial</u> <u>Chemical Doging and Operating So</u> Coagulants Polymer Soda Ash Disinfection	m3 m3 on, hr. <u>wesy</u> current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low	Raw	78 32 58.5 //CRA/FIe/Sd/Rflu/Nist Trented 7 7 7 7 7 7 7 7 7 7 7 7 7	
Storage Average Daily Production Ave. Theoretical Hydranlic Detention Treatment Weekby Sampling Routine free C12 total C12 turbidity Lemperature off Free C12 Color Hardness With Free Alkalimity <u>Veferobial</u> <u>Chemical Doging and Operating So</u> Coagulants Polymer Soda Ash Disinfection	m3 m3 on, hr. <u>per month</u> <u>werent</u> low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type	Raw	78 32 58.5 <i>ICRA/FIJ/Sd/Rftt/Nat</i> 7 7 7 7 7 7 7 7 7 7 7 7 7	
Storage Average Daily Production Ave. Theoretical Hydranlic Detention Treatment Weekby Sampling Routine free C12 total C12 turbidity Lemperature off Free C12 Color Hardness With Free Alkalimity <u>Veferobial</u> <u>Chemical Doging and Operating So</u> Coagulants Polymer Soda Ash Disinfection	m3 m3 on, hr. <u>ber month</u> <u>westy</u> current low high type adjustment current low high type adjustment current low high type adjustment current low high type adjustment current low high type	Raw	78 32 58.5 //CRA/FIe/Sd/Rfli/Nas Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Storage Average Daily Production Ave. Theoretical Hydraniic Detention Treatment Weekby Samphing Routine free C12 total C12 turbidity Lemperature off Free C12 Color Hardness With Free Alkalimity <u>Veferobial</u> <u>Chemical Doging and Operating So</u> Coagulants Polymer Soda Ash Disinfection	m3 m3 on, hr. <u>ber month</u> <u>bery</u> current low high type adjustment current low high type adjustment current low high type adjustment current low high type current low high type current low high type current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current current	Raw	78 32 58.5 //CRA/FI//Sd/Rfl//Nat Trented 7 7 7 7 7 7 7 7 7 7 7 7 7	
Storage Average Daily Production Ave. Theoretical Hydranbic Detention Treatment Weekby Samphing Routing free C12 Local C12 Loc	m3 m3 on, hr.	Raw	78 32 58.5 Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Storage Average Daily Production Ave. Theoretical Hydranbic Detention Preatment Weekby Samphing Routine free C12 could C12 untridiky temperature pH Floride Color Hardness Mn Fe Alkalimity <u>Microbial</u> <u>Chemical Dooing and Operating So</u> Coagulants Polymer Soda Ash Disinfection	m3 m3 on, hr.	Raw	78 32 58.5 //CRA/FI//Sd/Rfli/Nas Trented 7 7 7 7 7 7 7 1 1 4 7 7 7 7 7 7 7 7 7 7 7 7 7	
Storage Average Daily Production Ave. Theoretical Hydranbic Detention Treatment Weekby Samphing Routing free C12 Lotal C12 Lot	m3 m3 on, hr.	Raw	78 32 58.5 <i>UCRA/FIJ/Sd/Rfli/Nat</i> Treated 7 7 7 7 7 7 1 1 4 7 7 7 7 7 7 7 7 7 7 7 7 7	
Storage Average Daily Production Ave. Theoretical Hydranbic Detention Treatment Weekby Samphing Routing free C12 coal C12 untridity comperature pH Floride Color Hardness Min Fe Alkalimity Microbial Chemical Dosing and Operating So Coagulants Polymer Soda Ash Disinfection	m3 m3 on, hr.	Raw	78 32 58.5 //CRA/FIe/Sd/Rfli/Nas Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Storage Average Daily Production Ave. Theoretical Hydraniic Detention Preatment Weekby Samphing Routing free C12 could C12 untvidity Lamperature pH Floride Color Hardness Mn Fe Alkalinity <u>Microbial</u> <u>Chemical Dooing and Operating Sp</u> Coagulants Polymer Soda Ash Distinfection	m3 m3 on, hr.	Raw	78 32 58.5 <i>UCRA/FIJ/Sd/Rfli/Nat</i> Treated 7 7 7 7 7 7 1 1 4 7 7 7 7 7 7 7 7 7 7 7 7 7	
Storage Average Daily Production Ave. Theoretical Hydranbic Detention Ave. Theoretical Hydranbic Detention Treatment Weekly Sampling Routing free C12 cotal C12 turbidity emperature off Floride Color tardness Wa Floride Color tardness Wa Floride Color tardness Wa Floride Color tardness Wa Floride Color tardness Wa Floride Color tardness Wa Floride Color tardness Wa Floride Color tardness Wa Floride Color tardness Wa Floride Color tardness Wa Floride Color tardness Wa Floride Color tardness Sola Ash Distinfection	m3 m3 on, hr.	Raw	78 32 58.5 //CRA/FIe/Sd/Rfli/Nas Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	
Storage Average Daily Production Ave. Theoretical Hydranlic Detention Preatment Weekby Sampling Routing free C12 coal C12 unrbidity emperature off Forde Color fardness Ma Fe Alkalinity Microbial <u>Chemical Dosing and Operating Str</u> Coagulants Polymer Soda Ash Disinfection	m3 m3 on, hr.	Raw	78 32 58.5 //CRA/FIe/Sd/Rfli/Nas Treated 7 7 7 7 7 7 7 7 7 7 7 7 7	

			WORSLEY 19-Jul-94	
Type of Sample		Raw	Treated	Distributed
Temperature	deg C	17.8	16.4	11
pH		7.8	7.7	7.6
Conductivity	Miro ohma/c	305	400	405
Turbidity	NTU	4.5	0.63	0.56
Total Chlorine	mg/L	NA	0.82	0.63
Free Chlorine	mg/L	NA	0.47	0.57
Color	TCU	25	0	0
Ammonia	mg/L	0.92	·	-
Odour Type		musty	musty + chlorine	musty
Odour Intensity	out of 3	2	1	0.5
Flavour Profile Flavour Comment	out of 10	NA	5.5	5.5
Pievour Comment		1		1
THMs	ug/L		180	290
112400		Ē		
Total Coliforms	cfu/100ml	15	<1	<1
Fecal Coliforms	cfu/100ml	24	<1	<1
Heterotropic Plate Count (48 hr)	cfu/1 mL	12	1	-
Heterotropic Plate Count (7 days)		129	9	37
Klebuiella	cfu/100ml	21	<1	<1
Fecal Streptococcus	cfu/100ml	<1	<1	<1
Molds	cfu/l mL	3	<1	<1
Yeast	cfu/1 mL	113	0	<1
Iron Reducing Bacteria	org/1 mL	>110	<0.3	<0.3
Sulfate Reducing Bacteria	org/i mL	24	0.9	0.9
Sulfite Reducing Bacteria	org/1 mL	4	<0.3	0.4
Thiosulfate Reducing Bacteria	org/1 mL	>110	2	2
Iron Oxidizing Bacteria	org/1 mL	4	<0.3	0.3
Plant Operations		+	I	1
Person hours to operate plant per v	veck		14	
T & O problems				
Hardness	high		•	
	low	-	-	
			+	
Recycel Filter Backwash			no	
Distribution system flushing progra	am.		yes	
Storage	<u>m3</u>		418	
Average Daily Production	m3		77	
Ave. Theoretical Hydraulic Detenti			130_3	
	•			
Treatment			n/CgA/Ch/pH/Rft/N	OCI/TWR
Weekly Sampling Routine		Raw	Treated	
free Cl2			17	
total Cl2			7	
tarbidity		7	7	
temperature			7	
pH Floride		1	ľ	
		1	1	
Color			-	
Color Hardness		- A.		
Color		- 6	× .	
Color Hardness Mn Fe		- 6		
Color Hardness Mn		- 6	-	
Color Hardness Mn Fe	per month	0	4	
Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St		6		
Color Hardness Mn Alkakivity Microbial	rategy current		4	
Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St	rategy current low		25	
Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St	rategy current low high		25 100	
Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St	ratezy current low high type		25 100 atom	
Color Hardness Mn Fe Alkaknuty Microbial <u>Chemical Dosing and Operating St</u> Cogulants	rategy current low high type adjustment		25 100 atom based on turbidity	
Color Hardness Mn Fe Alkalimity Microbial Chemical Dosing and Operating St	rategy current low high type adjustment current		25 100 alum based on turbidity 0.24	
Color Hardness Mn Fe Alkaknuty Microbial <u>Chemical Dosing and Operating St</u> Cogulants	ratesy current low high type adjustment current low		25 100 alum based on turbidity 0.24 0.11	
Color Hardness Mn Fe Alkaknuty Microbial <u>Chemical Dosing and Operating St</u> Cogulants	ratesy current low high type adjustment current low high		25 100 ahum based on turbidity 0.24 0.11 0.25	
Color Hardness Mn Fe Alkaknuty Microbial <u>Chemical Dosing and Operating St</u> Cogulants	ratesy current low high type adjustment current low		25 100 alum based on turbidity 0.24 0.11	
Color Hardness Mn Fe Alkaknuty Microbial <u>Chemical Dosing and Operating St</u> Cogulants	ratesy current low high type adjustment current low high type		25 100 akun based on turbidity 0.24 0.11 0.25 aeparan with atum 75	
Color Hardness Mn Fe Alkalinity Microbial <u>Chemical Dosing and Operating St</u> Coagulants Polymer	ratery current low high type adjustment low high type adjustment current low		25 100 alum based on turbidity 0.24 0.11 0.25 separan with alum 75 \$0	
Color Hardness Mn Fe Alkalinity Microbial <u>Chemical Dosing and Operating St</u> Coagulants Polymer	ratery current low high type adjustment current low high type adjustment current low high		25 100 aium based on turbidity 0.24 0.11 0.25 separan with aium 75 50 100	
Color Hardness Mn Fe Alkabinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coggulants Polymer Soda Ash	ratesy current low high type adjustment current low high type adjustment low high sdjustment		25 100 atom based on turbidity 0.24 0.11 0.25 sepsen with atom 75 50 100 with atom	
Color Hardness Mn Fe Alkalinity Microbial <u>Chemical Dosing and Operating St</u> Coagulants Polymer	Telesy current low high type adjustment current low high adjustment current low high adjustment current		25 100 atom based on turbidity 0.24 0.11 0.25 separan with atom 75 50 100 with shum 7	
Color Hardness Mn Fe Alkabinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coggulants Polymer Soda Ash	Telesy current low high type adjustment current low high type adjustment current low high adjustment current low		25 100 atom. based on turbidity 0.24 0.11 0.25 arparan. with atom 75 50 100 with atom 7 2	
Color Hardness Mn Fe Alkabinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coggulants Polymer Soda Ash	retery current low high type adjustment current low djustment current low high high high high high high high hig		25 100 atom based on turbidity 0.24 0.11 0.25 separan with atom 75 50 100 with atom 7 2 11	
Color Hardness Mn Fe Alkabinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coggulants Polymer Soda Ash	Telesy current low high type adjustment current low high adjustment current low high adjustment current low high type type type		25 100 atom based on turbidity 0.24 0.11 0.25 separan with atom 75 50 100 with atom 7 2 11 NaOCI	
Color Hardness Mn Fe Alkelmity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coagulants Polymer Soda Ash Disinfection	retery current low high type adjustment current low high type adjustment current low high djustment current low high type adjustment		25 100 atom. based on turbidity 0.24 0.11 0.25 separan. with atom 75 50 100 with atom 7 2 11 NaOCI based on residual	
Color Hardness Mn Fe Alkabinity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coggulants Polymer Soda Ash	Telesy current low high type adjustment current low djustment current low high sdjustment current low high high sdjustment current low high current current low		25 100 atom based on turbidity 0.24 0.11 0.25 separan with atom 75 50 100 with atom 7 2 11 NaOCI based on residual 7	
Color Hardness Mn Fe Alkelmity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coagulants Polymer Soda Ash Disinfection	retery current low high type seljustment current low high adjustment current low high adjustment current low high bigh bigh bigh bigh bigh bigh bigh		25 100 atum based on turbidity 0.24 0.24 0.11 0.25 aeparan with atum 75 50 100 with atum 7 2 11 NaOCI based on residual ?	
Color Hardness Mn Fe Alkelmity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coagulants Polymer Soda Ash Disinfection	retery current low high type adjustment current low high type adjustment current low high adjustment current low high type adjustment current low high how high how high how high how high how high how high how high how high how high how high how high how high how high how high how high how high how high how high how high how high how high how high how high how high how high how high how high how how high how high how high how high how high how high how high how high how high how high how high how high how how high how how high how high how high how how high how how high how how how high how how how how how how how how how ho		25 100 atom. based on turbidity 0.24 0.11 0.25 separan. with atom 75 50 100 with atom 7 2 11 NaOCI based on residual ? ?	
Color Hardness Mn Fe Alkelmity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coagulants Polymer Soda Ash Disinfection	Telesy current low high type adjustment current low djustment current low high sdjustment current low high type adjustment current low high type		25 100 atum based on turbidity 0.24 0.24 0.11 0.25 aeparan with atum 75 50 100 with atum 7 2 11 NaOCI based on residual ?	
Color Hardness Mn Fe Alkelmity <u>Microbial</u> <u>Chemical Dosing and Operating St</u> Coagulants Polymer Soda Ash Disinfection	retery current low high type adjustment current low high type adjustment current low high adjustment current low high type adjustment current low high how high how high how high how high how high how high how high how high how high how high how high how high how high how high how high how high how high how high how high how high how high how high how high how high how high how high how high how how high how high how high how high how high how high how high how high how high how high how high how high how how high how how high how high how high how how high how how high how how how high how how how how how how how how how ho		25 100 atom based on turbidity 0.24 0.11 0.25 separan with atom 75 50 100 with atom 7 2 11 NaOCI based on residual ? ?	
Color Hardness Mn Fe Alkalinity <u>Microbial</u> <u>Chemical Dosing and Operating. St</u> Coagulants Polymer Soda Ash Disinfection	restery current low high type seljustment current low high digh type adjustment current low high dijustment current low high type adjustment current low high type adjustment current low		25 100 atom based on turbidity 0.24 0.11 0.25 separan with atom 75 50 100 with atom 7 2 11 NaOCI based on residual ? ?	
Color Hardness Mn Fe Alkalinity <u>Microbial</u> <u>Chemical Dosing and Operating. St</u> Coagulants Polymer Soda Ash Disinfection	Terrent Low Low Low Low Low Low Lype adjustment current Low Ligh adjustment current Low Ligh adjustment current Low Low Low Low Low Ligh adjustment current Low Low Low Low Low Low Low Low		25 100 airom based on turbidity 0.24 0.11 0.25 separan with alum 75 50 100 with alum 7 2 11 NaOCI based on residual ? ? AC filter none	
Color Hardness Mn Fe Alkalinity <u>Microbial</u> <u>Chemical Dosing and Operating. St</u> Coagulants Polymer Soda Ash Disinfection	Telesy current low high type adjustment current low high type adjustment current low high high high type adjustment current low high type adjustment type adjustment current low		25 100 airom based on turbidity 0.24 0.11 0.25 separan with alum 75 50 100 with alum 7 2 11 NaOCI based on residual ? ? AC filter none	

Table 4: Summary of Turbidity Data from Site Visits

RA		Ave	0.4		0.2	0.2	3.8		TREA'	Ave	0.4		0.2		1.6		DISTRIE	Ave	0.5	,	0.4	
		Number of Sites	8	0	\$	1	2	0		Number of	Sites 3	0	2	0	1	0		Number of	0	0	S	
		Z	All Sites	Cities	Towns	Vilages	Hamlets	Water Points		Z	All Sites	Cities	Тоwпя	Vilages	Hamlets	Water Points		Z	AJI Sites	Cities	Towna	
		0	na	na	na	na	na	na		0	17%	50%	7%		10%	100%		0	15%	50%	7%	
		number > 1 NTU	na	па	па	na	па	na		number	> 1 NTU 5	-	1		-	2		number > 1 NTU	4	1	1	
	Turbidity	lower 95% C. I.	0.25	ï	0.11	i.	0.38		3R	Turbidity lower	95% C. I. 0.05	,	0.04		0.05		TER	lower 95% C. I.	0.06	÷	0.06	
RAW WATER		upper 95% C. I.	164		399		70		TREATED WATER	upper	95% C. I. 3.0	•	1.7		3.3		DISTRIBUTED WATER	upper 95% C. I.	2.3	i	1.3	
RA		Ave	6.4	9.6	6.5	•	5.2	10.9	TRE/	Ave	0.4	0.5	0.3	,	0.4	1.9	DISTRI	Ave	0.4	0.5	0.3	
		Number of Sites	30	2	15	0	11	2		Number of	Sites 29	2	15	0	10	2		Number of Sites	27	2	14	
		~	All Sites	Cities	Towns	Vilages	Hamlets	Water Points			All Sites	Cities	Towns	Vilages	Hamlets	Water Points			All Sites	Cities	Towns	
		0	па	na	na	па	na	na		0	19%	50%	%9		18%	100%		0	17%	\$036	11%	
		number > 1 NTU	na	па	na	na	па	na		number	> 1 NTU 6	-	1		7	2		number > 1 NTU	9	7	5	
	Turbidity	lower 95% C. I.	0.08		0.02	,	0.45		3R	Turbidity lower	95% C. I. 0.05		0.04	•	0.06		TER	lower 95% C. L.	0.06	ł.	0.04	
RAW WATER		upper 95% C. I.	176		329	,	55		<b>VIED WATER</b>	upper	95% C. I. 3.2		1.7	•	4.0		DISTRIBUTED WATER	upper 95% C. I.	2.9	x	2.2	
RA		Ave	3.6	9.6	2.8	0.2	4.9	10.9	TREATE	Ave	0.4	0.5	0.3		0.5	1.9	DISTRI	Ave	0.4	0.5	0.3	
		Number of Sites	38	7	20	1	13	2		Number of	32	5	17	0	п	2		Number of Sites	36	2	19	
			All Sites	Cities	Towns	Vilages	Hamlets	Water Points			All Sites	Cities	Towns	Vilages	Hamlets	Water Points			All Sites	Cities	Towns	

**GROUND WATER SITES VISITED** 

na na na na 0 RAW WATER Turbidity b upper lower number 95% C. I. 95% C. I. > 1 NTU 22 0.01 na na na 0.01 ,

na na

,

- na	- 18	TREATED WATER	Turbidity	upper lower number 95% C. I. 95% C. I. > 1 NTU	•	1	•	•	ч 1	•
3.8		TREAT		Ave 9.	0.4		0.2	·	1.6	
3	0			Number of Sites	3	0	3	0	1	0
Hamlets	Water Points			-	All Sites	Cities	Томпя	Vilages	Hamlets	Water Points

				DISTR	IBUTED W/	VATER			
						Turbidity			T
lower number 35% C. I. > 1 NTU	0		Number of Sites	Ave	upper lower 95% C. I. 95% C. I	lower 95% C. I.	> 1 NTU	0	1
	15%	All Sites	6	0.5	6	0.03	2	22%	T
	50%	Cities	0	,	•	÷		i.	
	7%	Towns	s	0.4	45	0.00	1	20%	
		Vilages		0.2		з	0	0%	
	18%	Hamleta	2	13	3-	•	1	\$03%	
		Water Points	0				,	,	_

4.6

0.5

п 0

Hamlets Water Points

MINA T TAID II	4				*	TOON
		DISTR	ISTRIBUTED WA	ATER		
				Turbidity		
	Number of Sites	Ave	upper 95% C. L	upper lower number 95% C.L. 95% C.L. > 1 NTU	number > 1 NTU	0
All Sites	36	0.4	2.9	0.06	9	%L1
Cities	2	0.5	8	a.	-	\$605
Towns	19	0.3	2.2	0.04	5	11%
Vilages	1	0.2	X	·	0	960
Hamleta	13	0.6	4.8	0.07	3	33%
Water Points	0	•	4			•

			Total	Coliforms (cfu/	100 mL)			Fecal C	oliforms (cfu/10	0 mL)	
		Number of Samples	Number >1	mean of Samples > 1	Number Uncountable	Maximum Value	Number of Samples	Number >1	mean of Samples > 1	Number Uncountable	Maximum Value
All Sites	Raw	36	26	20	8	2525	37	19	4	0	72
	Treated	32	1	198	0	198	33	0	na	0	0
	Distribution	35	1	82	0	82	36	0	na	0	0
Towns	Raw	18	11	11	5	1063	20	10	4	0	50
	Treated	16	0	na	0	0	17	0	na	0	0
	Distribution	18	0	<u>53</u>	0	0	20	0	112	0	0
Villages	Raw	1	0	па	0	0	1	0	na	0	0
	Treated	0	0	па	0	0	0	0	na	0	0
	Distribution	1	1	82	0	82	1	D	na	0	0
Hamieta	Raw	14	12	16	3	699	13	7	3	0	24
	Treated	12	D	กล	0	0	12	D	na	0	D
	Distribution	14	0	na	0	0	13	0	na	0	0
Water Points	Raw	2	2	1704	0	2525	2	2	16	0	72
	Treated	2	1	198	0	198	2	0	na	0	0
	Distribution	0	0	na	0	0	0	0	na	0	0
Cities	Raw	1	1	1	0	1	1	0	na	0	0
	Treated	2	0	na	0	0	2	0	80	0	0
	Distribution	2	0	na	0	0	2	0	na	0	0

### Surface Water Sources

			Total	Coliforms (cfu/	100 mL)				Fecal C	biforms (cfu/10	0 mL)	
		Number	Number >1	mean of	Number	Maximum		Number	Number >1	mean of	Number	Maximum
		of Samples		Samples > 1	Uncountable	Value	01	f Samples		Samples > 1	Uncountable	Value
All Sites	Raw	28	26	20	8	2525		29	19	4	0	72
	Treated	28	1	198	0	198		29	0	па	0	0
	Distribution	26	0	na	0	0		27	0	na	0	0
Towns	Raw	13	11	11	5	1063		15	10	4	0	50
	Treated	13	0	па	0	0		14	0	na	0	0
	Distribution	13	0	па	0	0		15	0	na	0	0
Villages	Raw	0	0	па	0	0		0	0	па	0	D
	Treated	0	0	na	0	0		0	0	па	0	0
	Distribution	0	0	na	0	0		0	0	na	0	D
Hamlets	Raw	12	12	16	3	699		11	7	3	0	24
	Treated	11	0	па	0	0		11	0	na	0	0
	Distribution	11	0	па	0	0		10	0	па	0	0
Water Points	Raw	2	2	1704	0	2525		2	2	16	0	72
	Treated	2	1	198	0	198		2	0	na	0	0
	Distribution	0	0	na	0	0		0	0	na	0	0
Cities	Raw	1	1	1	0	1		1	0	na	0	0
	Treated	2	0	na	0	0		2	0	na	0	0
	Distribution	2	0	<u>na</u>	0	0		2	0	na	0	0

		Т	Total	Coliforms (ctu/	100 mL)			Fecal Co	biforms (cfu/10	0 mL)	
		Number	Number >1	mean of	Number	Maximum	Number	Number >1	mean of	Number	Maximum
		of Samples		Samples > 1	Uncountable	Value	of Samples		Samples > 1	Uncountable	Value
All Sites	Raw	8	0	na	0	0	8	0	na	0	0
	Treated	4	0	na	0	0	4	0	na	D	0
	Distribution	9	1	82	0	82	9	0	na	0	0
Towns	Raw	5	0	na	0	o	5	0	па	0	0
	Treated	3	0	na	0	0	3	0	na	0	0
	Distribution	5	0	na	0	Q	5	0	na	0	0
Villages	Raw	1	0	na	0	o	1	0	na	0	0
_	Treated	0	0	na	0	0	0	O	na	0	0
	Distribution	1	1	82	0	82	1	0	<u>na</u>	0	0
Hamlets	Raw	2	0	na	0	0	2	D	na	0	0
	Treated	1	0	na	0	0	1	0	na	0	0
	Distribution	3	0	пя	0	0	3	0	na	0	0
Water Points	Raw	0	0	na	0	0	0	0	11.8	0	0
	Treated	0	0	na	0	0	0	D	na	0	0
	Distribution	0	0	na	0	0	0	0	na	0	0
Cities	Raw	0	0	na	0	0	0	0	na	0	0
l .	Treated	0	0	na	0	0	0	0	TR	0	0
	Distribution	0	0	na	0	0	0	0	пa	0	0

						All Wate	er	Sources				
				Plate Count (	48 hr. cfu/1 mL)				Heterotrophic	Plate Count (7	days, cfu/1 mL	)
		Number of Samples	Number >1	mean of Samples > 1	Number Uncountable	Maximum Value		Number of Samples	Number >1	mean of Samples > 1	Number Uncountable	Maximum Value
All Sites	Raw	37	35	57	1	2317		34	33	210	1	3567
	Treated	34	19	3	0	774		31	25	5	0	1175
	Distribution	36	26	5	0	390		32	27	44	0	1550
Towns	Raw	20	18	33	1	339		17	16	269	1	2800
	Treated	18	12	2	0	126		16	14	4	0	111
	Distribution	20	15	4	0	69		17	15	47	0	1158
Villages	Raw	0	a	na	0	٥		1	1	67	D	67
-	Treated	0	0	na	0	0		0	0	na	0	0
	Distribution	1	1	10	0	10		1	1	17	0	17
Hamlets	Raw	13	13	72	0	1950		12	12	156	0	3233
	Treated	12	5	2	0	26		11	8	4	0	266
	Distribution	13	9	5	0	390		12	10	30	0	1300
Water Points	Raw	2	2	752	0	2317		2	2	985	0	3567
	Treated	2	1	774	0	774		2	2	178	0	1175
	Distribution	0	0	na	0	0		0	0	na	0	0
Cities	Raw	2	2	116	0	158		2	2	. 77	0	656
	Treated	2	1	2	0	2		2	1	0	0	0
	Distribution	2	1	2	0	2		2	1	1550	0	1550

#### Heterotrophic Plate Count (48 hr, cfu/1 mL) Heterotrophic Plate Count (7days, cfu/1 mL) Number Maximum Number Number Maximum Number >1 mean of Number Number >1 mean of Value of Samples Value 3567 of Samples Samples > 1 Uncountable Samples > 1 Uncountable All Sites Raw 25 Treated Distribution Towns Raw Treated Distribution Villages Raw na na Treated па na Distribution na na Hamlets Raw Treated Distribution Water Points Raw Treated Ó Q Distribution D na na 2 Cities Raw Treated 2 Distribution

		<del></del>				round W	at	er Sourc				
					48 hr. cfu/1 mL)			L			days, cfu/] mL	
		Number	Number >1	mean of	Number	Maximum		Number	Number >1	mean of	Number	Maximum
		of Samples		Samples > 1	Uncountable	Value		of Samples		Samples > 1	Uncountable	Value
All Sites	Raw	7	5	3	0	40		7	6	40	0	437
	Treated	4	1	2	0	2		4	3	7	0	33
	Distribution	9	5	10	0	182		7	6	16	D	253
Towns	Raw	5	3	1	0	3		4	3	17	D	52
	Treated	3	1	2	0	2		3	2	7	0	33
	Distribution	5	2	7	0	12		4	3	11	0	61
Villages	Raw	0	0	na	0	0		1	1	67	0	67
-	Treated	0	0	na	0	0		0	0	па	0	0
	Distribution	1	1	10	0	10		1	1	17	0	17
Hamlets	Raw	2	2	9	0	40		2	2	112	0	437
	Treated	1	0	na	0	0		1	1	9	0	9
	Distribution	3	2	16	0	182		2	2	26	0	253
Water Points	Raw	0	0	na	0	0		0	0	na	0	O
	Treated	0	0	na	0	0		0	0	na	0	0
	Distribution	0	0	na	0	0		0	0	na	0	0
Cities	Raw	0	0	na	0	0		0	D	pa	0	0
	Treated	0	0	na	0	0		0	0	08	0	D
	Distribution	0	0	na	0	0		0	0	na	0	D

#### Surface Water Sources

11

		1	KJ	ebsiella (cfu/10	DmL)			Fecal St	reptococcus (c	fu/100 mL)	
		Number of Samples	Number >1	mean of Samples > 1	Number Uncountable	Maximum Value	Number of Samples	Number >1	mean of Samples > 1	Number Uncountable	Maximum Value
All Sites	Raw	35	15	56	8	967	37	28	9	0	132
	Treated	32	2	37	0	79	34	3	2	0	3
	Distribution	33	2	18	0	41	36	5	1	0	2
Towns	Raw	18	6	22	4	348	20	14	11	0	132
	Treated	16	1	17	0	17	18	3	2	0	3
	Distribution	18	0	na	0	0	20	3	1	0	2
Villages	Raw	1	0	02	0	0	1	0	na	0	0
	Treated	0	0	na	0	0	0	0	па	0	0
	Distribution	1	1	8	٥	8	1	0	na	0	0
Hamlets	Raw	12	7	83	2	967	12	10	7	0	101
	Treated	12	0	na	0	0	12	0	na	0	0
	Distribution	12	1	41	0	41	13	2	1	0	1
Water Points	Raw	2	2	па	2	o	2	2	26	0	33
	Treated	2	1	79	0	79	2	0	па	0	0
	Distribution	0	0	па	0	D	0	0	na	0	0
Cities	Raw	2	0	па	0	0	2	2	3	0	18
	Treated	2	0	na	0	0	2	0	na	0	0
	Distribution	2	0	na	0	0	2	0	па	0	0

# Surface Water Sources

			Kle	ebsiella (cfu/10	0 mL)				Fecal St	reptococcus (c	fu/100 mL)	
		Number	Number >1	mean of	Number	Maximum		Number	Number >1	mean of	Number	Maximum
		of Samples		Samples > 1	Uncountable	Value		of Samples		Samples > 1	Uncountable	Value
All Sites	Raw	28	14	105	8	967	1	30	28	9	0	132
	Treated	28	2	37	0	79		30	3	2	0	3
	Distribution	25	1	41	0	41		28	5	1	0	2
Towns	Raw	13	5	348	4	348		15	14	11	0	132
	Treated	13	1	17	0	17		15	3	2	0	3
	Distribution	13	0	na	0	0		15	3	1	0	2
Villages	Raw	0	0	na	0	0		0	0	na	0	0
Ĩ	Treated	0	0	na	0	0	[	0	0	na	0	0
	Distribution	0	0	па	0	0		0	0	na	0	0
Hamlets	Raw	11	7	83	2	967	ŀ	11	10	7	0	101
	Treated	11	0	па	0	0		11	0	na	0	0
	Distribution	10	1	41	0	41		11	2	1	0	1
Water Points	Raw	2	2	na	2	0		2	2	26	0	33
	Treated	2	1	79	0	79		2	0	na	0	0
	Distribution	0	0	na	0	0		0	0	na	0	0
Cities	Raw	2	0	na	0	0		2	2	3	0	18
	Treated	2	0	na	0	0		2	0	na	0	D
	Distribution	2	0	na	0	0		2	0	па	0	0

			Kl	ebsiella (cfu/10	0 ml)				Fecal St	reptococcus (c	fu/100 mL)	
		Number	Number >1	mean of	Number	Maximum	1	Number	Number >1	mean of	Number	Maximum
		of Samples		Samples > 1	Uncountable	Value		of Samples		Samples > 1	Uncountable	Value
All Sites	Raw	7	1	1	0	1	]	7	0	na	0	D
	Treated	4	0	na	0	0		4	0	па	0	0
	Distribution	8	1	8	0	8		8	0	na	0	0
Towns	Raw	5	1	1	0	1		5	0	na	0	0
	Treated	3	0	na	0	0		3	0	na	0	0
	Distribution	5	0	na	0	0		5	0	na	0	0
Villages	Raw	1	0	па	0	0		1	0	na	0	0
	Treated	0	0	na	0	0		0	0	112	0	0
	Distribution	1	1	8	0	8		1	0	<u>na</u>	0	0
Hamlets	Raw	1	0	na	0	0		1	0	na	0	C
	Treated	1	0	na	0	0	- I	1	0	na	0	0
	Distribution	2	0	па	0	0	ļ	2	0	na	0	0
Water Points	Raw	0	0	па	0	0		0	0	na	0	0
	Treated	0	0	na	0	0	[	0	0	na	0	0
	Distribution	0	0	na	0	0	1	0	0	<u>na</u>	0	0
Cities	Raw	0	0	па	0	0		0	0	na	0	0
	Treated	0	0	<u>na</u>	0	0		0	0	na	0	0
1	Distribution	0	0	na	0	0	ĺ	0	0	па	0	0

						All Wat	er	Sources				
				Molds (cfu/1 n	nL)					Yeast (cfu/1 m	L)	
		Number of Samples	Number >1	mean of Samples > 1	Number Uncountable	Maximum Value		Number of Samples	Number >1	mean of Samples > 1	Number Uncountable	Maximum Value
All Sites	Raw	35	30	4	1	11		31	31	32	1	35
	Treated	32	10	1	0	3		32	11	5	0	31
	Distribution	32	7	1	0	2		32	17	2	3	30
Towns	Raw	18	15	5	0	11		16	16	30	0	30
	Treated	16	5	1	0	3		16	5	8	0	31
	Distribution	17	4	0	0	2		17	9	2	1	30
Villages	Raw	1	0	па	D	0		1	1	26	0	31
	Treated	0	0	na	0	0		0	0	na	0	0
	Distribution	1	1	2	0	1		1	1	3	0	3
Hamlets	Raw	12	11	2	0	7		10	10	40	1	22
	Treated	12	4	0	0	1		12	4	1	0	3
	Distribution	13	2	1	0	1		13	7	2	2	6
Water Points	Raw	2	2	2	1	2		2	2	23	0	35
	Treated	2	1	1	0	1		2	2	21	0	30
	Distribution	0	0	na	0	0		0	0	na.	0	0
Cities	Raw	2	2	20	0	10		2	2	38	0	12
	Treated	2	0	na	0	0		2	D	na	0	0
	Distribution	1	0	na	0	0		1	D	па	0	0

# Surface Water Sources

					S	urface W	at	er Sourc	es			
				Moids (cfu/l 1	nL)					Yeast (cfu/1 m	L)	
		Number of Samples	Number >1	mean of Samples > 1	Number Uncountable	Maximum Value		Number of Samples	Number >1	mean of Samples > 1	Number Uncountable	Maximum Value
All Sites	Raw	29	29	4	1	11		25	27	45	1	35
	Treated	29	9	1	0	3		29	9	7	0	31
	Distribution	26	5	1	0	2		26	12	3	3	30
Towns	Raw	14	14	5	0	11		13	13	55	0	30
	Treated	14	4	1	0	3		14	3	35	D	31
	Distribution	14	3	1	0	2		14	7	3	1	30
Villages	Raw	0	0	па	0	0		0	0	na	0	0
Ũ	Treated	0	0	na	0	0		o	0	na	D	0
	Distribution	0	0	па	0	0		D	0	na	D	0
Hamlets	Raw	11	11	2	0	7		10	10	40	1	22
	Treated	11	4	0	0	1		11	4	1	0	3
	Distribution	11	2	1	0	1		11	5	2	2	6
Water Points	Raw	2	2	2	1	2		2	2	23	D	35
	Treated	2	1	1	0	1		2	2	21	0	30
	Distribution	0	0	na	0	0		0	0	na	0	0
Cities	Raw	2	2	20	0	10		2	2	38	D	12
	Treated	2	0	na	0	0		2	0	Da	D	0
	Distribution	1	0	na	0	0		1	0	na	0	0

		1		Molds (cfu/1 n	nL)				Yeast (cfu/1 m	L)	
		Number	Number >1	mean of	Number	Maximum	Number	Number >:	mean of	Number	Maximum
		of Samples		Samples > 1	Uncountable	Value	of Samples		Samples > 1	Uncountable	Value
All Sites	Raw	6	I	3	0	0	6	4	4	0	31
	Treated	3	1	0	0	1	3	2	1	0	3
	Distribution	6	2	1	0	1	6	5	1	0	6
Towns	Raw	4	1	3	0	0	4	3	2	0	1
	Treated	2	1	0	0	1	2	2	1	0	3
	Distribution	3	1	0	0	0	3	2	0	0	0
Villages	Raw	1	0	na	0	0	1	1	26	0	31
_	Treated	0	0	na	0	0	0	٥	na	0	0
	Distribution	1	1	2	0	1	1	1	3	0	3
Hamlets	Raw	1	0	na	0	0	1	0	na	0	0
	Treated	1 1	0	na	0	0	1	0	na	0	0
	Distribution	2	0	na	0	0	2	2	2	0	6
Water Points	Raw	0	0	na	0	0	0	0	па	0	0
	Treated	0	0	na	0	0	0	0	na	0	0
	Distribution	0	0	na	0	0	0	0	na	0	0
Cities	Raw	0	0	na	0	0	D	0	na	D	0
	Treated	0	0	na	0	0	0	0	<u>118</u>	0	0
	Distribution	0	0	na	0	0	0	O	na	0	0

		Irc	n Reducing	Bacteria (org/1 m	L)		Sulf	ate Reducing	z Bacteria (org/1 n	nL)
		Number	Number	mean of	Number	1	Number	Number	mean of	Number
		of Samples	> 0.3	Samples > 0.3	> 110		of Samples	> 0.3	Samples > 0.3	> 110
All Sites	Raw	35	31	82	21		35	28	28	3
	Treated	31	4	28	1		31	10	4	0
	Distribution	33	10	34	3		34	12	2	0
Towns	Raw	18	15	98	13		18	14	27	1
	Treated	16	2	1	0		16	6	1	0
	Distribution	17	6	37	2		18	6	2	0
Villages	Raw	1	1	I	0		1	0	na	o
	Treated	0	0	na	0		0	0	na	0
	Distribution	1	1	2	0		1	1	2 ·	0
Hamlets	Raw	12	11	75	6		12	10	25	1
	Treated	11	1	2	0		11	3	3	0
	Distribution	13	3	38	1		13	5	1	0
Water Points	Raw	2	2	110	2		2	2	78	1
	Treated	2	1	110	1		2	1	24	0
	Distribution	0	D	na	D		0	0	na	0
Cities	Raw	2	2	13	0		2	2	3	0
	Treated	2	0	na -	0		2	0	na	0
	Distribution	2	0	na	0		2	0	ла	0

### Surface Water Sources

		Itro	n Deducing	Bacteria (org/1 m	1)
		Number	Number	mean of	Number
	_	of Samples	> 0.3	Samples > 0.3	> 110
I Sites	Raw	28	27	89	20
	Treated	28	3	37	1
	Distribution	25	6	37	2
owns	Raw	14	13	105	12
	Treated	14	1	0	0
	Distribution	13	4	\$5	2
'illages	Raw	0	0	na	0
	Treated	0	0	na	0
	Distribution	0	0	na	0
lamiets	Raw	10	10	78	6
	Treated	10	1	2	0
	Distribution	10	2	2	0
Vater Points	Raw	2	2	110	2
	Treated	2	1	110	1
	Distribution	0	0	<u>na</u>	0
Cibes	Raw	2	2	13	0
	Treated	2	0	na	0
	Distribution	2	0	D8	0

		Irc	n Reducing	Bacteria (org/1 m	L)	Γ	Sulf	ate Reducing	g Bacteria (org/1 r	nL)
		Number	Number	mean of	Number	1	Number	Number	mean of	Number
		of Samples	> 0.3	Samples > 0.3	> 110		of Samples	> 0.3	Samples > 0.3	> 110
All Sites	Raw	7	4	39	1	1	7	1	15	0
	Treated	3	1	1	0		3	1	0	0
	Distribution	8	4	29	1		8	4	3	0
Towns	Raw	4	2	55	1		4	1	15	0
	Treated	2	1	1	0	ļ	2	1	0	0
	Distribution	4	2	1	0		4	2	4	0
Villages	Raw	1	1	1	0		1	0	na	0
	Treated	0	0	па	0		0	0	08	0
	Distribution	1	1	2	0		1	1	2	0
Hamlets	Raw	2	I	46	0		2	0	na	0
	Treated	1	0	na	0		1	0	na	0
	Distribution	3	1	110	1		3	1	0	0
Water Points	Raw	0	o	na	D		0	0	na	0
	Treated	0	D	na	D		0	0	na	0
	Distribution	0	0	na	Ø		0	0	na	0
Cities	Raw	0	0	na	D		0	0	па	0
	Treated	0	0	62	0		0	0	na	0
	Distribution	0	0	na	0		0	0	па	0

					All Wate	er				
				z Bacteria (org/1 n		1	Thios	ulfate Reduc	ing Bacteria (org/l	mL)
		Number of Samples	Number > 0.3	mean of Samples > 0.3	Number > 110		Number of Samples	Number > 0.3	mean of Samples > 0.3	Number > 110
All Sites	Raw	35	29	55	12	- I	35	34	91	27
	Treated	31	2	7	0		30	19	29	4
	Distribution	34	9	1	0		33	25	64	13
Towns	Raw	18	15	46	5		18	17	82	12
	Treated	16	0	na	0		16	10	16	1
	Distribution	18	3	1	0		18	13	66	7
Villages	Raw	1	0	na	0		1	1	21	0
-	Treated	0	0	na	0		0	0	na	0
	Distribution	1	1	1	O		1	1	46	0
Hamlets	Raw	12	10	65	5		12	12	103	11
	Treated	11	1	4	0		10	6	46	2
	Distribution	13	5	1	0		12	9	64	5
Water Points	Raw	2	2	110	2		2	2	110	2
	Treated	2	1	9	0		2	2	55	1
	Distribution	0	0	na	0		0	0	na	0
Cities	Raw	2	2	25	0		2	2	110	2
	Treated	2	0	na	0		2	1	1	0
	Distribution	2	0	ла	0		2	2	60	1

							or bourd			
		Sub	ite Reducing	g Bacteria (org/1 m	1L)		Thios	lfate Reduc	ing Bacteria (org/1	mL)
		Number	Number	mean of	Number	- [	Number	Number	mean of	Numbe
		of Samples	> 0.3	Samples > 0.3	> 110		of Samples	> 0.3	Samples > 0.3	> 110
All Sites	Raw	28	28	57	12	_ [	28	28	104	26
	Treated	28	2	7	0		27	17	26	3
	Distribution	26	6	1	0		25	18	72	11
Towns	Raw	14	14	49	5		14	14	98	12
	Treated	14	0	na	0		14	9	5	0
	Distribution	14	2	1	0		14	9	80	6
Villages	Raw	0	0	na	0		0	0	na	0
-	Treated	0	0	na	0	- 1	0	0	na	0
	Distribution	0	0	na	0		0	0	na	0
Hamlets	Raw	10	10	65	5		10	10	110	10
	Treated	10	1	4	0		9	5	55	2
	Distribution	10	4	1	0		9	7	66	4
Water Points	Raw	2	2	110	2		2	2	110	2
	Treated	2	1	9	0		2	2	55	1
	Distribution	0	0	na	0		0	0	na	0
Cities	Raw	2	2	25	0		2	2	110	2
	Treated	2	0	na	0 (	- 1	2	1	1	D
	Distribution	2	0	na	0		2	2	60	1

		Sul	ite Reducing	z Bacteria (org/1 n	nL)	Thios	lfate Reduc	ing Bacteria (org/)	mL)
		Number	Number	mean of	Number	Number	Number	mean of	Number
		of Samples	> 0.3	Samples > 0.3	> 110	of Samples	> 0.3	Samples > 0.3	> 110
All Sites	Raw	7	1	2	0	7	6	30	1
	Treated	3	0	na	0	3	. 2	56	1
	Distribution	8	3	1	0	8	7	42	2
Towns	Raw	4	1	2	0	4	3	8	0
	Treated	2	0	na	0	2	1	110	1
	Distribution	4	1	1	0	4	4	34	1
Villages	Raw	1	0	na	o	1	1	21	0
-	Treated	0	0	112	0	0	0	na	0
	Distribution	1	1	1	0	1	1	46	0
Hamlets	Raw	2	0	ла	0	2	2	67	1
	Treated	1	0	na	0	1	1	2	0
	Distribution	3	1	0	0	3	2	57	1
Water Points	Raw	0	0	па	o	0	0	na	0
	Treated	0	0	na	0	0	0	na	D
	Distribution	0	0	na	0	0	0	na	0
Cities	Raw	0	0	na	o	0	0	na	0
	Treated	0	0	na	0	0	0	na	0
	Distribution	0	0	na	0	0	0	na	0

Cities

Raw Treated

Distribution

		Irc		ter Sources Bacteria (org/1 m	<u>ເ</u>
		Number of Samples	Number > 0.3	mean of Samples > 0.3	Number > 110
All Sites	Raw	35	31	82	21
	Treated	31	5	23	1
	Distribution	34	17	33	4
Towns	Raw	18	15	79	10
	Treated	16	2	1	0
	Distribution	18	8	35	2
Villages	Raw	1	D	па	0
	Treated	0	0	na	0
	Distribution	1	1	2	0
Hamlets	Raw	12	12	76	7
	Treated	11	1	0	0
	Distribution	13	7	40	2
Water Points	Raw	2	2	110	2
	Treated	2	2	55	1
	Distribution	0	0	na	0
Cities	Raw	2	2	110	2
	Treated	2	0	na	D
	Distribution	2	1	0	Ð

		lro	n Oxidizing	Bacteria (org/1 ml	L)
		Number	Number	mean of	Number
		of Samples	> 0.3	Samples > 0.3	> 110
All Sites	Raw	28	28	89	21
	Treated	28	5	23	1
	Distribution	26	12	37	3
Towns	Raw	14	14	84	10
	Treated	14	2	1	0
	Distribution	14	6	45	2
Villages	Raw	o	D	na	0
-	Treated	0	0	na	0
	Distribution	0	0	na	0
Hamiets	Raw	10	10	87	7
	Treated	10	1	0	0
	Distribution	10	5	33	1
Water Points	Raw	2	2	110	2
	Treated	2	2	55	1
	Distribution	0	0	na	0

#### Ground Water Sources

2 0

2 2 2

110 na 0

2 0 0

Surface Water Sources

٦

				rater bound	
		Irc	n Oxidizing	Bacteria (org/1 ml	L)
		Number	Number	mean of	Number
		of Samples	> 0.3	Samples > 0.3	> 110
All Sites	Raw	7	3	16	0
	Treated	3	0	na	0
	Distribution	8	5	23	1
Towns	Raw	4	1	2	0
	Treated	2	0	na	0
	Distribution	4	2	3	0
Villages	Raw	1	0	na	0
-	Treated	0	0	na	0
	Distribution	1	1	2	0
Hamlets	Raw	2	2	23	0
	Treated	1	0	ma	0
	Distribution	3	2	55	1
Water Points	Raw	0	0	na	0
	Treated	0	0	na	0
	Distribution	0	0	na	0
Cities	Raw	0	0	na	0
	Treated	0	0	na	Q
	Distribution	0	0	na	D

Table (	Table 6: Summary of THM Data from Site Visits SUMMARY OF THN TREATED WATER	nary of	OF THM D8	Data fro su	m Site	Visits OF THM D	rom Site Visits summary of THM DATA FROM ALL SITES	ALL SITI	1.1	DISTRIBUTED WATER	TER		
	Number of Sites	Mean ug/L	Upper 95 percentile	Upper 95 Lower 95 Number Percent percentile percentile >100 ug/L >100 ug/L	Number > 100 ug/L	Percent > 100 ug/L		Number of Sites	Mean ug/L	Upper 95 percentile	Upper 95 Lower 95 Number Percent percentile percentile >100 ug/L >100 ug/L	Number > 100 ue/L	Percent > 100 us/I.
All Sites	25	81.2	389	16.96	10	40%	All Sites	25	97.6	516	18.44	13	52%
Cities	1	41.4	,		0	%0	Cities	1	44.9	,	1	0	9%0
Towns	12	67.1	307	14.69	4	33%	Towns	13	70.7	437	11.43	9	46%
Vilages			,	,	•		Vilages					1	
Hamlets	10	127.0	631	25.56	9	60%	Hamlets	ш	153.2	545	43.02	7	64%
Water Points	2	38.0			0	%0	Water Points						

SUMMARY OF THM DATA FROM SURFACE WATER SITES

		TR	TREATED WATER	SR					DIST	DISTRIBUTED WATER	E	~	K
	Number of	Mean	Upper 95	Upper 95 Lower 95 Number	Number	Percent		Number of	Mean	Upper 95		Lower 95	Lower 95 Number
	Sites	ug/L	percentile	percentile	percentile percentile > 100 ug/L > 100 ug/L	> 100 ug/L		Sites	ug/L	percentile	đ	srcentile	percentile percentile > 100 ug/L > 100 ug/L
All Sites	22	84.0	378	18.69	6	41%	All Sites	21	113.8	458	14	28.23	8.23 12
Cities	1	41.4	,	1	0	%0	Cities	1	44.9			4	0 .
Towns	10	1.17	340	17.49	4	40%	Towns	10	95.1	431	21	21.00	.00 6
Vilages			,				Vilages	•	•	•		6	•
Hamlets	6	119.3	634	22.43	5	56%	Hamlets	10	149.3	575	38.	38.75	75 6
Water Points	2	38.0			0	0%0	Water Points		,		'		

	ш
-0	н
	в
1	1
-	н
-	1
20	н
<b>~</b>	1
$\sim$	н
1	н
[1]	1
E	1
-	
	Л
-	1
~	3
-	1
0	1
	Į.
7	l
4	J
$\square$	J
GROUN	1
$\circ$	1
$\sim$	8
1	8
5	8
$\sim$	1
L	1
>	8
-	R
$\circ$	1
-	æ
24	
FR	
FRO	8
A FR	1
AFR	No. of Lot of Lo
TA FR	Concession of the local division of the loca
ATA FR	and the second second
ATA FR	
DATA FR	A COLUMN AND A COLUMN
DATA FR	A DESCRIPTION OF A DESC
I DATA	A COLUMN AND A COL
M DATA FR	A COLUMN AND A DOWN AND A
I DATA	A COLUMN A DAY AND A
<b>HM DATA</b>	A COLUMN AND AN AND AND AND AND AND AND AND AND
<b>HM DATA</b>	A COLUMN AND AND AND AND AND AND AND AND AND AN
<b>HM DATA</b>	A COMPANY OF THE REAL PROPERTY
<b>HM DATA</b>	A CONTRACTOR OF A DESCRIPTION OF A DESCR
<b>HM DATA</b>	A CONTRACTOR OF A CONTRACTOR O
<b>HM DATA</b>	A CONTRACTOR OF A CONTRACTOR O
<b>HM DATA</b>	A COLUMN AND A
<b>HM DATA</b>	A COLUMN AND A REAL PROPERTY OF A DESCRIPTION OF A DESCRI
<b>HM DATA</b>	A COLUMN AND A REAL AND A
<b>HM DATA</b>	A rest way have been as the second seco
<b>HM DATA</b>	A CONTRACTOR OF A DESCRIPTION OF A DESCR
I DATA	A COMPANY AND A REPORT OF A COMPANY AND A
<b>HM DATA</b>	
<b>HM DATA</b>	「「「「「」」」「「」」」」「「」」」」」」」」」」」」」」」」」」」」」
IMARY OF THIM DATA	A COMPANY OF A DESCRIPTION OF A
IMARY OF THIM DATA	
IMARY OF THIM DATA	
IMARY OF THIM DATA	
<b>HM DATA</b>	
IMARY OF THIM DATA	

		T	TREATED WATER	SR					DIST	DISTRIBUTED WATER	TER		Contraction of the states of the states
	Number of	Mean	Upper 95	Upper 95 Lower 95	Number	Percent		Number of		Upper 95	Lower 95	Lower 95 Number	Percent
All Sites	3	63.1	percenute 134274443	0.00	регоепше регоепше > 100 цедь > 100 цедь [34274443 0.00 1 33%	> 100 ug/L	All Sites	Dites	43.6	4877	percentule percentule > 100 ug/L > 100 ug/L 4877 0.39 1 25%	> 100 ug/L	> 100 ug/L 25%
Cities	i.	•	•				Cities		•				•
Тоwпя	3	33.6		÷	0	%0	Towns	e	26.3	20576	0.03	0	%0
Vilages	1	4	Ģ.	•			Vilages	i	•		•		
Hamlets	1	223.1	•	•	1	100%	Hamlets	1	1.861	•		1	100%
Water Points				•	,		Water Points						

		V	All NRBS Sites	sites			8	Surface Water Sites	or Siles			~	Ground Water Sites	er Sites	
	T'otal Samples	Number Above 100 ug/L*	Number Percent Above Ahove 100 ug/L* 100 ug/L*	Geometric Mean ug/L	Upper 95% Confidence in Mean	Total Samples	Number Above 100 ug/L*	Percent Above 100 ug/L*	Geometric Mean ug/L	Upper 95% Confidence in Mean	T'otal Samples	Number Above 100 ug/L*	Percent Above 100 ug/L*	Geometric Mean ue/L	Upper 95% Confidence in Mean
City	58	0	960	6	12	58	0		6	12	0			0	
Town	209	15	79%	23	28	196	15	8%	28	33	EI	0	960	2	2
Village	59	16	27%	35	54	47	16	34%	73	95	12	0	0%0	2	æ
Hamlet	89	33	37%	45	62	76	32	42%	60	82	13	1	8%	8	20
Water Point	6	e	33%	29	109	9	3	50%	82	245	<del></del>	0	9%0	ma	17
Metis Settlement	8	4	\$0%	16	128	90	4	50%	16	128	0	4	¢		đ
Total	460	11	15%	25	29	394	70	18%	32	37	99	Ŧ	296	9	6

Table 7: Summary of Historical THM Data

Type of Facility	Population	Number of Sites	Geometric Mean of Site Average Turbidities	Lower 95% Confidence in Mean	Upper 95% Confidence in Mean	Lower 95 Percentile	Upper 95 Percentile	Alpha Value from t test Comnarisons
Surface Water	Pop. > 500 Pop. < 500	29 37	0.50 0.79	0.38 0.57	0.66 1.09	0.1 0.1	2.4 6.1	2%
Ground Water	Pop. > 500 Pop. < 500	4 13	0.27 0.41	0.12 0.22	0.61 0.76	0.0	9.2 5.2	26%
All Sites	Pop. > 500 Pop. < 500	33 50	0.46 0.66	0.36 0.49	0.61 0.89	0.1	2.3 5.8	5%

Table 8: Summary of Turbidity Data from the Treated Water Survey for the NRBS Area

.

						Samplin				1900 -	1994		
Status	Туре	Total Samples	atisfactor Samples	Doubtful 0 <tc<10< td=""><td>Unsat. FC &gt; 0</td><td>TC &gt; 10</td><td>TNTC</td><td>Confluent Growth</td><td>24 -48 hr Old</td><td>Too Old &gt; 48 hr</td><td>No Lable</td><td>Broken</td><td>% Poor* Samples</td></tc<10<>	Unsat. FC > 0	TC > 10	TNTC	Confluent Growth	24 -48 hr Old	Too Old > 48 hr	No Lable	Broken	% Poor* Samples
Hamlet	surface	14883	13909	122	37	25		280	347	107	51	5	3.2%
	ground	4817	4475	32	3	3		99	153	46	6		3.0%
	no Cl ₂	2055	1876	80	3	2		60	28	5	1		7.2%
Village	surface	4045	3811	31	7	2		30	146	7	10	1	1.8%
	ground	1781	1693	6	1			17	36	9	18	1	1.4%
	no Cl ₂	708	684	4				5	12			3	1.3%
Town	surface	11988	11505	91	17	10		61	247	37	15	5	1.5%
	ground	1989	1849	13	4			32	62	7	22		2.6%
	no Cl ₂	1022	945	39	2	3		11	13	5	4		5.5%
City	surface	6390	6268	32	3			17	52		4	14	0.8%
Water Poi		3693	3151	182	41	31		219	57	10	2		13.1%
	ground	1628	1530	30				38	20	7	1	2	4.3%
	no Cl ₂	3592	3203	182	22	5		99	68	5	5	3	8.8%
Metis Setti	surface ground	238	232						4	1	1		0%
	no Cl ₂	295	283	2		1		2	2	1	4		1.7%
School	surface	615	558	18	3	3		14	16	1	2		6.4%
	ground	973	918	7		3		20	20	4	1		3.2%
	no Cl ₂	210	164	11				34	1				21.5%
Other	surface	1724	1645	8	3			9	37	7	15		1.2%
	ground	130	126					1		3			0.8%
	no Cl ₂	414	363	14	15			17	5				11.2%
Sub-divisi	surface												-
	ground	572	548	2				4	15	3			1.1%
	no Cl ₂												-
Industry	surface	1908	1715	15	12	9		28	53	3	71	2	3.6%
	ground	131	118					7	6				5.6%
	no Cl ₂	59	52	1				5	1				10.3%
Regional	surface												1
Hutterite C	surface										<u></u>		-
	ground												-
	no Cl ₂	1	1										0%
Provicial P	surface	1868	1577	88	9	13		118	48	13	2		12.6%
	ground	2017	1884	25	1	8		52	30	3	11	3	4.4%
	no Cl ₂												-
Mobile Ho		203	181	6	1			7	4	3	1		7.2%
	ground	558	494	10	1	3		34	7	2	6	1	8.9%
	no Cl ₂	182	161	9				7	4	1			9.0%
Summer V												•	-
	ground			-									-
	no Cl ₂	28	25	1				1	1				7.4%
Airport	surface	668	648	5	4			3	6	2			1.8%
	ground no Cl ₂												-
National P		74	69	1				1	3				2.8%
	ground no Cl ₂												-
71459	surface	48297	45269	599	137	93		787	1020	191	174	27	3.45%
	ground	14596	13635	125	10	17		304	349	84	65	7	3.24%
	no Cl ₂	8566	7757	343	42	11		241	135	17	14	6	7.59%
	Total	71459	66661	1067	189	121		1332	1504	292	253	40	3.9%

% Poor = (Doubtful + Unsat. + V +TNTC + Confluent) / (Total - old samples - No lable - Broken)

Table 10: Summary of Microbiological Sampling in Alberta, 1988 - 1994

Table TO.										1334			
Status	Туре	Total Samples	Satisfactory Samples	0 <tc<10< th=""><th>Unsat. FC &gt; 0</th><th>V TC &gt; 10</th><th>TNTC</th><th>Growth</th><th>24 -48 hr Old</th><th>Too Old &gt; 48 hr</th><th>No Lable</th><th>Broken</th><th>% Poor* Samples</th></tc<10<>	Unsat. FC > 0	V TC > 10	TNTC	Growth	24 -48 hr Old	Too Old > 48 hr	No Lable	Broken	% Poor* Samples
Hamlet	surface	30339	28370	231	87	35		657	603	230	104	22	3.4%
	ground	14712	13771	94	14	7		323	325	133	42	3	3.1%
	no Cl ₂	7957	7229	236	23	8		256	122	40	41	2	6.7%
Village	surface	17390	16223	147	42	5		204	542	116	86	25	2.4%
	ground	15468	14468	48	8	4		280	450	93	105	12	2.3%
	no Cl ₂	8363	7711	173	4	17		180	198	37	33	10	4.6%
Town	surface	39837	38302	237	56	22		231	659	178	116	36	1.4%
	ground	12249	11450	65	22	6		113	387	115	80	11	1.8%
	no Cl ₂	2887	2642	94	4	7		47	60	21	11	1	5.4%
City	surface	75211	74087	235	55	23		100	472	98	93	48	0.6%
Water Point	surface	4526	3894	200	45	31		270	67	14	4	1	12.3%
	ground	2174	1990	59	23	3		57	28	8	3	3	6.7%
	no Cl ₂	4649	4005	212	22	11		264	116	9	7	3	11.3%
Metis Settlement	surface	565	532	8	1	2		8	7	2	5		3.4%
	ground	947	907	~	2	4		12	14	6	6		1.5%
	no Cl ₂	295	283	2		1		2	2	1	4		1.7%
School	surface	1442	1315	35	12	3		20	26	5	26		5.1%
	ground	1909 1684	1770 1 <b>415</b>	13 41	1	3		70 153	42	9 11	2		4.6%
	no Cl ₂	1004	1415	41				153	49	11	14		12.1%
Other	surface	4818	4650	22	11	2		24	73	13	23		1.3%
	ground	3043	2884	25	6	7		28	42	16	33	2	2.2%
	no Cl ₂	618	484	22	23	3		75	11				20.3%
Sub-division	surface	3257	3199	21	9	1		2	4	10	11		1.0%
	ground	1921	1834	13	3	1		16	32	14	8		1.8%
	no Cl ₂	412	376	11	3	1		9	6	5	1		6.0%
Industry	surface	3934	3565	81	22	10		69	77	19	86	5	4.9%
	ground no Cl ₂	131 80	118 <b>70</b>	1				7 8	6 1				5.6% 11.4%
	110 C12			,					1				
Regional	surface	699	678	2	4	1		2	8	1	3		1.3%
Hutterite Colony	surface	24	4.0		4			3					
	ground no Cl ₂	24 50	18 33	2 6	1 2			7	1		1		25.0% 31.3%
Provicial Park	surface	3180	2824	97	12	. 15		147	60 52	15	10		8.8%
	ground no Cl ₂	3536 405	3320 335	39 18	2 1	11 3		86 38	53 3	8 3	14 4	3	4.0% 15.2%
		405	555	10	1	5		50	3	3	**		13.270
Mobile Home Par		453	419	8	1			14	7	3	1		5.2%
	ground	558 546	<b>4</b> 94 501	10 11	1 1	3		34 10	7 10	2 3	6 10	1	8.9% 4.2%
	no Cl ₂	540	501					10	10	3	10		4.270
Summer Village	surface												·
	ground no Cl ₂	229	184	4				9	1	2	29		6.6%
													0.07
Airport	surface ground	668 279	648 263	5 7	4			3	6 2	2			1.8% 5.1%
	no Cl ₂	213	200	,	·			0	4				5.170
													-
National Park	surface	802	756	3	1			6	23	4	9		1.3%
	ground no Cl ₂												-
			<u> </u>										
TOTAL	surface	187121	179462	1332	362	150		1757	2634	710	577	137	1.97%
	ground no Cl ₂	56951 28175	53287 25268	375 831	83 84	45 51		1035 1058	1388 580	404 132	299 155	35 16	2.81% 7.42%
	Total	272247	258017	2538	529	246		3850	4602	1246	1031	188	2.7%
% Poor = (Dou							No Johl	-					

% Poor = (Doubtful + Unsat. + V +TNTC + Confluent) / (Total - old samples - No lable - Broken)

TABLE 11: NUMBER OF FACILITIES AND PEOPLE SERVED WHERE MORE THAN 10 % OF WATER SAMPLES WERE COLIFORM POSITIVE IN A SINGLE YEAR

ALL ALBERTA           ALL ALBERTA           VILLAGES         TOWNS         CITIES         ALL SITES           \$ VILLAGES         TOWNS         TOWNS         CITIES         ALL SITES           \$ VILLAGES         TOWNS         TOWNS         CITIES         ALL SITES           \$ Total         >10%         10%         10%         10%         10%         10%         10%         10%         <		-		-								
ALL ALBERTA           ALL ALBERTA           OTHER TYPES         WATER POINTS         HAMLETS         VILLAGES         TOWNS         CITTES         CITTES         Sites Sites Pop. Pop.         Sites Sites Pop.         Pop.         Sites Sites Pop.         Pop.         Sites Sites Pop.         Pop.         Sites Sites Pop.         Pop.         Sites Sites Pop.         Pop.         Sites Sites Pop.         Pop.         Sites Sites Pop.         Pop.         Sites Sites Pop.         Pop.         Sites Sites Pop.         Pop.         Sites Sites Pop.         Pop.         Sites Sites Pop.         Pop.         Sites Sites Pop.         Pop.         Sites Sites Pop.         Pop.         Sites Sites Pop.         Pop.         Sites Sites Pop.         Pop.         Sites Sites Pop.         Pop.         Sites Sites Pop.         Pop.         Sites Sites Pop.         Pop.         Sites Sites Pop.         Pop.         Sites Sites Pop.         Pop.         Sites Sites Pop.         Pop.         Sites Sites Pop.         Pop.         Sites Sites Pop.         Pop.         Sites Sites Pop.         Pop.         Sites Sites Pop.         Pop.         Sites Sites Pop.         Pop.         Sites Sites Pop.         Pop.         Sites Sites Pop.         Pop.         Sites Sites Pop.         Pop.         Sites Pop.         Pop.         Sites Pop			Pop.	Total	1986807	2030791	2089911	2113410	2149616	2169778	2192461	
ALL ALBERTA           ALL ALBERTA           OTHER TYPES         WATER POINTS         HAMLETS         VILLAGES         TOWNS         CITTLES         CITTLES           Sites Sites Pop.         Pop.         Sites Sites Pop.         Pop.         Sites Sites Pop.         Pop.         Sites Sites Pop.         Pop.         Sites Sites Pop.         Sites Sites Pop.         Sites Sites Pop.         Pop.         Sites Sites Pop.         Sites Pop.         Sites Sites Pop.		L SITES	Pop.	>10%	1969	2824	5125	2267	3678	1593	3134	
ALL ALBERTA           ALL ALBERTA           Sites Sites Pop. Pop.         Sites Sites Pop.         Pop.         Sites Sites Pop.         Pop.         Sites Sites Pop.         Pop.         Fop.         Pop.         Po		AL			425	642	662	700	111	662	665	
ALL ALBERTA           OTHER TYPES         WATTER POINTS         HAMLETS         VILLAGES         TOWNS         CI           Sites Sites Pop. Pop.         Sites Sites Sites Pop. Pop.         Sites Sites Sites Sites Pop. Pop.         Sites Sites Sites Pop. Pop.         Sites Sites Sites Sites Pop. Pop.         Sites Sites Sites Sites Pop. Pop.         Sites Pop. Pop.         Sites Si			Sites	>10%	27	51	42	24	27	11	27	
ALL ALBERTA           OTHER TYPES         WATTER POINTS         HAMLETS         VILLAGES         TOWNS         CI           Sites Sites Pop. Pop.         Sites Sites Pop. Pop.         Sites Sites Pop. Pop.         Sites Sites Pop. Pop.         Sites Sites Sites Sites Sites Pop. Pop.         Sites Pop. Pop.         Sites Si		-		-					-			
ALL ALBERTA           OTHER TYPES         WATTER POINTS         HAMLETS         VILLAGES         TOWNS         CI           Sites Sites Pop. Pop.         Sites Sites Sites Pop. Pop.         Sites Sites Sites Sites Pop. Pop.         Sites Sites Sites Pop. Pop.         Sites Sites Sites Sites Pop. Pop.         Sites Sites Sites Sites Pop. Pop.         Sites Pop. Pop.         Sites Si					1568442	1592694	1639914	1658782	1689198	1712736	1728743	
ALL ALBERTA           OTHER TYPES         MATER POINTS         HAMLETS         ALL ALBERTA           OTHER TYPES         WATER POINTS         HAMLETS         ALL ALBERTA           Sites Sites Pop. Pop.         Sites Sites Sites Pop. Pop.         Sites Sites Sites Pop. Pop.         Sites Site Sites Sites Sites Sites Site Site Site Site Site Site Site Site		CITIES		>10%	0	0	0	0	0	0		
ALL ALBERTA           OTHER TYPES         MLLALBERTA           OTHER TYPES         WATER POINTS         HAMLETS         ALL ALBERTA           Sites Sites Pop. Pop.         Pop.         Pop.         Pop.         Pop.         Pop.         Pop.         Pop.         Pop.         Pop.         Pop.         Pop.         Pop.         Pop.         Pop.         Pop.         Pop.         Pop.         Pop.         Pop.         Pop.         Pop.         Pop.         Pop.         Pop.         Pop. <th col<="" td=""><td></td><td></td><td></td><td></td><td>15</td><td>15</td><td>15</td><td>15</td><td>15</td><td>15</td><td>15</td></th>	<td></td> <td></td> <td></td> <td></td> <td>15</td> <td>15</td> <td>15</td> <td>15</td> <td>15</td> <td>15</td> <td>15</td>					15	15	15	15	15	15	15
ALL ALBERTA           OTHER TYPES         WATER POINTS         HAMLETS         VILLAGES         ALL ALBERTA           Sites Sites Pop. Pop.         Sites Sites Pop.         Pop. Pop.         Sites Sites Pop. Pop.         Sites Sites Pop. Pop.         Sites Sites Pop. Pop.         Sites Sites Pop.         Pop. Pop.         Sites Sites Pop. Pop. Pop.         Sites Sites Pop. Pop.         Sites Pop. Pop.         Sites Pop. Pop.         Sites Pop. Pop.         Sites Sites Pop. Pop.         Sites Pop. Pop.         Sites Pop.         Sites Pop. Pop.         Sit			Sites	>10%	0	0	0	0	0	0	0	
ALL ALBERTA           OTHER TYPES         WATER POINTS         HAMLETS         ALL ALBERTA           Sites Sites Pop. Pop.         Sites Sites Pop. Pop.         Sites Sites Pop. Pop.         TOWNS           >10% Total >10%         TOWNS           0         0         0         0         11         49         363         1367         9         124         1241         50390         4         116         1219         44648         1         111         5146           20         230         355         14635         17         51         212         1169         50476         2         115         38         44648         1         111         5146           11         286         260         28741         10         137         1390         9         1315         314         3         115         5146           11         286         260         2874         2         118         102         111         554         111         554         111         554         111         524         111			Pop.	Total	321839	314667	323790	324799	330563	333162	340416	
ALL ALBER           OTHER TYPES         WATER POINTS         HAMLETS         ALL ALBER           Sites Site Sites Sites Sites Sites Sites Site Site Site Site Site Site Site Site	-	SNM	Pop.	>10%	5146	642	2798	1542	2139	0	2139	
OTHER TYPES         WATER POINTS         HAMLETS         VILLAGES           Sites Sites Pop. Pop.         Sites Sites Pop. Pop.         Sites Sites Pop. Pop.         Sites Sites Pop. Pop.           >10% Total >10	ERT/	TO	Sites	Total	115	111	111	111	ш	111	112	
OTHER TYPES         WATER POINTS         HAMLETS         VILLAGES           Sites         Pop.         Pop.         Sites	ALB		Sites	>10%	. 3	1	7	1	3	0	5	
OTHER TYPES         WATER POINTS         HAMLETS         VILLAGES           Sites         Pop.         Pop.         Sites	T	-	_	-								
OTHER TYPES         WATTER POINTS         HAMLETS         VILL.           Sites	AI				1	44648		44648	44781			
OTHER TYPES         WATER POINTS         HAMLETS           Sites Sites Sites Sites Sites Fop. Pop.         Sites Sit		LAGES									0	
OTHER TYPES         WATTER POINTS         HAMLETS           Sites         Pop.		VIL			116	115	118	117	118	118	119	
OTHER TYPES         WATER POINTS         HAMLETS           Sites         Sites         Pop.         Pop.           >10%         Total         >10%         Total         >10%         Total           0         0         0         0         11         49         363         1367         9         124         1241           20         230         355         14635         17         51         278         1390         12         124         1241           15         242         322         24869         14         51         137         1390         9         132         853           11         286         260         28741         10         48         214         1390         9         132         853           11         286         260         28741         10         48         214         1390         0         139         0           11         295         290         28534         9         47         1310         2         143         408           1         245         100         235206         6         47         165         1080         1         131			Sites	>10%	4	8	4	1	7	ŝ	0	
OTHER TYPES         WATER POINTS         HAMLETS           Sites         Sites         Pop.         Pop.           >10%         Total         >10%         Total         >10%         Total           0         0         0         0         11         49         363         1367         9         124         1241           20         230         355         14635         17         51         278         1390         12         124         1241           15         242         322         24869         14         51         137         1390         9         132         853           11         286         260         28741         10         48         214         1390         9         132         853           11         286         260         28741         10         48         214         1390         0         139         0           11         295         290         28534         9         47         1310         2         143         408           1         245         100         235206         6         47         165         1080         1         131		-	ė.	R	8	76	8	40	11	60	31	
OTHER TYPES         WATER POINTS         HAM           Sites         Pop.         Pop.         Sites		S		- 1				511.				
OTHER TYPES         WATER POINTS         Sites         Sites <td></td> <td>AMLET</td> <td>es Pol</td> <td>tal &gt;10</td> <td></td> <td></td> <td></td> <td>0 6</td> <td></td> <td></td> <td></td>		AMLET	es Pol	tal >10				0 6				
OTHER TYPES         WATER POINTS           Sites         Pop.         Pop.           Sites         Sites         Sites         Sites           Sites         Sites         Pop.         Fop.           Sites         Sites         Sites         Sites           Sites         Sites         Sites         Sites           Sites         Sites         Sites         Sites           Sites         Sites         Sites         Sites           O         0         0         11         49         363         1367           20         230         355         14635         17         51         278         1390           15         242         322         24869         14         51         137         1390           11         286         260         28741         10         48         214         1390           11         295         290         28634         9         47         1080           9         247         300         22370         13         47         381         1080		H	tes Sit	0% 10			9 13	0 13	2 14	1 13	1 13	
OTHER TYPES Sites Sites Pop. Pop. >10% Total >10% Total 0 0 0 0 20 230 355 14635 15 242 322 24869 11 286 260 28741 11 295 290 28634 1 245 100 23526 9 247 300 23370		-	SI	~		1						
OTHER TYPES Sites Sites Pop. Pop. >10% Total >10% Total 0 0 0 0 20 230 355 14635 15 242 322 24869 11 286 260 28741 11 295 290 28634 1 245 100 23526 9 247 300 23370		s	Pop.	I otal	1367	1390	1390	1390	1310	1080	1080	
OTHER TYPES Sites Sites Pop. Pop. >10% Total >10% Total 0 0 0 0 20 230 355 14635 15 242 322 24869 11 286 260 28741 11 295 290 28634 1 245 100 23526 9 247 300 23370		POINT	Pop.	>10%	363	278	137	214	193	165	381	
OTHER TYPES Sites Sites Pop. Pop. >10% Total >10% Total 0 0 0 0 20 230 355 14635 15 242 322 24869 11 286 260 28741 11 295 290 28634 1 245 100 23526 9 247 300 23370		WATER	Sites	I otal	49	51	51	48	47	47	47	
			Sites	>10%	=	17	14	10	6	9	13	
		-			-	5	6	=	4	9	0	
		BS		- 1	0						2237	
		ER TYI	dod s	al >105	0						7 300	
		OTH	es Site	1% Tot	0					24	24	
YBJ 198 199 199 199 199		1R	Sit	>1<	-					1 1	-	
		YEA			198	198	199	199	199	199	199	

TABLE 12: NUMBER OF FACILITIES AND PEOPLE SERVED WHERE MORE THAN	10 % OF WATER SAMPLES WERE COLIFORM POSITIVE IN A SINGLE YEAR	SUMMARY OF THE OTHER TYPES CATEGORY
------------------------------------------------------------------	---------------------------------------------------------------	-------------------------------------

										_
	3		Total	•	0	0	0	0	0	0
	Summer Villages	Pop.	>10%	0	0	0	0	0	0	-
	Sum	Sites	Total	0	0	-	-	~	•	-
		Sites	>10% Total >	0	0	0	0	0	0	-
									_	
	~	Pop.	Total	•	23	23	23	23	23	23
	Sub-divisions	Pop.	>10%	-	0	0	0	0	0	0
	Sub-	Sites	Total	0	1	-	-	2	2	~
		Sites	>10%	0	0	0	0	0	0	0
	F	_	_							
		Pop.	Total	0	349	349	349	216	141	141
	Schools	Pop.	>10%	0	100	0	0	100	100	•
	й	Sites Sites Pop.	Total	•	61	20	20	22	11	11
		Sites	>10%	0	s	1	1	2	ı	2
	ks		Total	0	0	0	0	0	0	•
	<b>Provincial Parks</b>	Pop.	>10%	0	0	0	0	0	0	-
s	Provir	Sites Sites Pop.	Total	0	s	7	٢	œ	80	∞
NRBS		Sites	>10%	0	0		-	0	0	
	Ĺ		-							
			Total		0	0	0	0	0	•
	Other	Sites Pop.	>10%	-	0	0	0	0	0	•
				0	4	4	4	Ś	ŝ	57
		Sites	>10%	0	0	0	0	0	•	-
	-		-	_		-				_
	Parks		% Total	0	0 1030	1030	0 1030	1030	450	450
	Mobile Home Parks	Sites Sites Pop.	>10% Total >10%	0	130	0	200	0	0	300
	Mobile	Site	Tot	0	\$	ŝ	S	Ś	7	7
		Sites	>10%	0	1	o		•	•	-
		Pop.	Total	0	0	0	2500	2500	2500	2500
	Industries	Sites Pop. Pop.	>10%	0	0	0	0	0	0	-
	npul	Sites	>10% Total >10%	0	0	0	п	12	11	=
		Sites	>10%	•	0	0	3	0	0	-
			_							$\neg$
	ues	Sites Sites Pop. Pop.	% Total	0	0	0	0	0	0	٥
	Huterite Colonies	s Pop	<u>al &gt;10'</u>	0	0	0	0	0	0	-
	Huten	ss Site	>10% Total >10%	0	0	0	0	0	0	-
		Site	?	-			-	•		_
	YEAR			1988	1989	1990	1661	1992	1993	1994
-	-	-	_	_						_

	.d.		578	578	578	578	20	
ages	Pop.		57	51	57	57	578	•
Summer Villages	Pop.		0	0	0	0	0	•
Sun	Sites Total		-	3	3	e	6	c
L	Sites	0	0	0	0	0	0	-
	Pop.	0	1622	1608	1608	1608	1608	1400
Sub-divisions	Pop.	0	0	13	0	0	0	•
Sub-	Sites	0	28	29	33	34	32	
L	Sites >10%	0	-	e	0	0	0	•
	Pop. Total	0	7193	7539	7539	7406	3668	0770
Schools	Pop.	0	130	213	0	100	100	•
Sc	Sites	0	127	128	130	132	16	
	Sites >10%	0	10	s	4	4	1	•
5	Pop. Total	0	100	10303	10303	10303	10303	CUCUI
Provincial Parks	Pop.		0	0	0	0	0	•
Provin	Sites		19	22	22	25	27	24
Provin	Sites >10%	0	8	4	-	0	0	•
	Pop. Total	0	1257	1260	1260	1260	1260	1710
Other	Pop.		0	0	0	0	0	•
	Sites	0	27	33	28	29	35	11
	Sites >10%	0	e	•	-	-	•	•
57	Pop. Total	0	2530	2130	2130	2130	1250	1960
Mobile Home Parks	Pop.		130	0	200	0	0	1961 005
lobile Hc	Sites	0	13	12	12	12	S	~
W	Sites >10%	0	7	0	1	0	0	
-	Pop.		0	0	3812	3838	3538	3438
Industries	Sites Pop. Total >10%	0	0	0	0	0	0	•
1	Sites 5	0	0	0	41	42	40	W
L	Sites >10%	0	0	0	6	3	0	•
50	Pop. Total	0	1355	1451	1121	1511	1321	1221
Huterite Colonies	Pop.	0	95	96	09	190	0	0 01
Huterite	Sites Sites Pop. Pop. >10% Total >10% Total	0	15	16	18	18	12	10
	Sites	0	2	m	-	e	0	•
YEAR	- ^	1988	1989	1990		1992	1993	1004

÷

TABLE 13: NUMBER OF FACILITIES AND PEOPLE SERVED WHERE MORE THAN 10 % OF WATER SAMPLES WERE POOR* IN A SINGLE YEAR

YEAR		OTHE	OTHER TYPES	S		VATER	WATER POINTS	S		HAN	HAMLETS			VILL	ALLAGES				TOWNS				CITIES		F		ALL SITES	ES
	Sites	Sites	Pop	Pop.	Siles	Sites	-dod	Pop.	Sites	03			Sites	Sites	Pop.	Pop.	Sites		s Pop.	Pop.	Sites	Sites	s Pop.	Pop.	15	Sites Sit	es Pop	Pop.
	>10%	Total	>10%	Total	>10%	Total	>10%	Total	>10%	Total	>10%	Total	>10%	Total	>10%	Total	>10%	/ Total	al >10%		>10%			3	1	0% Total		
1988	0	0	0	0	18	36	505	962	6	47	2570	11447	T.	15	704	6440	2	23	3663	66169	0	2	0	61597	e1	30 12	5 7442	2 149645
1989	13	34	630	1402	16	37	404	1162	00	52	1222	12170	•	16	0	6413	0	23	0	70764	0	2	0	90609		37 16	167 2256	6 157669
0661	9	38	200	1402	11	37	435	1162	\$	52	793	12170	0	16	0	6413	Ŧ	23	1256	70896	0	24	0	61256		29 171	1 2684	4 158151
1661	11	49	350	3902	15	LE	414	1162	÷	53	56	12220	0	16	0	6413	0	25	0	80357	0	19	0	62048		26 18	185 820	170954
1992	1	55	250	3769	0	36	203	1082	e	54	381	12300	0	17	0	6546	0	25	0	79850	0	2	0	62977		161 61	1 834	4 171376
1993	e	46	100	3114	10	35	185	852	2	51	136	11877	0	18	0	7010	П	25	1414	79984	0	2	0	62977		14 17	179 1835	170666
1994	00	46	300	3114	15	33	281	852	E	50	399	11669	1	18	672	7010	0	25	0	80619	0	2	0	63948	_	26 178	8 1652	2 172064

														ALLAI	ALB	LBERTA	A	(			ŝ			ľ	ÿ	i.
OTHER TYPES			M	ATER	WATER POINTS	S		HAMLET	LETS			VILL	VILLAGES		-	-	<b>COWNS</b>			ľ	CITIES			N	ALL SITES	
Pop. Pop	Pop		Sites Sites	Silles	Pop.	Pop.	Sites	Sites	Pop.	Pop.	Sites	Sites	Pop.	Pop	Sites	Sites	Pop.	Pop.	Sites		Pop.		Sites	Sites	Pop.	Pop.
>10% Total	2	tal	>10%	Total	>10% Total >10%	Total	>10%	Total	Total >10%	Total	>10%	Total	>10%	Total	>10%	Total	>10%	Total	>10%	Total	Total >10%	Total	>10%	Total	>10%	Total
0		0	23	49	662	1367	35	124	5227	50390	13	116	4204	44618	5	115	1221	321839	0	15	0	1568442	91	425	17314	1986807
1225 1		14635	28	51	532	1390	30	127	3728	50476	14	115	4291	44648	9	111	4485	314667	0	15	0	1592694	120	642	15021	2030791
1678	2	24869	22	50	455	1390	20	132	2029	51390	80	118	2129	44648	•	111	4364	323790	0	15	0	1639914	81	662	10064	2089911
1095	C4	28741	18	47	442	1390	80	139	627	51140	٢	117	2735	44648	1	111	542	324799	0	15	0	1658782	83	700	6441	2113410
745	2	28634	14	46	331	1310	12	143	1439	51271	s	811	1910	44781	2	III	2139	330563	0	15	0	1689198	19	111	6559	2149616
100	C4	23526	14	45	305	1080	10	138	729	50709	s	118	2063	44706	L	III	1414	333162	0	15	•	1712736	39	602	4611	2169778
800	2	22370	22	43	501	1080	14	137	1256	50631	п	119	3812	44706	~	112	5939	340416	0	15	0	1728743	89	999	12308	2192461

 Poor samples are those mee * Poor samples are those meeting the following criteria : Fecal Coliforms > 0 Total Coliforms > 0

Total Coliforms > 0 Colonies too numerous to count Confluent growth

TABLE 14: NUMBER OF FACILITIES AND PEOPLE SERVED WHERE MORE THAN 10 % OF WATER SAMPLES WERE POOR* IN A SINGLE YEAR SUMMARY OF THE OTHER TYPES CATEGORY
--------------------------------------------------------------------------------------------------------------------------------------------------------------

	_	_								
	Summer Villages	Pop.	Total	0	0	0	0	0	0	0
		Pop.	>10%	0	Q	0	0	0	0	0
		Sites	Total	0	0	-	4	-	-	-
		Sites	>10%	•	0	0		0	•	_
		Pop.	Total	•	23	23	23	23	23	23
	Sub-divisions	Pop.	>10%	0	0	0	0	0	0	-
			. Total >10%	0	1	-	1	2	3	7
		Sites	>10%	0	•	0	0	•	•	•
	Schools	.d	tal		6	65	69	<u> </u>	=	
			% Total		349	349	349	216	141	141
		's Pop	al >105	0	100	•	0	100	100	0
		ss Site	% Tot		19	20	20	22	17	17
		Site	>10%	•	œ	2	ŝ	4	1	~
	Provincial Parks	Pop.	Total	0	0	0	0	0	0	_
				0	0	0	0	0	0	
		ites P(	>10% Total >10%	0	5	4	5	80	00	
BS	5	ites Si	10% T	0	-	~	e	I	0	2
z	-	\$	^							-
		Pop.	Total	0	0	0	0	0	0	•
		Pop.	>10%	0	0	0	0	0	٥	•
		Sites	Total >10%	-	4	4	-	*	~	5
		Sites	>10%	0	-	0	0	-	0	0
	Mobile Home Parks	Pop.	Total	0	0001	1030	1030	0501	450	450
			l >10% T	0	530 1	200 1	350 1	150 1	0	300 4
		Sites Pop.	otal >	0	5	5 2	5	5 1	5	2 3
	Mot	Sites S	>10% Total	0	ę	I	2	1	0	-
			~							
	Industries			0	0	0	2500	2500	2500	2500
		Sites Pop.	>10% Total >10%	0	0	0	0	0	0	0
		Sites	<ul> <li>Total</li> </ul>	0	0	0	11	12	11	Ξ
		Sites	>109.	•	٥	0	3	0	0	-
	Colonies	Pop.	Total	0	0	0	0	0	0	-
		Pop.	>10%	0	•	0	0	0	0	•
	Huterite Colonies	Sites Sites Pop.	>10% Total >10%	0	0	0	ð	Ð	0	-
	تد	Siles	>10%	-	•	0	0	0	0	٥
YEAR				1988	6861	066 I	1661	1992	1993	1994

	Γ	-	-		-			Ł.	-	_
	es	Pop.	Total	0	578	578	578	578	578	0
	Summer Villages	Pop.	>10%	0	0	578	0	0	0	0
	Sumn			0	1	3	8	e	e	5
		Sites	>10%	0	0	1	-	0	0	-
	Sub-divisions	Pop.	Total	0	1622	1608	1608	1608	1608	1608
		Pop.	>10%	0	0	13	0	\$	0	0
	Sub-	Sites	Total >10%	0	28	29	33	34	32	34
		Sites	>10%	0	-	æ	0	-	0	e
		Pop.	Total	0	7193	7539	7539	7406	3668	2640
	Schools	Pop.	>10%	0	130	161	255	400	100	0
	Sc	Sites	Total	0	127	128	130	132	16	8
		Sites	>10%	0	19	12	п	12	1	9
	8	Pop.	Total	0	100	10303	10303	10303	10303	10303
A	Provincial Parks	Pop.	>10%	0	0	0	0	0	0	0
ERT/	Provir	Sites	Total	0	19	22	22	25	27	27
ALL ALBERTA		Sites	>10%	0	s	00	s	e	7	9
ALL		Pop.	Total	0	1257	1260	1260	1260	1260	1710
	Other	Pop.	>10%	0	0	0	0	0	0	0
		Sites	Total	0	27	33	28	29	35	37
		Sites	>10%	•	4	e	8	7	4	0
	s	Pop.	Total	0	2530	2130	2130	2130	1250	1250
	Mobile Home Parks			0	066	200	350	150	0	300
	obile Hc	Sites Sites Pop.	Total	0	13	12	12	12	s	\$
	X	Sites	>10%	0	9	-	2	1	0	-
		Pop.		0	0	0	3812	3838	3538	3538
	Industries	Pop.	>10%	0	0	0	300	0	0	500
	Indu	Sites Pop.	Total	0	0	0	41	42	40	40
		Sites	>10%	•	0	0	S	s	3	4
	Huterite Colonies	Pop.	Total	0	1355	1451	1511	1121	1321	1321
		Pop.	>10%	•	165	96	190	190	0	0
		Sites Sites Pop.	Total	0	15	16	18	18	12	12
	H	33	%	~	s		3	4	0	-
		Site	2	-						

*

Poor samples are those meeting the following criteria : Fecal Coliforms > 0 Total Coliforms > 0 Colonies too numerous to count Confinent growth

Table 15: Listing of All NRBS Facilities With the Annual Microbial Sampling Summary

Table 15: Listing of Al										
LOCATION	YEAR	STATUS		CL2	POPULATION		TOTSAM	TC>10,FC>0	% Coliform pos.	% POOR
ALPAC MILL (BOYLE)	1991	1	S	*	0	48	108	6	15%	18%
ALPAC MILL (BOYLE)	1992	1	S	*	0	48	71	0	1%	1%
ALPAC MILL (BOYLE)	1993	1	S	*	0	48	44	0	0%	0%
ALPAC MILL (BOYLE)	1994	1	S	*	0	48	42	0	0%	0%
ALTA.NEWSPRINT MILL,WH	1991	1	G		0	48	116	0	0%	6%
ALTA.NEWSPRINT MILL,WH	1992	1	G	*	0	48	12	0	0%	0%
ALTA.NEWSPRINT MILL,WH	1993	1	G	*	0	48	2	0	0%	0%
ALTA.NEWSPRINT MILL,WH	1994	1	G	*	0	48	1	0	0%	0%
AMOCO - EDSON	1991	1	S	*	0	48	0	0		
AMOCO - EDSON	1992	1	S	*	0	48	0	0		
AMOCO - EDSON	1993	I	S	*	0	48	1	0	0%	0%
AMOCO - EDSON	1994	I	S	*	0	48	0	0		
ANZAC SCHOOL	1989	S	G	*	75	24	45	0	0%	0%
ANZAC SCHOOL	1990	S	G	*	75	24	26	0	0%	0%
ANZAC SCHOOL	1991	S	G	*	75	24	2	0	0%	0%
ANZAC SCHOOL	1992	S	G		75	24	4	0	0%	0%
ATHABASCA	1988	Т	S	*	1975	48	52	0	0%	0%
ATHABASCA	1989	Т	S	*	1975	48	53	0	0%	2%
ATHABASCA	1990	Ť	s	*	1975	48	59	0	5%	5%
ATHABASCA	1991	Ť	s	*	1975	48	61	1	2%	7%
ATHABASCA	1992	Ť	s	*	1975	48	51	0	0%	0%
ATHABASCA	1993	Ť	s	*	1975	48	65	0	0%	0%
ATHABASCA	1994	Ť	s	*	1975	48	42	õ	0%	0%
ATIKAMEG SCHOOL	1992	s	s	*	0	48	2	0	0%	0%
ATIKAMEG SCHOOL	1992	S	S		0	48	2 4	0	0%	0%
ATIKAMEG SCHOOL	1994	S	s	*	0	48	4	0	0%	0%
BARRHEAD	1988	т	S	*	3991	48	52	0	0%	2%
BARRHEAD	1989	Ť	S	*	4014	48	52	0		
				*			76		0%	0%
BARRHEAD	1990	T	S	-	4014	48		0	4%	4%
BARRHEAD	1991	Ţ	S		4014	48	74	0	1%	1%
BARRHEAD	1992	T	S		4014	48	61	0	0%	0%
BARRHEAD	1993	Т	S	*	4014	48	53	0	0%	0%
BARRHEAD	1994	т	S	*	4160	48	45	0	0%	0%
BEAR CANYON SCHOOL	1989	S	S	*	0	24	38	0	0%	16%
BEAR CANYON SCHOOL	1990	S	S	*	0	24	23	0	0%	5%
BEAR CANYON SCHOOL	1991	S	S	*	0	24	3	0	0%	0%
BEAR CANYON SCHOOL	1992	S	S	*	0	24	0	0		
BEAR CANYON SCHOOL	1993	S	S	*	0	24	3	0	0%	0%
BEAR CANYON SCHOOL	1994	S	S	*	0	24	0	0		
BEAR CANYON WP	1988	WP	S	*	9	24	49	0	3%	11%
BEAR CANYON WP	1989	WP	S	*	9	24	47	0	0%	4%
BEAR CANYON WP	1990	WP	S	*	9	24	53	1	17%	20%
BEAR CANYON WP	1991	WP	S	*	9	24	49	0	13%	14%
BEAR CANYON WP	1992	WP	s	*	9	24	49	1	8%	8%
BEAR CANYON WP	1993	WP	s	*	9	24	50	1	4%	6%
BEAR CANYON WP	1994	WP	s		9	24	46	4	16%	18%
BEAVERLODGE	1988	Т	s	*	1808	48	66	0	2%	2%
BEAVERLODGE	1989	Ť	s	*	1808	48	62	0	3%	3%
BEAVERLODGE	1999	Ť	S	*	1808	48	63	0	3% 4%	5%
BEAVERLODGE	1990	Ť	S		1808	48	67	2	4% 5%	
	1991 1992	T	S	*	1808	40 48	63			5%
BEAVERLODGE		T		*	1808			1	3%	5% 29/
BEAVERLODGE	1993		S			48	60 77	1	2%	2%
BEAVERLODGE	1994	Т	S	•	1808	48	77	0	4%	4%
BERWYN	1988	V	G		661	48	52	0	0%	0%
BERWYN	1989	V	G		661	48	51	0	0%	0%
BERWYN	1990	V	G		661	48	52	0	0%	0%
BERWYN	1991	V	G		661	48	53	0	0%	0%
BERWYN	1992	V	G		661	48	51	0	0%	0%
BERWYN	1993	V	G		661	48	55	0	4%	4%
BERWYN	1994	V	G		661	48	82	0	3%	5%
BEZANSON SCHOOL	1989	S	G		0	24	17	0	29%	29%
BEZANSON SCHOOL	1990	s	G		Ō	24	11	Ő	0%	0%
BEZANSON SCHOOL	1991	s	G		õ	24	9	0	22%	22%
BEZANSON SCHOOL	1992	s	G		0	24	12	0	0%	8%
	1332	3	9		0	24	12	U	070	070

Table 15: Listing of All NRBS Facilities With the Annual Microbial Sampling Summary

Table 15: Listing of Al	I NKR	S Facilit		1th t				<u>g Summa</u>	ry	
LOCATION	YEAR	STATUS		CL2	POPULATION		TOTSAM	TC>10,FC>0	% Coliform pos.	% POOR
BEZANSON SCHOOL	1993	S	G		0	24	4	0	0%	0%
BEZANSON SCHOOL	1994	S	G		0	24	4	0	0%	0%
BISHOP ROUTHIER (PEAVINE	1992	S	G	*	0	48	30	0	0%	0%
BISHOP ROUTHIER (PEAVINE	1993	S	G	*	0	48	15	0	0%	0%
BISHOP ROUTHIER (PEAVINE	1994	S	G	*	0	48	35	1	3%	6%
BLUE RIDGE	1988	Н	G	*	260	48	52	0	0%	8%
BLUE RIDGE	1989	н	G	*	260	48	52	0	0%	6%
BLUE RIDGE	1990	Н	G	*	260	48	47	0	0%	4%
BLUE RIDGE	1991	н	G	*	260	48	56	0	0%	8%
BLUE RIDGE	1992	н	G	- ÷.	260	48	61	1	2%	14%
BLUE RIDGE	1993	н	G	*	260	48	53	0	0%	0%
BLUE RIDGE	1994	н	G	*	260	48	42	0	0%	0%
BLUEBERRY MOUNTAIN	1989	S	S	*	0	24	17	1	12%	12%
BLUEBERRY MOUNTAIN	1990	S	S	*	0	24	9	0	0%	11%
BLUESKY	1988	н	S	*	139	48	52	0	0%	2%
BLUESKY	1989	н	S	*	139	48	50	õ	0%	2%
BLUESKY	1990	н	s	*	139	48	52	õ	0%	2%
BLUESKY	1991	н	s	*	139	48	51	0	0%	0%
BLUESKY	1991	Н	S	*	139	48	56	0	0%	0%
BLUESKY	1992	н	S		139	48	53	0	0%	0%
BLUESKY	1993	Н	S	*	139	40 48	85	0	1%	0% 1%
BONANZA	1994 1989	п S	5 5&G		0	40 24	85 18	0	28%	28%
BONANZA BONANZA	1989	S	S&G	*	0	24 24	20	0		
BONANZA	1990	S	5&G 5&G	*	0	24 24	20 19	0	26% 0%	30% 6%
BONANZA	1991	S	5&G	*	0	24	25	0		0% 8%
	1992	S	S&G	*	0	24	25 6	0	8%	
BONANZA		S			0				0%	0%
BONANZA	1994		S&G		0	24	10	0	0%	0%
BORGEL WHITELAW	1988	WP WP	G G		0	24 24	31 27	0	4%	4%
BORGEL WHITELAW	1989				-				0%	0%
BORGEL WHITELAW	1990	WP	G		0	24	25	0	0%	0%
BORGEL WHITELAW	1991	WP	G		0	24	24	0	8%	8%
BORGEL WHITELAW	1992	WP	G		0	24	14	0	0%	0%
BORGEL WHITELAW	1993	WP	G		0	24	13	0	0%	0%
BORGEL WHITELAW	1994	WP	G		0	24	0	0		
BOYLE	1988	V	S		704	48	57	0	4%	11%
BOYLE	1989	V	S	*	704	48	56	0	2%	6%
BOYLE	1990	V	S	*	704	48	50	0	0%	6%
BOYLE	1991	V	S	*	704	48	48	0	0%	0%
BOYLE	1992	V	S	*	704	48	51	1	4%	4%
BOYLE	1993	V	S	*	704	48	47	0	0%	0%
BOYLE	1994	V	S	*	704	48	46	0	0%	0%
BROWNVALE	1988	н	G		150	48	48	0	4%	4%
BROWNVALE	1989	Н	G		150	48	54	0	2%	6%
BROWNVALE	1990	н	G		150	48	62	0	28%	28%
BROWNVALE	1991	Н	G		150	48	55	0	6%	6%
BROWNVALE	1992	н	G		150	48	47	0	0%	2%
BROWNVALE	1993	н	G		150	48	50	1	4%	4%
BROWNVALE	1994	н	G		150	48	52	2	10%	15%
BRULE	1988	н	S	*	82	48	46	0	0%	0%
BRULE	1989	Н	S	*	82	48	45	2	4%	4%
BRULE	1990	н	S	*	82	48	67	0	0%	0%
BRULE	1991	н	S	*	82	48	60	0	0%	0%
BRULE	1992	Н	S	*	82	48	53	0	0%	0%
BRULE	1993	н	S	*	82	48	52	0	0%	0%
BRULE	1994	Н	S	*	82	48	44	0	0%	0%
BUFFALO HEAD PRAIRIE SC	1989	S	G		0	24	88	0	3%	3%
BUFFALO HEAD PRAIRIE SC	1990	S	G	*	0	24	87	0.	0%	0%
BUFFALO HEAD PRAIRIE SC	1991	S	G	*	0	24	45	0	0%	0%
BUFFALO HEAD PRAIRIE SC	1992	S	G	*	0	24	43	0	0%	0%
BUFFALO HEAD PRAIRIE SC	1993	S	G	*	0	24	42	0	0%	0%
BUFFALO HEAD PRAIRIE SC	1994	S	G	*	0	24	30	0	0%	0%
CADOMIN	1988	WP	G		114	48	34	0	6%	6%
CADOMIN	1989	WP	G		114	48	38	0	22%	24%
CADOMIN	1990	WP	G		114	48	61	0	9%	9%

Table 15: Listing of All NRBS Facilities With the Annual Microbial Sampling Summary

Table 15: Listing of A	All NRBS	5 Facilit	ies W	ith th	ne Annual N	Aicrobial	Sampling	g Summa	ry	
LOCATION	YEAR	STATUS	TYPE	CL2	POPULATION		TOTSAM	TC>10,FC>0	% Coliform pos.	% POOR
CADOMIN	1991	WP	G		114	48	61	1	3%	3%
CADOMIN	1992	WP	G		114	48	53	0	4%	4%
CADOMIN	1993	WP	G		114	48	48	0	2%	2%
CADOMIN	1994	WP	G		114	48	41	0	2%	2%
CADOTTE LAKE	1989	Н	S	*	157	48	59	0	0%	3%
CADOTTE LAKE	1990	н	S	*	157	48	53	0	0%	0%
CADOTTE LAKE	1991	Н	S	*	157	48	50	0	0%	0%
CADOTTE LAKE	1992	н	S	*	157	48	49	1	2%	2%
CADOTTE LAKE	1993	н	S	*	157	48	54	0	2%	2%
CADOTTE LAKE	1994	Н	S	*	157	48	89	0	0%	0%
CALLING LAKE	1988	Н	S	*	330	48	54	0	0%	6%
CALLING LAKE	1989	н	s	*	330	48	50	0	0%	2%
CALLING LAKE	1990	н	s	*	330	48	50	0 0	0%	6%
CALLING LAKE	1991	н	s	*	330	48	50	0	0%	0%
CALLING LAKE	1992	н	s	*	330	48	51	õ	0%	0%
	1992	н	s	*	330	48	53	0	0%	0%
	1993	Н	s	*	330	48	43	0	0%	0%
	1994	Н	S	*	145	48	43	0	0%	0%
CANYON CREEK	1989	Н	S	*	145	48	49 50	0	0%	0%
				*	145		57	0		
	1990	Н	S	*		48			0%	2%
CANYON CREEK	1991	Н	S	+	145	48	60 51	0	0%	4%
CANYON CREEK	1992	н	S	-	145	48	51 49	0	2%	6%
CANYON CREEK	1993	Н	S		145	48		0	0%	0%
CANYON CREEK	1994	Н	S	*	145	48	63	1	2%	3%
	1989	S	S	*	0	24	2	0	0%	0%
CHIP LAKE	1990	S	S	*	0	24 .	0	0		
CHIP LAKE	1991	S	S	÷	0	24	0	0		160/
CHIP LAKE	1992	S	S	-	0	24	19	2	15%	15%
CHISHOLM	1988	Н	G		100	24	4	0	0%	25%
CHISHOLM	1989	Н	G		100	24	6	0	0%	17%
CHISHOLM	1990	н	G		100	24	2	0	0%	0%
CHISHOLM	1991	Н	G	-	100	24	3	0	0%	0%
CHISHOLM	1992	н	G		100	24	1	0	0%	0%
CLAIRMONT	1988	н	G	*	950	48	53	0	4%	12%
CLAIRMONT	1989	н	G	*	950	48	70	0	0%	0%
CLAIRMONT	1990	н	G	*	950	48	84	0	1%	3%
CLAIRMONT	1991	н	G		950	48	76	0	0%	0%
CLAIRMONT	1992	н	G	*	950	48	78	0	0%	0%
CLAIRMONT	1993	н	G	*	950	48	66	1	2%	<b>6%</b>
CLAIRMONT	1994	Н	G	*	950	48	42	0	0%	0%
CLEARDALE	1991	н	S	*	50	48	28	0	0%	0%
CLEARDALE	1992	н	S	*	50	48	49	0	0%	0%
CLEARDALE	1993	н	S	*	50	48	51	0	0%	0%
CLEARDALE	1994	н	S	*	50	48	44	0	0%	0%
COLINTON	1988	н	G		126	48	55	0	2%	7%
COLINTON	1989	Н	G	*	126	48	62	0	0%	7%
COLINTON	1990	н	G		126	48	63	0	0%	0%
COLINTON	1991	н	G	*	126	48	63	0	0%	0%
COLINTON	1992	н	G	*	126	48	66	0	0%	0%
COLINTON	1993	н	G	*	126	48	51	0	0%	0%
COLINTON	1994	H	G	*	126	48	50	0	2%	2%
CONKLIN	1989	S	G	-	133	24	3	0	0%	0%
CONKLIN	1990	S	G	*	133	24	1	0	0%	0%
CONKLIN	1991	S	G		133	24	8	0	0%	0%
CONKLIN	1992	V	G	*	133	24	6	0	0%	0%
CONKLIN	1993	V	G		133	24	9	0	0%	0%
CONKLIN	1994	V	G	1	133	24	37	0	0%	0%
CROOKED CREEK	1988	WP	G		0	24	51	0	2%	2%
CROOKED CREEK	1989	WP	G		0	24	51	0	4%	4%
CROOKED CREEK	1990	WP	G		0	24	51	0	0%	0%
CROOKED CREEK	1991	WP	G		0	24	53	0	0%	0%
CROOKED CREEK	1992	WP	G		0	24	51	0	0%	0%
CROOKED CREEK	1993	WP	G		0	24	55	0	0%	2%
CROOKED CREEK	1994	WP	G		0	24	49	0	0%	8%

Table 15: Listing of All NRBS Fa	acilities With th	ne Annual Microbial	Sampling Summary

Table 15: Listing of Al							·	<u></u>		
LOCATION	YEAR	STATUS	TYPE	CL2	POPULATION		TOTSAM	TC>10,FC>0	% Coliform pos.	% POOR
CYNTHIA	1988	н	G		56	48	35	0	0%	3%
CYNTHIA	1989	Н	G		56	48	53	0	17%	17%
CYNTHIA	1990	Н	G		56	48	57	0	5%	5%
CYNTHIA	1991	н	G		56	48	53	0	0%	15%
CYNTHIA	1992	н	G	*	56	48	62	0	4%	21%
CYNTHIA	1993	Н	G	*	56	48	47	0	0%	13%
CYNTHIA	1994	н	G		56	48	38	0	0%	3%
DAISHOWA, PEACE RIVER P	1991	1	G		0	48	52	0	0%	0%
DAISHOWA, PEACE RIVER P	1992	i	G	*	0	48	53	0	0%	0%
DAISHOWA, PEACE RIVER P	1993	l	G		0	48	47	0	0%	0%
DAISHOWA, PEACE RIVER P	1994	I	G	*	0	48	42	0	0%	0%
DAPP	1989	S	G		O	24	1	0	0%	0%
DAPP	1990	S	G		0	24	2	0	0%	0%
DAPP	1991	S	G		0	24	0	0		
DAPP	1992	S	G		0	24	0	0		
DEADWOOD SCHOOL	1989	S	S	*	0	24	0	0		
DEADWOOD SCHOOL	1990	S	S	*	0	24	0	0		
DEADWOOD SCHOOL	1991	S	S	*	0	24	D	0		
DEADWOOD SCHOOL	1992	S	s	*	0	24	0	0		
DEADWOOD SCHOOL	1993	S	S	*	0	24	0	0		
DEADWOOD SCHOOL	1994	S	S	*	0	24	Ō	õ		
DEADWOOD WP	1988	WP	S&G	*	13	24	28	0	0%	0%
DEADWOOD WP	1989	WP	S&G	*	13	24	28	0	4%	4%
DEADWOOD WP	1990	WP	S&G	+	13	24	25	õ	0%	0%
DEADWOOD WP	1991	WP	S&G		13	24	27	õ	11%	11%
DEADWOOD WP	1992	WP	S&G		13	24	31	4	32%	32%
DEADWOOD WP	1993	WP	5&G		13	24	29	2	18%	21%
DEADWOOD WP	1994	WP	5&G	*	13	24	18	0	6%	6%
DEBOLT	1988	н	G	*	117	48	51	0	0%	10%
DEBOLT	1989	н	G	*	117	48	55	õ		
DEBOLT	1989	Н	G	*	117	48	54	0	0%	<b>5%</b>
									0%	2%
DEBOLT	1991	Н	G		117	48	53	0	0%	0%
DEBOLT	1992	н	G	*	117	48	53	0	2%	6%
DEBOLT	1993	Н	G	*	117	48	58	0	0%	2%
DEBOLT	1994	Н	G	-	117	48	53	0	0%	4%
DEER HILL	1988	WP	G		0	24	29	0	11%	11%
DEER HILL	1989	WP	G		0	24	24	0	0%	0%
DEER HILL	1990	WP	G		0	24	29	0	0%	4%
DEER HILL	1991	WP	G		0	24	27	0	0%	0%
DEER HILL	1992	WP	G		0	24	22	0	0%	0%
DEER HILL	1993	WP	G		0	24	20	0	0%	0%
DEER HILL	1994	WP	G		0	24	1	0	0%	0%
DESMARAIS	1988	н	S	*	350	48	52	0	4%	6%
DESMARAIS	1989	н	S	*	350	48	50	0	0%	0%
DESMARAIS	1990	Н	S	*	350	48	52	0	0%	0%
DESMARAIS	1991	Н	S	*	350	48	52	0	0%	0%
DESMARAIS	1992	н	S	*	350	48	49	0	0%	0%
DESMARAIS	1993	Н	S	*	350	48	63	0	0%	0%
DESMARAIS	1994	н	S	*	350	48	77	0	0%	0%
DIXONVILLE 1	1988	н	G	*	74	48	50	0	0%	0%
DIXONVILLE 1	1989	н	G	*	74	48	50	0	5%	11%
DIXONVILLE 1	1990	н	G	*	74	48	34	0	0%	3%
DIXONVILLE 1	<b>1</b> 991	н	G	*	74	48	63	1	3%	5%
DIXONVILLE 1	1992	н	G	*	74	48	95	0	1%	1%
DIXONVILLE 1	1993	н	G	*	74	48	87	0	1%	2%
DIXONVILLE 1	1994	н	G	*	74	48	78	0	0%	0%
DIXONVILLE 2	1988	WP	G		0	24	29	0	4%	18%
DIXONVILLE 2	1989	WP	G		D	24	32	0	17%	39%
DIXONVILLE 2	1990	WP	G		Ō	24	30	õ	10%	10%
DIXONVILLE 2	1991	WP	G		0	24	29	1	7%	10%
DIXONVILLE 2	1992	WP	Ğ		0	24	25	0	4%	4%
DIXONVILLE 2	1993	WP	Ğ		õ	24	25	0	0%	4%
DIXONVILLE 2	1994	WP	G		ō	24	23	0	5%	0% 5%
DONNELLY	1988	V	s		405	48	55	1	5%	5%
and and a set of the laster t	1000	v	9				55	1	J 70	570

Table 15: Listing of All NRBS Facilities With the Annual Microbial Sampling Summary

Table 15: Listing of Al	INKR		ies N	/ith t	he Annual N	Vicrobial	Sampling	g Summa	ry	
LOCATION	YEAR	STATUS	ΤነΈΕ	CL2	POPULATION	NO_REQD	TOTSAM	TC>10,FC>0	% Coliform pos.	% POOR
DONNELLY	1989	V	S	*	405	48	51	0	0%	2%
DONNELLY	1990	V	Ś	*	405	48	65	0	2%	3%
DONNELLY	1991	V	S	*	405	48	73	0	1%	1%
DONNELLY	1992	V	S	*	405	48	71	0	2%	2%
DONNELLY	1993	V	S		405	48	81	2	3%	3%
DONNELLY	1994	V	S	*	405	48	89	0	1%	1%
DR. MARY JACKSON	1989	S	G	*	0	24	46	0	0%	2%
DR. MARY JACKSON	1990	S	G	*	0	40	51	0	2%	7%
DR. MARY JACKSON	1991	S	G	*	0	40	48	0	0%	0%
DR. MARY JACKSON	1992	S	G	*	D	40	72	0	1%	1%
DR. MARY JACKSON	1993	S	G	*	0	40	39	0	3%	3%
DR. MARY JACKSON	1994	S	G	*	0	40	67	0	0%	3%
DUNVEGAN PROV.REC.PK.	1992	0	G	*	0	24	79	0	0%	1%
DUNVEGAN PROV.REC.PK.	1993	0	G	*	0	24	1	0	0%	0%
DUNVEGAN PROV.REC.PK.	1994	0	G		0	24	50	0	0%	0%
EAGLESHAM	1988	V	S	w	191	48	34	0	0%	0%
EAGLESHAM	1989	V	S	*	172	48	35	0	0%	0%
EAGLESHAM	1990	v	S	*	172	48	44	0	0%	0%
EAGLESHAM	1991	v	s	*	172	48	54	0	0%	0%
EAGLESHAM	1992	v	S	*	172	48	52	0	0%	2%
EAGLESHAM	1993	v	S	*	172	48	54	0	0%	0%
EAGLESHAM	1995	v	S		172	48	82	1	1%	1%
EAST MANNING	1988	ŴP	s		0	24	26	0	0%	4%
EAST MANNING	1989	WP	s	*	õ	24	26	0	0%	8%
EAST MANNING	1989	WP	S		õ	24	28	0	14%	14%
EAST MANNING	1990	WP	S	*	0	24	32	0	16%	19%
	1991	WP	S	*	0	24	24	0	9%	9%
EAST MANNING		WP	S	*	0	24	24	1	9%	9%
EAST MANNING	1993			*	0	—	23 17	0		
EAST MANNING	1994	WP	S	-		24			0%	0%
EAST PRAIRIE SETTLEMT	1989	MS	G		400	48	53	0	0%	0%
EAST PRAIRIE SETTLEMT	1990	MS	G		400	48	56	0	2%	4%
EAST PRAIRIE SETTLEMT	1991	MS	G		400	48	52	0	0%	0%
EAST PRAIRIE SETTLEMT	1992	MS	G		400	48	46	0	0%	0%
EAST PRAIRIE SETTLEMT	1993	MS	G		400	48	44	0	0%	0%
EAST PRAIRIE SETTLEMT	1994	MS	G		400	48	44	1	5%	7%
EDSON	1988	T	G	*	7323	84	91	0	0%	0%
EDSON	1989	T	G	*	7323	96	135	0	0%	4%
EDSON	1990	Т	G	*	7323	96	122	0	1%	5%
EDSON	1991	Т	G		7323	96	141	0	1%	3%
EDSON	1992	Т	G	*	7323	96	107	0	0%	0%
EDSON	1993	Т	G	*	7323	96	105	0	1%	1%
EDSON	1994	Т	G	*	7323	96	100	0	0%	4%
ELMWORTH	1989	S	G	*	0	24	19	0	0%	32%
ELMWORTH	1990	S	G	*	0	24	10	0	10%	10%
ELMWORTH	1991	S	G	*	0	24	6	0	0%	0%
ELMWORTH	1992	S	G	*	0	24	14	0	0%	21%
ELMWORTH	1993	S	G	*	0	24	4	0	0%	0%
EL MWORTH	1994	S	G	*	0	24	12	2	29%	58%
ENILDA	1988	н	S		141	48	42	0	5%	5%
ENILDA	1989	н	S	*	141	48	42	0	0%	0%
ENILDA	1990	н	S	*	141	48	48	0	0%	0%
ENILDA	1991	Н	Ş	*	141	48	48	0	0%	0%
ENILDA	1992	Н	S	*	141	48	49	0	0%	0%
ENILDA	1993	Н	S	*	141	48	46	0	0%	0%
ENILDA	1994	н	S	*	141	48	42	0	0%	0%
ENTWISTLE	1988	V	G	*	478	48	51	0	0%	0%
ENTWISTLE	1989	V	G	*	478	48	59	0	0%	3%
ENTWISTLE	1990	V	G	*	478	48	60	0	0%	0%
ENTWISTLE	1991	V	G	*	478	48	53	0	0%	0%
ENTWISTLE	1992	V	G	*	478	48	48	1	4%	4%
ENTWISTLE	1993	V	G	*	478	48	50	0	0%	0%
ENTWISTLE	1994	V	G	*	478	48	42	0	0%	0%
EUREKA RIVER	1988	WP	G		4	24	33	1	13%	13%
EUREKA RIVER	1989	WP	Ğ		4	24	28	0	0%	0%
		-								

Table 15: Listing of All NRBS Facilities	With the Annual Microbial Sampling Summary	/

Table 15: Listing of All	<u>NKB</u> 2	Facilit		<u>ith</u> tl				<u>g Summa</u>	ry	
LOCATION	YEAR	STATUS	TYPE	CL2	POPULATION	NO REQD	TOTSAM	TC>10,FC>0	% Coliform pos.	% POOR
EUREKA RIVER	1990	WP	G		4	24	28	0	0%	0%
EUREKA RIVER	1991	WP	G		4	24	28	0	0%	0%
EUREKA RIVER	1992	WP	G		4	24	23	0	0%	0%
EUREKA RIVER	1993	WP	G		4	24	20	0	0%	0%
EUREKA RIVER	1994	WP	G		4	24	1	0	0%	0%
EVANSBURG	1988	V	G	*	750	48	52	0	0%	6%
EVANSBURG	1989	V	G	*	750	48	51	0	0%	2%
EVANSBURG	1990	V	G	*	750	48	49	0	0%	0%
EVANSBURG	1991	V	G	*	750	48	49	0	0%	0%
EVANSBURG	1992	V	G	*	750	48	50	0	0%	0%
EVANSBURG	1993	V	G	+	750	48	51	0	0%	0%
EVANSBURG	1994	V	G		750	48	43	0	0%	5%
EVERGREEN PARK.AGR.SO	1989	0	G		0	24	39	0	3%	13%
EVERGREEN PARK, AGR.SO	1990	0	G		0	24	28	0	0%	4%
EVERGREEN PARK, AGR.SO	1991	0	G		0	24	10	0	0%	0%
EVERGREEN PARK, AGR.SO	1992	0	G		0	24	10	0	0%	30%
EVERGREEN PARK, AGR.SO	1993	0	G		0	24	3	0	0%	0%
EVERGREEN PARK, AGR.SO	1994	Ō	Ğ	*	õ	48	Ō	0	• • •	•.•
FAIRVIEW	1988	Ť	S&G	*	3281	48	52	0	0%	2%
FAIRVIEW	1989	Ť	5&G	*	3281	48	53	0	0%	0%
FAIRVIEW	1999	Ť	5&G	*	3281	48	55	0	2%	2%
FAIRVIEW	1990	Ť	S&G	*	3281	48	51	0	2% 0%	2%
FAIRVIEW	1991	Ť	S&G	*	3281	48	53	0	0%	2% 0%
FAIRVIEW	1992	Ť	S&G	*	3281	48	65	0	2%	2%
FAIRVIEW	1993	Ť	5&G		3281	48	93	1	2% 1%	1%
FALHER	1994	Ť	S	*	1178	48	44	0	0%	0%
FALHER	1989	Ť	S	*	1178	48	44	0	0%	
FALHER	1989	Ť	S	*	1178	48	48	0	0%	0% 0%
	1990	Ť	S		1178	48	49 46	0		
FALHER		Ť	S	14.1	1178		48 48	0	0%	0%
FALHER	1992	Т				48 48	40 55		0%	0%
FALHER	1993		S	1.1	1178			0	0%	0%
FALHER	1994	Ť	S	-	1178	48	44	0	0%	0%
FAUST	1988	н	S	*	399	48	51	0	0%	2%
FAUST	1989	н	S	*	399	48	49	0	0%	4%
FAUST	1990	н	S		399	48	52	0	0%	2%
FUST	1991	Н	S	*	399	48	51	0	0%	0%
FAUST	1992	н	S	*	399	48	53	0	0%	0%
FAUST	1993	Н	S	*	399	48	51	0	0%	0%
FAUST	1994	Н	S	*	399	48	49	0	0%	0%
FAWCETT	1988	Н	G	*	144	48	53	0	0%	2%
FAWCETT	1989	Н	G	*	144	48	52	0	4%	4%
FAWCETT	1990	н	G	*	144	48	49	0	0%	0%
FAWCETT	1991	Н	G	*	144	48	50	0	0%	2%
FAWCETT	1992	Н	G	*	144	48	48	0	0%	0%
FAWCETT	1993	н	G	*	144	48	48	0	0%	0%
FAWCETT	1994	Н	G	*	144	48	43	0	5%	5%
FOOTNER LAKE	1988	н	S	*	0	48	48	0	0%	0%
FOOTNER LAKE	1989	н	S	*	0	48	34	0	0%	3%
FOOTNER LAKE	1990	Н	S	*	0	48	53	0	0%	0%
FOOTNER LAKE	1991	Н	S	*	0	48	83	0	0%	0%
FOOTNER LAKE	1992	Н	S	*	0	48	83	0	0%	0%
FOOTNER LAKE	1993	Н	S	*	0	48	81	0	0%	0%
FOOTNER LAKE	1994	Н	S	*	0	48	91	0	0%	0%
FORT ASSINIBOINE	1988	V	G	*	214	48	48	0	0%	0%
FORT ASSINIBOINE	1989	V	G	1.4	214	48	43	0	0%	0%
FORT ASSINIBOINE	1990	V	G	*	214	48	44	0	0%	0%
FORT ASSINIBOINE	1991	V	G	*	214	48	29	0	0%	0%
FORT ASSINIBOINE	1992	V	G		214	48	49	0	0%	0%
FORT ASSINIBOINE	1993	v	G	*	214	48	53	ō	2%	2%
FORT ASSINIBOINE	1994	v	G	*	214	48	41	õ	3%	3%
FORT CHIPEWYAN	1988	Ĥ	s		1200	48	49	õ	0%	0%
FORT CHIPEWYAN	1989	н	ŝ		1200	48	73	õ	2%	5%
FORT CHIPEWYAN	1990	н	s		1200	48	74	2	3%	3%
FORT CHIPEWYAN	1991	н	s	*	1200	48	92	0	0%	0%
		.,	~		.200		~2	~	~/ <b>v</b>	\$ / <b>\$</b>

Table 15: Listing of All NRBS Facilities With the Annual Microbial Sampling Summary

Table 15: Listing of	All NKBS		ies W	ith t				g Summa	ry	
LOCATION	YEAR	STATUS	TYPE	CL2	POPULATION	NO REQD	TOTSAM	TC>10.FC>0	% Coliform pos.	% POOR
FORT CHIPEWYAN	1992	Н	S	*	1200	48	96	0	1%	4%
FORT CHIPEWYAN	1993	Н	S	*	1200	48	79	4	6%	6%
FORT CHIPEWYAN	1994	н	S	*	1200	48	55	2	4%	4%
FORT MACKAY	1988	н	S	*	267	24	69	0	2%	10%
FORT MACKAY	1989	н	S	*	267	48	130	0	0%	2%
FORT MACKAY	1990	Н	S	*	267	48	105	0	0%	0%
FORT MACKAY	1991	н	S	*	267	48	94	0	0%	0%
FORT MACKAY	1992	Н	S	*	267	48	77	0	0%	0%
FORT MACKAY	1993	Н	S	*	267	48	72	1	1%	1%
FORT MACKAY	1994	Н	S	*	267	48	71	0	0%	0%
FORT MCMURRAY	1988	С	S	*	34949	420	655	1	3%	3%
FORT MCMURRAY	1989	С	S	*	33698	408	581	0	0%	1%
FORT MCMURRAY	1990	С	S	*	33698	408	565	0	0%	0%
FORT MCMURRAY	1991	С	S	*	33698	420	541	0	0%	1%
FORT MCMURRAY	1992	С	S		34706	408	560	0	0%	1%
FORT MCMURRAY	1993	С	S	*	34706	420	487	0	0%	0%
FORT MCMURRAY	1994	С	S	*	34706	420	407	0	0%	0%
FORT VERMILION	1988	Ĥ	S		752	48	61	0	0%	0%
FORT VERMILION	1989	н	s		752	48	72	0	0%	0%
FORT VERMILION	1990	н	s.	*	752	48	98	0	0%	1%
FORT VERMILION	1991	н	S	*	752	48	96	1	1%	1%
FORT VERMILION	1992	н	S	*	752	48	101	0	0%	0%
FORT VERMILION	1993	н	s	*	752	48	109	0	0%	1%
FORT VERMILION	1995	н	s	*	752	48	88	0	0%	0%
FOX CREEK	1994	Т	G	*	2068	48	83	0	0%	
		Ť	G	*	2068	48	83 79			3%
FOX CREEK	1989	Ť	G	*				0	1%	3%
FOX CREEK	1990	$\frac{1}{1}$		*	2068	48	68 50	0	0%	0%
FOX CREEK	1991		G	*	2068	48	56	1	2%	2%
FOX CREEK	1992	T T	G	*	2068	48	54	0	0%	2%
FOX CREEK	1993		G	*	2068	48	48	0	0%	2%
FOX CREEK	1994	Т	G	*	2068	48	43	0	0%	0%
GIFT LAKE	1988	Н	S	*	514	48	53	0	33%	41%
GIFT LAKE	1989	Н	S	*	514	48	58	0	4%	14%
GIFT LAKE	1990	н	S	*	514	48	51	0	0%	0%
GIFT LAKE	1991	Н	S	*	514	48	52	0	0%	0%
GIFT LAKE	1992	Н	S		514	48	71	1	1%	1%
GIFT LAKE	1993	Н	S	*	514	48	63	0	0%	0%
GIFT LAKE	1994	Н	S	*	514	48	73	0	0%	0%
GIROUXVILLE	1988	V	S	*	367	48	45	0	0%	2%
GIROUXVILLE	1989	V	S	*	367	48	44	0	0%	2%
GIROUXVILLE	1990	V	S	*	367	48	54	0	0%	7%
GIROUXVILLE	1991	V	S	*	367	48	52	0	0%	0%
GIROUXVILLE	1992	V	S	*	367	48	44	0	0%	0%
GIROUXVILLE	1993	V	S	*	367	48	45	0	0%	0%
GIROUXVILLE	1994	V	S	*	367	48	62	0	0%	0%
GOODWIN	1988	WP	G	*	0	24	50	0	0%	6%
GOODWIN	1989	WP	G	*	0	24	53	0	0%	0%
GOODWIN	1990	WP	G	*	0	24	51	0	0%	2%
GOODWIN	1991	WP	G	*	0	24	54	0	10%	13%
GOODWIN	1992	WP	G	*	0	48	53	0	0%	4%
GOODWIN	1993	WP	G	*	0	48	51	0	0%	0%
GOODWIN	1994	WP	G	*	0	48	46	0	0%	0%
GRANDE CACHE	1988	Т	s	*	3646	48	68	0	0%	0%
GRANDE CACHE	1989	T	s	*	3646	48	65	0	0%	3%
GRANDE CACHE	1990	Ť	S		3646	48	72	0	0%	1%
GRANDE CACHE	1991	Т	s	*	3646	48	67	õ	0%	2%
GRANDE CACHE	1992	Ť	S	*	3646	48	66	Ő	0%	5%
GRANDE CACHE	1993	Ť	ŝ	*	3646	48	62	0	2%	2%
GRANDE CACHE	1994	Ť	ŝ	*	3646	48	81	0	0%	0%
GRANDE PRAIRIE	1988	Ċ	ŝ	*	26648	324	368	0	0%	1%
GRANDE PRAIRIE	1989	č	s	*	27208	324	345	1	1%	1%
GRANDE PRAIRIE	1990	č	s	*	27558	324	371	0	1%	2%
GRANDE PRAIRIE	1991	č	s	*	28350	336	347	1	1%	1%
GRANDE PRAIRIE	1992	c	s	*	28271	336	400	0	0%	0%
	1002	Ç	0		20271	555	400	v	070	070

Table 15: Listing of All NRBS Facilities With the Annual Microbial Sampling Summary

Table 15: Listing of									ry	
LOCATION	YEAR	STATUS		CL2	POPULATION		TOTSAM	TC>10,FC>0	% Coliform pos.	% POOR
GRANDE PRAIRIE	1993	С	S	*	28271	348	414	0	0%	0%
GRANDE PRAIRIE	1994	С	S	*	29242	348	349	0	1%	1%
GRASSLAND	1988	Н	S&G	*	66	48	55	0	0%	4%
GRASSLAND	1989	Н	S&G	*	66	48	69	2	3%	4%
GRASSLAND	1990	Н	S&G	*	66	48	63	0	3%	3%
GRASSLAND	1991	н	S&G	*	66	48	62	0	0%	2%
GRASSLAND	1992	Н	S&G	*	66	48	60	0	0%	0%
GRASSLAND	1993	н	S&G	*	66	48	53	0	0%	0%
GRASSLAND	1994	Н	S&G	*	66	48	46	0	2%	2%
GRIFFIN CREEK	1988	WP	G		0	24	24	0	0%	0%
GRIFFIN CREEK	1989	WP	G		0	24	25	0	0%	0%
GRIFFIN CREEK	1990	WP	G		0	24	25	0	0%	0%
GRIFFIN CREEK	1991	WP	G		0	24	27	0	0%	0%
GRIFFIN CREEK	1992	WP	G		0	24	23	0	0%	0%
GRIFFIN CREEK	1993	WP	G		0	24	25	0	0%	0%
GRIFFIN CREEK	1994	WP	9		0	24	. 21	1	5%	5%
GRIMSHAW	1988	Т	G	*	2625	48	55	1	4%	7%
GRIMSHAW	1989	Т	6	*	2625	48	57	0	2%	2%
GRIMSHAW	1990	Т	G	*	2625	48	56	0	4%	4%
GRIMSHAW	1991	Т	G	*	2625	48	57	0	2%	4%
GRIMSHAW	1992	Т	G	*	2625	48	54	0	0%	4%
GRIMSHAW	1993	Т	G	*	2625	48	50	0	0%	0%
GRIMSHAW	1994	Т	G	*	2625	48	92	1	2%	5%
GROUARD	1988	н	S		490	48	41	0	0%	5%
GROUARD	1989	н	S	*	490	48	42	0	0%	3%
GROUARD	1990	н	S	*	490	48	64	0	3%	6%
GROUARD	1991	Н	S	*	490	48	67	0	0%	0%
GROUARD	1992	н	S	*	490	48	54	0	0%	0%
GROUARD	1993	н	S	*	490	48	46	0	0%	0%
GROUARD	1994	Н	S	*	490	48	48	0	0%	0%
GUY	1988	н	S	*	62	48	50	0	0%	4%
GUY	1989	н	S	*	62	48	48	0	0%	0%
GUY	1990	Н	S	*	62	48	48	0	0%	0%
GUY	1991	н	S	*	62	48	49	0	2%	2%
GUY	1992	Н	S	*	62	48	59	0	0%	2%
GUY	1993	Н	S	*	62	48	87	0	1%	7%
GUY	1994 -	н	S	*	62	48	61	1	2%	5%
HARMON VALLEY	1988	WP	S	*	0	24	24	0	4%	4%
HARMON VALLEY	1989	WP	S	*	0	24	26	0	13%	23%
HARMON VALLEY	1990	WP	S	*	0	24	29	0	17%	34%
HARMON VALLEY	1991	WP	S	*	0	24	28	0	4%	14%
HARMON VALLEY	1992	WP	S	*	0	24	27	0	0%	7%
HARMON VALLEY	1993	WP	S	*	0	24	24	0	0%	0%
HARMON VALLEY	1994	WP	S	*	0	24	24	0	0%	29%
HAWK HILLS	1988	WP	S&G	*	10	24	27	1	4%	19%
HAWK HILLS	1989	WP	S&G	*	10	24	30	0	0%	17%
HAWK HILLS	1990	WP	S&G	*	10	24	35	4	29%	35%
HAWK HILLS	1991	WP	S	*	10	24	50	б	51%	55%
HAWK HILLS	1992	• WP	S	*	10	24	28	1	4%	11%
HAWK HILLS	1993	WP	S	*	10	24	23	0	9%	13%
HAWK HILLS	1994	WP	S	*	10	24	24	1	11%	26%
HIGH LEVEL	1988	Т	S	*	3004	48	67	0	0%	0%
HIGH LEVEL	1989	Т	S	*	3004	48	149	0	0%	3%
HIGH LEVEL	1990	Т	S	12	3004	48	149	0	0%	2%
HIGH LEVEL	1991	Т	S	*	3004	48	144	0	1%	2%
HIGH LEVEL	1992	Т	S	*	3004	48	123	0	1%	1%
HIGH LEVEL	1993	Т	S	*	3004	48	96	0	1%	1%
HIGH LEVEL	1994	Т	S	*	3004	48	107	2	6%	7%
HIGH PRAIRIE	1991	т	S		2817	48	58	0	0%	0%
HIGH PRAIRIE	1992	Т	S	*	2817	48	54	0	0%	0%
HIGH PRAIRIE	1993	Ţ	S	*	2817	48	81	0	0%	0%
HIGH PRAIRIE	1994	T	S	*	2817	48	87	0	0%	0%
HIGH PRAIRIE AIRPORT	1988	AP	S	*	0	24	51	3	10%	10%
HIGH PRAIRIE AIRPORT	1989	AP	S	*	0	24	51	0	2%	4%

LOCATION         YEAL         STATUS         TYTE         C.2.         POPLATION         NO         PEOD         TOTAAM         TS-NO-0         A2%         POPCA           HIGH PRARIE ARPORT         1991         AP         S         0         24         52         0         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%         2%	Table 15: Listing of A	11 NRBS	S Facilit	ies W	⁷ ith t	he Annual N	<b>Microbial</b>	Samplin	g Summa	ry	
IAIGH PRARIE ARPORT       1991       AP       S       *       0       24       52       0       9%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%       2%	LOCATION	YEAR	STATUS	TYPE	CL2	POPULATION	NO REQD	TOTSAM	TC>10,FC>0	% Coliform pos.	% POOR
Hich PRARIE AIPCORT       1952       AP       S       •       0       24       49       0       0%       0%         HIGH PRARIE AIPCORT       1994       AP       S       •       0       24       0       0       2%         HIGH PRARIE AIPCORT       1994       O       S.G       •       0       48       0       0         HIGH PRARIE NW CO-CP       1991       O       S.G       •       0       48       0       0         HIGH PRARIE NW CO-CP       1991       O       S.G       •       0       48       0       0         HIGH PRARIE NW CO-CP       1991       O       S       •       0       48       0       0       1%       1%         HILLARD BAY PROV. PK       1990       PP       G       •       0       48       62       0       3%       3%         HILLARD BAY PROV. PK       1991       PP       G       •       0       48       62       0       3%       3%         HILLARD BAY PROV. PK       1993       D       G       •       0       48       62       0       3%         HILLARD BAY PROV. PK       1993       D	HIGH PRAIRIE AIRPORT	1990		S		0	24		0	2%	6%
IIICE PRAIRE ALRPORT       1934       AP       S       T       0       24       42       1       2%       2%         HIGH PRARE ALRPORT       1934       AP       S       0       48       0       0         HIGH PRARE NW CO-OP       1980       O       S.G       0       48       0       0         HIGH PRARE NW CO-OP       1991       O       S       0       48       0       0         HIGH PRARE NW CO-OP       1983       O       S       0       48       0       0         HIGH PRARE WCO-OP       1983       PP       G       0       48       73       0       1%       4%         HILLARD BAY PROV, PK       1980       PP       G       0       48       62       0       4%       4%         HILLARD BAY PROV, PK       1983       PP       G       0       48       60       0       3%       3%         HILLOP ESTATES       1996       SD       G       23       48       46       0       0%       3%         HILLARD BAY PROV, PK       1994       SD       G       23       48       41       0       0%       3% <td< td=""><td>HIGH PRAIRIE AIRPORT</td><td>1991</td><td>AP</td><td>S</td><td>*</td><td></td><td>24</td><td>52</td><td></td><td>2%</td><td>2%</td></td<>	HIGH PRAIRIE AIRPORT	1991	AP	S	*		24	52		2%	2%
IICAP FORME LAIPPORT         1984         AP         S         0         24         0         0           HIGH PRARIE NW CO-OP         1980         O         SAG         0         48         0         0           HIGH PRARIE NW CO-OP         1991         O         SAG         0         48         0         0           HIGH PRARIE NW CO-OP         1992         O         S         0         48         0         0           HIGH PRARIE NW CO-OP         1994         O         S         0         48         0         0           HILLARD BAY PROV, PK         1990         PP         G         0         48         73         0         4%           HILLARD BAY PROV, PK         1991         PP         G         0         48         62         0         4%           HILLARD BAY PROV, PK         1992         SD         G         2.23         48         44         0         9%         3%           HILLARD BAY PROV, PK         1993         SD         G         2.23         48         44         0         9%         3%           HILLARD BAY PROV, PK         1994         SD         G         2.23         48         <					*						
INICH FORAIRE INV CO-OP         1985         O         \$2.G         •         0         48         0         0           INICH FORAIRE NV CO-OP         1991         O         S         •         0         48         0         0           INICH FORAIRE NV CO-OP         1991         O         S         •         0         48         0         0           INICH FORAIRE NV CO-OP         1933         O         S         •         0         48         0         0           INICH FORAIRE NV CO-OP         1933         O         S         •         0         48         0         0           INICH FORAIRE NV CO-OP         1930         PP         G         0         48         74         0         4%         4%           INICAT REXTREM VCO-VP         1932         PP         G         0         48         60         05         23         48         64         0         7%         3%           INILLARD BAY PROV, PK         1933         SD         G         2.3         48         44         0         P%         2%         3%           INILLARD BAY PROV, PK         1933         SD         G         2.3         48										2%	2%
HIGH PRAIRE         NV CO-OP         1981         O         S K         0         48         0         0           HIGH PRAIRE         NV CO-OP         1923         O         S         0         48         0         0           HIGH PRAIRE         NV CO-OP         1933         O         S         0         48         0         0           HIGH PRAIRE         NV CO-OP         1943         O         S         0         48         0         0           HILLARD BY PROV.PK         1990         PP         G         0         48         79         0         4%         4%           HILLARD BY PROV.PK         1991         PP         G         0         48         62         0         4%         30         3%           HILLARD BY PROV.PK         1994         PP         G         0         48         62         0         4%         38         0         3%         3%           HILLOP STATES         1994         SD         G         2.3         48         44         0         0%         3%           HILLOP STATES         1993         SD         G         2.3         48         44         0											
HIGH PRAIRE NW CO-OP       1991       O       S       •       O       48       O       O         HIGH PRAIRE NW CO-OP       1993       O       S       •       O       48       O       O         HIGH PRAIRE NW CO-OP       1993       O       S       •       O       48       O       O         HILLARD BAY PROV.PK       1990       PP       G       •       O       48       74       O       1%       4%         HILLARD BAY PROV.PK       1991       PP       G       •       O       48       96       O%       0%       0%         HILLARD BAY PROV.PK       1992       PP       G       •       O       48       86       O       3%       3%         HILLARD BAY PROV.PK       1993       SD       G       •       23       48       46       O       0%       3%         HILLARD BAY PROV.PK       1993       SD       G       •       23       48       44       O       0%       2%       3%       3%       3%       1%       1%       1%       1%       1%       1%       1%       1%       1%       1%       1%       1%       1% <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>											
HIGH PRAINE NV CO-OP         1993         O         S         O         48         O         O           HIGH PRAINE NV CO-OP         1994         O         S         O         48         O         O           HILLARG DAY PROV, PK         1990         PP         G         O         48         79         O         4%         4%           HILLARG DAY PROV, PK         1990         PP         G         O         48         62         O         4%         4%           HILLARG DAY PROV, PK         1952         PP         G         O         48         62         O         4%         9%         7%         3%           HILLARD BAY PROV, PK         1953         PP         G         C         O         48         65         O         0%         3%         3%         3%           HILLOP ESTATES         1990         SD         G         2.3         48         44         O         0%         0%         0%         0%         1%         1%         1%         1%         1%         1%         1%         1%         1%         1%         1%         1%         1%         1%         1%         1%         1% <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>											
HIGH PRAINE NV CO-OP         1994         O         S         •         O         48         O         O           HILLARD BAY PROV.PK         1990         PP         G         •         O         48         74         O         1%         1%           HILLARD BAY PROV.PK         1990         PP         G         •         O         48         96         O         0%         0%           HILLARD BAY PROV.PK         1991         PP         G         •         O         48         860         O         0%         0%           HILLARD BAY PROV.PK         1992         PP         G         •         O         48         60         O%         3%           HILLTOP ESTATES         1990         SD         G         •         23         48         44         O%         0%         2%           HILLTOP ESTATES         1993         SD         G         •         23         48         44         O         0%         0%           HILLTOP ESTATES         1993         SD         G         •         23         48         44         O         0%         2%           HILLTOP ESTATES         1994         SD<											
HIGH PRAINE NV CO.OP         199         P         G         *         0         48         74         0         1%         1%           HILLARD BAY PROV.PK         1990         PP         G         *         0         48         79         0         4%         4%           HILLARD BAY PROV.PK         1991         PP         G         *         0         48         62         0         4%         4%           HILLARD BAY PROV.PK         1993         PP         G         *         0         48         68         0         2%         3%           HILLARD BAY PROV.PK         1993         PP         G         *         0         48         68         0         2%         3%           HILLOP ESTATES         1990         SD         G         *         23         48         44         0         0%         2%           HILLOP ESTATES         1991         SD         G         *         23         48         44         0         0%         0%           HILLOP ESTATES         1993         SD         G         *         513         48         450         0         2%         2%           HI											
HILLARD EAY PROV. PK         1990         PP         G         *         0         48         74         0         4%         4%           HILLARD EAY PROV. PK         1991         PP         G         *         0         48         95         0         4%         4%           HILLARD EAY PROV. PK         1932         PP         G         *         0         48         80         0         3%         3%           HILLARD EAY PROV. PK         1933         PP         G         *         0         48         80         0         3%         3%           HILLTOP ESTATES         1990         SD         G         *         23         48         44         0         0%         3%           HILLTOP ESTATES         1991         SD         G         *         23         48         44         0         0%         3%           HILLTOP ESTATES         1993         SD         G         *         23         48         44         0         0%         0%         0%         1%         1%         0%         0%         1%         1%         0%         1%         1%         1%         0         0%         0%								-	-		
HILLARD BAY PROV PK         190         PP         G         •         0         48         79         0         4%         4%           HILLARD BAY PROV, PK         1931         PP         G         •         0         48         62         0         0%         0%           HILLARD BAY PROV, PK         1933         PP         G         •         0         48         62         0         0%         0%           HILLARD BAY PROV, PK         1933         PP         G         •         0         48         58         0         0%         0%           HILLTOP ESTATES         1990         SD         G         •         23         48         44         0         0%         3%           HILLTOP ESTATES         1991         SD         G         •         23         48         41         0         0%         0%           HILLTOP ESTATES         1993         SD         G         •         23         48         41         0         0%         0%           HILLTOP ESTATES         1993         SD         G         •         513         48         52         0         0%         0%										19/	19/
HILLARD BAY PROV PK         191         PP         G         •         0         48         96         0         0%         7%           HILLARD BAY PROV, PK         1932         PP         G         •         0         48         60         0%         3%           HILLIDP ESTATES         1934         PP         G         •         0         48         60         0%         3%           HILLIDP ESTATES         1930         SD         G         •         23         48         40         0         0%         2%           HILLIDP ESTATES         1930         SD         G         •         23         48         41         0         0%         5%           HILLIDP ESTATES         1931         SD         G         •         23         48         41         0         0%         0%           HILLIDP ESTATES         1933         SD         G         •         23         48         41         0         0%         0%           HILLIDP ESTATES         1934         SD         G         •         513         48         52         0         2%         5%           HILLIDP ESTATES         1930											
HILLARD BAY PROV.PK         1932         PP         G         •         0         48         62         0         95         95           HILLARD BAY PROV.PK         1943         PP         G         •         0         48         58         0         256         256           HILLTOP ESTATES         1990         SD         G         •         23         48         50         0         956         356           HILLTOP ESTATES         1991         SD         G         •         23         48         41         0         0%         356           HILLTOP ESTATES         1991         SD         G         •         23         48         41         0         0%         356           HILLTOP ESTATES         1993         SD         G         •         233         48         41         0         0%         0%           HILLTOP ESTATES         1993         V         S         •         513         48         52         0         276         0         0%         0%           HINES CREEK         1993         V         S         •         513         48         40         0         276         276<											
HILLARD BAY PROV. PK         1933         PP         G         0         48         80         0         3%         3%           HILLARD BAY PROV. PK         1934         PP         G         0         48         58         0         0%         3%           HILLOP ESTATES         1990         SD         G         23         48         44         0         0%         3%           HILLOP ESTATES         1990         SD         G         23         48         44         0         0%         3%           HILLOP ESTATES         1993         SD         G         233         48         44         0         0%         0%           HILLOP ESTATES         1994         SD         G         233         48         41         0         0%         0%           HILSC REEK         1993         V         S         513         48         46         0         0%         0%           HINES CREEK         1991         V         S         513         48         48         0         0%         0%           HINES CREEK         1992         V         S         513         48         43         0         0					*						
HILLARD BAY PROV.PK         1994         PP         G         •         0         48         58         0         2%         2%           HILLTOP ESTATES         1990         SD         G         •         23         48         44         0         0%         3%           HILLTOP ESTATES         1991         SD         G         •         23         48         44         0         0%         3%           HILLTOP ESTATES         1993         SD         G         •         23         48         44         0         0%         0%           HILTOP ESTATES         1993         SD         G         •         23         48         48         0         0%         0%           HILTOP ESTATES         1994         V         S         •         513         48         52         0         0%         0%           HINES CREEK         1990         V         S         •         513         48         43         0         2%         2%           HINES CREEK         1991         V         S         •         513         48         43         0         2%         2%           HINTON <t< td=""><td></td><td></td><td></td><td></td><td>*</td><td></td><td></td><td></td><td></td><td></td><td></td></t<>					*						
HILITOP ESTATES         1989         SD         G         23         48         46         0         0%         3%           HILITOP ESTATES         1990         SD         G         23         48         50         0         5%         5%           HILITOP ESTATES         1991         SD         G         23         48         41         0         0%         5%           HILITOP ESTATES         1994         SD         G         23         48         41         0         0%         0%           HILTOP ESTATES         1994         SD         G         23         48         41         0         0%         0%           HINES CREEK         1989         V         S         513         48         52         0         0%         0%           HINES CREEK         1990         V         S         513         48         48         0         0%         0%           HINES CREEK         1993         V         S         513         48         48         0         0%         0%           HINTON         1988         T         S         513         48         48         0         1%					*						
HILLTOP ESTATES         1990         SD         G         •         23         48         50         0         5%         5%         5%           HILLTOP ESTATES         1991         SD         G         •         23         48         41         0         0%         5%           HILLTOP ESTATES         1993         SD         G         •         23         48         41         0         0%         0%           HILTOP ESTATES         1993         SD         G         •         23         48         41         0         0%         0%           HILESCREEK         1983         V         S         •         513         48         52         0         0%         0%           HINESCREEK         1990         V         S         •         513         48         50         0         0%         0%           HINESCREEK         1991         V         S         •         513         48         43         0         2%         2%           HINTON         1983         T         S         9893         120         168         0         16%         15%           HINTON         1993					*						
HILITOP ESTATES         1991         SD         G         •         23         48         44         0         0%         2%           HILITOP ESTATES         1993         SD         G         •         23         48         441         0         0%         0%           HILITOP ESTATES         1993         SD         G         •         23         48         441         0         0%         0%           HILED CESTATES         1993         SD         G         •         213         48         41         0         0%         0%           HINES CREEK         1983         V         S         •         513         48         46         0         2%         2%           HINES CREEK         1991         V         S         •         513         48         43         0         0%         2%           HINES CREEK         1991         V         S         •         513         48         43         0         2%         2%           HINTON         1983         T         S         •         9833         120         129         0         1%         1%           HINTON         1993 <td></td> <td></td> <td></td> <td>G</td> <td></td> <td></td> <td>48</td> <td>50</td> <td>0</td> <td>5%</td> <td></td>				G			48	50	0	5%	
HILLTOP ESTATES         192         SD         G         •         23         48         41         0         0%         5%           HILLTOP ESTATES         1934         SD         G         •         23         48         41         0         0%         0%           HILTOP ESTATES         1934         SD         G         •         23         48         41         0         0%         0%           HINES CREEK         1988         V         S         •         513         48         52         0         0%         0%           HINES CREEK         1990         V         S         •         513         48         50         0         0%         2%           HINES CREEK         1993         V         S         •         513         48         43         0         2%         2%           HINTON         1983         T         S         •         513         48         43         0         2%         2%           HINTON         1983         T         S         •         513         48         43         0         2%         2%           HINTON         1983         T				G			48	44	0	0%	2%
HILTOP ESTATES         1934         SD         G         *         23         48         41         0         0%         0%           HINES CREEK         1988         V         S         *         513         48         52         0         2%         2%           HINES CREEK         1980         V         S         *         513         48         52         0         0%         0%           HINES CREEK         1990         V         S         *         513         48         50         0         2%         2%           HINES CREEK         1991         V         S         *         513         48         43         0         2%         2%           HINES CREEK         1994         V         S         *         513         48         43         0         2%         2%           HINTON         1984         T         S         *         9803         120         168         0         4%         3%           HINTON         1991         T         S         *         9108         120         152         0         1%           HINTON         1993         T         S </td <td></td> <td>1992</td> <td>SD</td> <td>G</td> <td>*</td> <td>23</td> <td>48</td> <td>41</td> <td>0</td> <td>0%</td> <td>5%</td>		1992	SD	G	*	23	48	41	0	0%	5%
HINES CREEK         1988         V         S         *         513         48         52         0         2%         2%           HINES CREEK         1980         V         S         *         513         48         52         0         0%         0%           HINES CREEK         1991         V         S         *         513         48         50         0         0%         2%           HINES CREEK         1993         V         S         *         513         48         50         0         0%         0%           HINES CREEK         1993         V         S         *         513         48         43         0         2%         2%           HINTON         1988         T         S         *         9893         120         129         0         1%         1%           HINTON         1991         T         S         *         9893         120         152         0         0%         1%           HINTON         1993         T         S         *         9108         120         152         0         0%         1%           HOTCHKISS         1993         T <td>HILLTOP ESTATES</td> <td>1993</td> <td>SD</td> <td>G</td> <td>*</td> <td>23</td> <td>48</td> <td>48</td> <td>0</td> <td>0%</td> <td>0%</td>	HILLTOP ESTATES	1993	SD	G	*	23	48	48	0	0%	0%
INTES CREEK         1930         V         S         -         513         48         52         0         275         275           HINES CREEK         1990         V         S         *         513         48         52         0         0%         0%           HINES CREEK         1990         V         S         *         513         48         50         0         0%         2%           HINES CREEK         1991         V         S         *         513         48         43         0         0%         0%           HINES CREEK         1994         V         S         *         513         48         43         0         2%         2%           HINTON         1988         T         S         *         9833         120         129         0         1%         1%           HINTON         1990         T         S         *         9833         120         178         0         1%         1%           HINTON         1991         T         S         *         9108         120         157         0         1%         1%           HINTON         1994         T <td>HILLTOP ESTATES</td> <td>1994</td> <td>SÐ</td> <td>G</td> <td></td> <td>23</td> <td>48</td> <td>41</td> <td>0</td> <td>0%</td> <td>0%</td>	HILLTOP ESTATES	1994	SÐ	G		23	48	41	0	0%	0%
HINES CREEK         1990         V         S         *         513         48         56         0         2%         2%           HINES CREEK         1991         V         S         *         513         48         50         0         0%         2%           HINES CREEK         1993         V         S         *         513         48         43         0         0%         0%           HINES CREEK         1993         V         S         *         513         48         43         0         0%         0%           HINTON         1988         T         S         *         9833         120         129         0         1%         1%           HINTON         1990         T         S         *         9833         120         168         0         4%         5%           HINTON         1991         T         S         *         9108         108         162         0         1%         1%           HINTON         1991         T         S         *         9108         102         157         0         1%         1%           HOTCHKISS         1988         WP <td>HINES CREEK</td> <td>1988</td> <td>V</td> <td>S</td> <td>*</td> <td></td> <td>48</td> <td></td> <td>0</td> <td>2%</td> <td>2%</td>	HINES CREEK	1988	V	S	*		48		0	2%	2%
HINES CREEK         1991         V         S         *         513         48         50         0         9%         2%           HINES CREEK         1992         V         S         *         513         48         48         0         0%         0%         0%           HINES CREEK         1994         V         S         *         513         48         43         0         2%         2%           HINTON         1988         T         S         *         9833         120         168         0         4%         5%           HINTON         1990         T         S         *         9833         120         168         0         4%         5%           HINTON         1991         T         S         *         9108         102         152         0         0%         1%           HINTON         1993         T         S         *         9108         102         157         0         1%         1%           HOTCHKISS         1989         WP         S         *         10         24         27         0         0%         1%           HOTCHKISS         1990	HINES CREEK	1989	V	S	*	513	48	52	0	0%	0%
INNES CREEK         1931         V         S         513         48         50         0         0%         2%           HINES CREEK         1993         V         S         513         48         43         0         0%         0%         0%           HINES CREEK         1994         V         S         513         48         43         0         0%         0%         0%           HINTON         1988         T         S         9893         120         168         0         4%         5%           HINTON         1990         T         S         9893         120         168         0         4%         5%           HINTON         1991         T         S         9893         120         152         0         1%         1%           HINTON         1993         T         S         9108         120         152         0         0%         12%           HINTON         1994         T         S         9108         120         152         0         0%         12%           HOTCHKISS         1989         WP         S         10         24         27         0	HINES CREEK	1990	V								
HINES CREEK         1933         V         S         513         48         43         0         0%         0%           HINES CREEK         1934         V         S         513         48         43         0         0%         0%           HINTON         1988         T         S         5846         103         129         0         1%         1%           HINTON         1989         T         S         9883         120         168         0         4%         5%           HINTON         1990         T         S         9883         120         178         0         1%         1%           HINTON         1991         T         S         99108         108         162         0         1%         1%           HINTON         1993         T         S         9108         102         157         0         1%         1%           HOTCHKISS         1984         WP         S         10         24         27         0         0%         12%           HOTCHKISS         1991         WP         S         10         24         27         0         8%         19%	HINES CREEK	1991	V								
NINES CREEK         1993         V         S         513         48         43         0         2%         2%           HINTON         1988         T         S         513         48         43         0         2%         2%           HINTON         1988         T         S         9893         120         129         0         1%         1%           HINTON         1990         T         S         9893         120         178         0         1%         1%           HINTON         1991         T         S         9803         120         178         0         1%         1%           HINTON         1992         T         S         9108         108         162         0         0%         1%           HINTON         1994         T         S         9108         120         157         0         1%         1%           HOTCHKISS         1988         WP         S         10         24         27         0         0%         12%           HOTCHKISS         1991         WP         S         10         24         39         3         37%         56%											
HINTON         1988         T         S         *         8846         108         129         0         1%         1%           HINTON         1989         T         S         *         9693         120         129         0         1%         2%           HINTON         1990         T         S         *         9693         120         168         0         4%         5%           HINTON         1991         T         S         *         9108         108         162         0         1%         1%           HINTON         1993         T         S         *         9341         120         157         0         1%         1%           HOTCHKISS         1984         T         S         *         9341         120         157         0         1%         1%           HOTCHKISS         1984         WP         S         *         10         24         27         0         0%         12%           HOTCHKISS         1991         WP         S         *         10         24         37         2         21%         41%           HOTCHKISS         1992         WP											
HINTON         1989         T         S         *         9893         120         129         0         1%         2%           HINTON         1990         T         S         *         9883         120         168         0         4%         5%           HINTON         1991         T         S         *         9883         120         168         0         1%         1%           HINTON         1992         T         S         *         9108         108         162         0         1%         1%           HINTON         1993         T         S         *         9108         120         152         0         0%         12%           HOTCHKISS         1988         WP         S         *         10         24         26         0         0%         12%           HOTCHKISS         1990         WP         S         *         10         24         37         2         21%         41%           HOTCHKISS         1991         WP         S         *         10         24         37         2         21%         41%           HOTCHKISS         1991         WP											
HINTON         1990         T         S         *         9893         120         168         0         4%         5%           HINTON         1991         T         S         *         9893         120         178         0         1%         1%           HINTON         1993         T         S         *         9108         120         152         0         0%         1%           HINTON         1993         T         S         *         9108         120         152         0         0%         1%           HINTON         1994         T         S         *         9341         120         157         0         1%         1%           HOTCHKISS         1980         WP         S         *         10         24         27         0         0%         12%           HOTCHKISS         1991         WP         S         *         10         24         29         0         7%         6%           HOTCHKISS         1992         WP         S         *         10         24         21         0         8%         10%           HOTCHKISS         1994         WP											
HINTON       1991       T       S       9893       120       178       0       1%       1%         HINTON       1992       T       S       9108       108       162       0       1%       1%         HINTON       1993       T       S       9108       120       152       0       0%       1%         HINTON       1994       T       S       9341       120       157       0       1%       1%         HOTCHKISS       1988       WP       S       10       24       26       0       0%       12%         HOTCHKISS       1989       WP       S       10       24       27       0       0%       14%         HOTCHKISS       1991       WP       S       10       24       37       2       21%       44%         HOTCHKISS       1993       WP       S       10       24       37       2       21%       48%         HOTCHKISS       1994       WP       S       10       24       37       2       21%       48%         HOTCHKISS       1994       WP       S       10       24       51       0       0%											
HINTON       1992       T       S       9108       108       162       0       1%       1%         HINTON       1993       T       S       9108       120       152       0       0%       1%         HINTON       1994       T       S       9341       120       157       0       0%       1%         HOTCHKISS       1988       WP       S       10       24       26       0       0%       12%         HOTCHKISS       1989       WP       S       10       24       27       0       0%       12%         HOTCHKISS       1990       WP       S       10       24       29       0       7%       14%         HOTCHKISS       1991       WP       S       10       24       37       2       21%       41%         HOTCHKISS       1993       WP       S       10       24       41       5       32%       48%         HOTCHKISS       1993       WP       S       10       24       41       5       32%       48%         HYTHE OFF/LB       1990       V       G       0       24       51       0											
HINTON       1993       T       S       9108       120       152       0       0%       1%         HINTON       1994       T       S       9341       120       157       0       1%       1%         HOTCHKISS       1988       WP       S       10       24       26       0       0%       12%         HOTCHKISS       1989       WP       S       10       24       27       0       0%       12%         HOTCHKISS       1990       WP       S       10       24       27       0       0%       12%         HOTCHKISS       1991       WP       S       10       24       39       3       37%       56%         HOTCHKISS       1992       WP       S       10       24       39       3       37%       56%         HOTCHKISS       1993       WP       S       10       24       41       5       32%       48%         HYTHE OFF/LIB       1990       V       G       0       24       51       0       0%       0%         HYTHE OFF/LIB       1991       V       G       0       24       55       0       <											
HINTON       1994       T       S       9341       120       157       0       1%       1%         HOTCHKISS       1988       WP       S       10       24       26       0       0%       12%         HOTCHKISS       1989       WP       S       10       24       27       0       0%       12%         HOTCHKISS       1990       WP       S       10       24       29       0       7%       14%         HOTCHKISS       1991       WP       S       10       24       39       3       3%       5%         HOTCHKISS       1992       WP       S       10       24       39       3       3%       5%         HOTCHKISS       1993       WP       S       10       24       39       3       3%       5%         HOTCHKISS       1993       WP       S       10       24       41       5       32%       48%         HOTCHKISS       1994       WP       S       10       24       54       0       0%       6%         HYTHE OFF/LIB       1990       V       G       0       24       55       0       0%<											
HOTCHKISS       1988       WP       S       10       24       26       0       0%       12%         HOTCHKISS       1989       WP       S       10       24       27       0       0%       12%         HOTCHKISS       1990       WP       S       10       24       29       0       7%       14%         HOTCHKISS       1991       WP       S       10       24       37       2       21%       41%         HOTCHKISS       1992       WP       S       10       24       39       3       37%       56%         HOTCHKISS       1992       WP       S       10       24       39       3       37%       56%         HOTCHKISS       1993       WP       S       10       24       21       0       8%       19%         HYTHE OFF/LIB       1994       WP       G       0       24       55       0       0%       6%         HYTHE OFF/LIB       1991       V       G       0       24       55       0       0%       0%         JANVIER       1993       V       G       0       24       55       0 <td< td=""><td></td><td></td><td></td><td></td><td>*</td><td></td><td></td><td></td><td></td><td></td><td></td></td<>					*						
HOTCHKISS       1989       WP       S       *       1D       24       27       0       0%       12%         HOTCHKISS       1990       WP       S       *       1D       24       29       0       7%       14%         HOTCHKISS       1991       WP       S       *       10       24       37       2       21%       41%         HOTCHKISS       1992       WP       S       *       10       24       37       2       21%       41%         HOTCHKISS       1993       WP       S       *       10       24       37       2       21%       48%         HOTCHKISS       1993       WP       S       *       10       24       27       0       8%       19%         HOTCHKISS       1993       WP       S       *       10       24       27       0       8%       19%         HYTHE OFF/LIB       1989       V       G       0       24       51       0       0%       0%         HYTHE OFF/LIB       1991       V       G       0       24       53       0       0%       0%         JANVIER       1983<					+						
HOTCHKISS       1990       WP       S       *       10       24       29       0       7%       14%         HOTCHKISS       1991       WP       S       *       10       24       37       2       21%       41%         HOTCHKISS       1992       WP       S       *       10       24       39       3       37%       56%         HOTCHKISS       1993       WP       S       *       10       24       39       3       37%       56%         HOTCHKISS       1994       WP       S       *       10       24       41       5       32%       48%         HOTCHKISS       1990       V       G       0       24       51       0       0%       6%         HYTHE OFF/LIB       1990       V       G       0       24       55       0       0%6       0%         HYTHE OFF/LIB       1991       V       G       0       24       55       0       0%6       0%         JANVIER       1988       H       S       *       435       48       84       0       3%6       3%6         JANVIER       1989       H </td <td></td> <td></td> <td></td> <td></td> <td>*</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>					*						
HOTCHKISS       1991       WP       S       *       10       24       37       2       21%       41%         HOTCHKISS       1992       WP       S       *       10       24       39       3       37%       56%         HOTCHKISS       1993       WP       S       *       10       24       27       0       8%       19%         HOTCHKISS       1994       WP       S       *       10       24       41       5       32%       48%         HYTHE OFF/LIB       1989       V       G       0       24       51       0       0%       0%         HYTHE OFF/LIB       1990       V       G       0       24       55       0       0%       0%         HYTHE OFF/LIB       1991       V       G       0       24       55       0       0%       0%         HYTHE OFF/LIB       1993       V       G       0       24       55       0       0%       0%         JANVER       1993       V       G       0       24       55       0       0%       0%         JANVIER       1988       H       S       435 <td></td> <td></td> <td></td> <td></td> <td>*</td> <td></td> <td></td> <td></td> <td>0</td> <td></td> <td></td>					*				0		
HOTCHKISS       1992       WP       S       IO       24       39       3       37%       56%         HOTCHKISS       1993       WP       S       IO       24       27       0       8%       19%         HOTCHKISS       1994       WP       S       IO       24       41       5       32%       48%         HYTHE OFF/LIB       1990       V       G       0       24       51       0       0%       6%         HYTHE OFF/LIB       1990       V       G       0       24       53       0       0%       6%         HYTHE OFF/LIB       1991       V       G       0       24       55       0       0%       0%         HYTHE OFF/LIB       1993       V       G       0       24       54       0       0%       0%         JANVIER       1993       V       G       0       24       45       0       0%       0%         JANVIER       1993       V       G       0       24       45       0       0%       0%         JANVIER       1988       H       S       435       48       80       0       0%		1991	WP	S	*	10	24	37	2	21%	41%
HOTCHNSS       1933       WP       S       10       24       21       0       376       1376         HOTCHNSS       1934       WP       S       10       24       41       5       32%       48%         HYTHE OFF/LIB       1989       V       G       0       24       51       0       0%       0%         HYTHE OFF/LIB       1990       V       G       0       24       53       0       0%       0%         HYTHE OFF/LIB       1991       V       G       0       24       55       0       0%       0%         HYTHE OFF/LIB       1992       V       G       0       24       55       0       0%       0%         HYTHE OFF/LIB       1991       V       G       0       24       45       0       0%       0%         JANVIER       1988       H       S       *       435       48       84       0       3%       3%         JANVIER       1990       H       S       *       435       48       87       0       3%       5%         JANVIER       1991       H       S       *       435       48 <td>HOTCHKISS</td> <td>1992</td> <td>WP</td> <td>S</td> <td>*</td> <td>10</td> <td>24</td> <td>39</td> <td>3</td> <td>37%</td> <td>56%</td>	HOTCHKISS	1992	WP	S	*	10	24	39	3	37%	56%
HYTHE OFF/LIB       1989       V       G       0       24       51       0       0%       0%         HYTHE OFF/LIB       1990       V       G       0       24       53       0       0%       6%         HYTHE OFF/LIB       1991       V       G       0       24       53       0       0%       0%         HYTHE OFF/LIB       1992       V       G       0       24       55       0       0%       0%         HYTHE OFF/LIB       1992       V       G       0       24       54       0       0%       0%         HYTHE OFF/LIB       1992       V       G       0       24       54       0       0%       0%         JANVIER       1994       V       G       0       24       45       0       0%       0%         JANVIER       1988       H       S       435       48       84       0       3%       3%         JANVIER       1990       H       S       435       48       84       1       1%       1%         JANVIER       1992       H       S       435       48       41       0       0%	HOTCHKISS	1993	WP	S	*	10	24	27	0	8%	19%
HYTHE OFF/LIB       1990       V       G       0       24       54       0       0%       6%         HYTHE OFF/LIB       1991       V       G       0       24       53       0       0%       0%         HYTHE OFF/LIB       1992       V       G       0       24       55       0       0%       0%         HYTHE OFF/LIB       1993       V       G       0       24       54       0       0%       0%         HYTHE OFF/LIB       1993       V       G       0       24       45       0       0%       0%         JANVIER       1988       H       S       *       435       48       94       0       2%       4%         JANVIER       1989       H       S       *       435       48       84       0       3%       3%         JANVIER       1990       H       S       *       435       48       87       0       3%       5%         JANVIER       1991       H       S       *       435       48       84       1       1%       1%         JANVIER       1993       H       S       *       <	HOTCHKISS	1994	WP	S	*	10	24	41	5	32%	48%
HYTHE OFF/LIB       1991       V       G       0       24       53       0       0%       0%         HYTHE OFF/LIB       1992       V       G       0       24       55       0       0%       0%         HYTHE OFF/LIB       1993       V       G       0       24       54       0       0%       0%         HYTHE OFF/LIB       1994       V       G       0       24       45       0       0%       0%         JANVIER       1988       H       S       *       435       48       94       0       2%       4%         JANVIER       1989       H       S       *       435       48       84       0       3%       3%         JANVIER       1990       H       S       *       435       48       84       0       3%       5%         JANVIER       1991       H       S       *       435       48       84       1       1%       1%         JANVIER       1991       H       S       *       435       48       84       1       1%       1%         JANVIER       1993       H       G       *		1989	V	G				51	0	0%	0%
HYTHE OFF/LIB       1992       V       G       0       24       55       0       0%       0%         HYTHE OFF/LIB       1993       V       G       0       24       54       0       0%       0%         HYTHE OFF/LIB       1994       V       G       0       24       45       0       0%       0%         JANVIER       1988       H       S       435       48       94       0       2%       4%         JANVIER       1988       H       S       435       48       84       0       3%       3%         JANVIER       1989       H       S       435       48       84       0       3%       5%         JANVIER       1990       H       S       435       48       84       1       1%       1%         JANVIER       1991       H       S       *       435       48       84       1       1%       1%         JANVIER       1992       H       S       *       435       48       84       1       1%       1%         JANVIER       1994       H       S       *       435       48       50	HYTHE OFF/LIB										
HYTHE OFF/LIB       1993       V       G       0       24       54       0       0%       0%         HYTHE OFF/LIB       1994       V       G       0       24       45       0       0%       0%         JANVIER       1988       H       S       *       435       48       94       0       2%       4%         JANVIER       1989       H       S       *       435       48       84       0       3%       3%         JANVIER       1990       H       S       *       435       48       80       0       0%       0%         JANVIER       1991       H       S       *       435       48       87       0       3%       5%         JANVIER       1991       H       S       *       435       48       84       1       1%       1%         JANVIER       1993       H       S       *       435       48       84       1       1%       0%       0%       0%       0%       0%       0%       0%       0%       0%       0%       0%       0%       0%       0%       0%       0%       0%       0% </td <td></td>											
HYTHE OFF/LIB       1994       V       G       0       24       45       0       0%       0%         JANVIER       1988       H       S       435       48       94       0       2%       4%         JANVIER       1989       H       S       435       48       84       0       3%       3%         JANVIER       1990       H       S       435       48       80       0       0%       0%         JANVIER       1990       H       S       435       48       80       0       0%       0%         JANVIER       1991       H       S       435       48       87       0       3%       5%         JANVIER       1991       H       S       435       48       84       1       1%       1%         JANVIER       1993       H       S       435       48       94       0       0%       0%         JANVIER       1993       H       S       435       48       19       0       0%       0%         JARVIE       1988       H       G       102       48       50       0       0%       0%											
JANVIER       1988       H       S       435       48       94       0       2%       4%         JANVIER       1989       H       S       435       48       84       0       3%       3%         JANVIER       1990       H       S       435       48       80       0       0%       0%         JANVIER       1990       H       S       435       48       80       0       0%       0%         JANVIER       1991       H       S       435       48       87       0       3%       5%         JANVIER       1992       H       S       435       48       84       1       1%       1%         JANVIER       1992       H       S       435       48       84       1       1%       1%         JANVIER       1993       H       S       435       48       91       0       0%       0%         JARVIE       1984       H       S       *       102       48       53       0       2%       2%         JARVIE       1989       H       G       *       102       48       46       0 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>											
JANVIER       1989       H       S       *       435       48       84       0       3%       3%         JANVIER       1990       H       S       *       435       48       80       0       0%       0%         JANVIER       1991       H       S       *       435       48       87       0       3%       5%         JANVIER       1992       H       S       *       435       48       84       1       1%       1%         JANVIER       1992       H       S       *       435       48       84       1       1%       1%         JANVIER       1993       H       S       *       435       48       41       0       0%       0%         JANVIER       1993       H       S       *       435       48       19       0       0%       0%         JARVIE       1984       H       G       *       102       48       53       0       2%       2%         JARVIE       1989       H       G       *       102       48       48       0       0%       0%         JARVIE       1991 </td <td></td> <td></td> <td></td> <td></td> <td>*</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>					*						
JANVIER       1990       H       S       *       435       48       80       0       0%       0%         JANVIER       1991       H       S       *       435       48       87       0       3%       5%         JANVIER       1992       H       S       *       435       48       84       1       1%       1%         JANVIER       1993       H       S       *       435       48       84       1       1%       1%         JANVIER       1993       H       S       *       435       48       41       0       0%       0%         JANVIER       1994       H       S       *       435       48       19       0       0%       0%         JARVIE       1984       H       G       *       102       48       53       0       2%       2%         JARVIE       1989       H       G       *       102       48       48       0       0%       0%         JARVIE       1990       H       G       *       102       48       46       0       0%       0%         JARVIE       1991 <td></td> <td></td> <td></td> <td></td> <td>*</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>					*						
JANVIER       1991       H       S       435       48       87       0       3%       5%         JANVIER       1992       H       S       435       48       84       1       1%       1%         JANVIER       1993       H       S       435       48       84       1       1%       1%         JANVIER       1993       H       S       435       48       84       1       0       0%       0%         JANVIER       1994       H       S       435       48       19       0       0%       0%         JARVIER       1984       H       G       102       48       53       0       2%       2%         JARVIE       1989       H       G       102       48       50       0       0%       0%         JARVIE       1990       H       G       102       48       48       0       0%       0%         JARVIE       1991       H       G       102       48       48       0       0%       0%         JARVIE       1991       H       G       102       48       46       0       0% <th< td=""><td></td><td></td><td></td><td></td><td>*</td><td></td><td></td><td></td><td></td><td></td><td></td></th<>					*						
JANVIER       1992       H       S       *       435       48       84       1       1%       1%         JANVIER       1993       H       S       *       435       48       41       0       0%       0%         JANVIER       1993       H       S       *       435       48       41       0       0%       0%         JANVIER       1994       H       S       *       435       48       19       0       0%       0%         JARVIE       1984       H       G       *       102       48       53       0       2%       2%         JARVIE       1989       H       G       *       102       48       50       0       0%       0%         JARVIE       1990       H       G       *       102       48       48       0       0%       0%         JARVIE       1991       H       G       *       102       48       46       0       0%       0%         JARVIE       1992       H       G       *       102       48       46       0       0%       0%         JARVIE       1993					*						
JANVIER       1993       H       S       *       435       48       41       0       0%       0%         JANVIER       1994       H       S       *       435       48       19       0       0%       0%         JARVIER       1994       H       S       *       435       48       19       0       0%       0%         JARVIE       1988       H       G       *       102       48       53       0       2%       2%         JARVIE       1989       H       G       *       102       48       50       0       0%       0%         JARVIE       1990       H       G       *       102       48       48       0       0%       0%         JARVIE       1991       H       G       *       102       48       46       0       0%       0%         JARVIE       1992       H       G       *       102       48       48       0       0%       0%         JARVIE       1993       H       G       *       102       48       46       0       3%       3%					*						
JANVIER       1994       H       S       *       435       48       19       0       0%       0%         JARVIE       1988       H       G       *       102       48       53       0       2%       2%         JARVIE       1989       H       G       *       102       48       50       0       0%       0%         JARVIE       1989       H       G       *       102       48       50       0       0%       0%         JARVIE       1990       H       G       *       102       48       48       0       0%       0%         JARVIE       1991       H       G       *       102       48       46       0       0%       0%         JARVIE       1992       H       G       *       102       48       48       0       0%       0%         JARVIE       1993       H       G       *       102       48       46       0       3%       3%					*						
JARVIE       1988       H       G       *       102       48       53       0       2%       2%         JARVIE       1989       H       G       *       102       48       50       0       0%       0%         JARVIE       1990       H       G       *       102       48       48       0       0%       0%         JARVIE       1990       H       G       *       102       48       48       0       0%       0%         JARVIE       1991       H       G       *       102       48       46       0       0%       0%         JARVIE       1992       H       G       *       102       48       48       0       0%       0%         JARVIE       1993       H       G       *       102       48       46       0       3%       3%					*						
JARVIE       1989       H       G       *       102       48       50       0       0%       0%         JARVIE       1990       H       G       *       102       48       48       0       0%       0%         JARVIE       1991       H       G       *       102       48       48       0       0%       0%         JARVIE       1991       H       G       *       102       48       46       0       0%       0%         JARVIE       1992       H       G       *       102       48       48       0       0%       0%         JARVIE       1993       H       G       *       102       48       46       0       3%       3%					*						
JARVIE         1990         H         G         *         102         48         48         0         0%         0%           JARVIE         1991         H         G         *         102         48         46         0         0%         0%           JARVIE         1992         H         G         *         102         48         48         0         0%         0%           JARVIE         1992         H         G         *         102         48         48         0         0%         0%           JARVIE         1993         H         G         *         102         48         46         0         3%         3%					*						
JARVIE         1991         H         G         *         102         48         46         0         0%         0%           JARVIE         1992         H         G         *         102         48         48         0         0%         0%           JARVIE         1993         H         G         *         102         48         46         0         3%         3%					*						
JARVIE         1992         H         G         *         102         48         48         0         0%         0%           JARVIE         1993         H         G         *         102         48         46         0         3%         3%					*						
JARVIE 1993 H G * 102 48 46 0 3% 3%					*						
JARVIE 1994 H G T 102 48 40 0 0% 0%		1993	н	G	*		48	46	0	3%	3%
	JARVIE	1994	н	G	*	102	48	40	0	0%	0%

Table 15: Listing of All NRBS Facilities With the Annual Microbial Sampling Summary

١.

Table 15: Listing of All NRBS Facilities With the Annual Microbial Sampling Summary

Table 15: Listing of A	<u>All NRB</u>	S Facilit	ies W		<u>he A</u> nnual N	Aicrobial	Sampling	g Summa	гу	
LOCATION	YEAR	STATUS	TYPE	CL2	POPULATION	NO REQD	TOTSAM	TC>10.FC>0	% Coliform pos.	% POOR
JASPER NATIONAL PARK	1989	NP	S&G	*	4475	48	46	0	2%	5%
JASPER NATIONAL PARK	1990	NP	S&G	1.5	4475	48	22	0	0%	0%
JASPER NATIONAL PARK	1991	NP	S&G	*	4475	48	1	0	0%	0%
JASPER NATIONAL PARK	1992	NP	S&G	*	4475	48	D	0		
JASPER NATIONAL PARK	1993	NP	S&G	*	4475	48	0	0		
JASPER NATIONAL PARK	1994	NP	S&G	*	4475	48	5	0	0%	0%
JEAN COTE	1988	Н	S	*	82	48	48	0	2%	2%
JEAN COTE	1989	Н	S		82	48	48	0	0%	0%
JEAN COTE	1990	н	S	*	82	48	48	0	0%	0%
JEAN COTE	1991	Н	S	-	82	48	48	0	0%	0%
JEAN COTE	1992	Н	S		82	48	59	0	0%	2%
JEAN COTE JEAN COTE	1993	Н	S	*	82	48	84	1	2%	4%
JOUSSARD	1994 1988	H H	S S		82 330	48	60 54	0	0%	0%
JOUSSARD	1988	л Н	S		330	48 48	53	0	0%	4%
JOUSSARD	1969	л Н	S	*	330	40 48	53 70	0	0%	<b>6%</b>
JOUSSARD	1990	Н	S	*	330	40 48	101	0 2	0% 2%	7% 21/
JOUSSARD	1991	н	S	1.1	330	48	62	0	2% 0%	2% 0%
JOUSSARD	1993	Н	s	*	330	48	54	0	0%	0%
JOUSSARD	1994	Н	s	*	330	48	51	0	0%	0%
KEG RIVER	1988	WP	S	*	18	24	26	1	5%	20%
KEG RIVER	1989	WP	s	*	18	24	28	0	12%	19%
KEG RIVER	1990	WP	s	*	18	24	24	2	13%	13%
KEG RIVER	1991	WP	s	*	18	24	23	0	5%	14%
KEG RIVER	1992	WP	S	*	18	24	29	3	13%	22%
KEG RIVER	1993	WP	S	*	18	48	69	0	1%	3%
KEG RIVER	1994	WP	S	*	18	48	89	0	0%	1%
KINUSO	1988	V	S	*	282	48	59	1	2%	7%
KINUSO	1989	V	S	*	282	48	66	0	0%	6%
KINUSO	1990	V	S		282	48	47	0	2%	2%
KINUSO	1991	V	S	*	282	48	50	1	2%	2%
KINUSO	1992	V	S	*	282	48	49	0	2%	2%
KINUSO	1993	V	S	*	282	48	49	0	0%	0%
KINUSO	1994	V	S	*	282	48	40	0	3%	3%
LA CRETE	1988	Н	G	*	450	48	55	0	0%	0%
LA CRETE	1989	н	G	*	450	48	56	0	2%	2%
LA CRETE	1990	Н	G	*	450	48	52	0	0%	0%
LA CRETE	1991	Н	G	*	450	48	56	0	2%	2%
LA CRETE	1992	н	G	*	450	48	55	0	0%	0%
LA CRETE	1993	Н	G	*	450	48	72	0	0%	3%
LA CRETE	1994	Н	G	*	450	48	91	0	0%	2%
LA GLACE	1988	Н	G		169	24	10	0	0%	0%
	1989	H	G G		169	24	16	0	0%	0%
LA GLACE LA GLACE	1990	H H	G		169 169	24 24	10 8	0 0	0%	0%
LA GLACE	1991 1992	H	G		169	24 24	° 12	0	0% 0%	0% 8%
LA GLACE	1993	Н	G		169	24	4	0	0%	8% 0%
LA GLACE	1994	Н	G		169	24	7	0	0%	29%
LAC LA BICHE	1988	Т	s	*	2553	48	141	0	2%	5%
LAC LA BICHE	1989	Т	S	*	2553	48	141	0	1%	2%
LAC LA BICHE	1990	Т	S	*	2553	48	140	0	2%	6%
LAC LA BICHE	1991	Т	S	*	2553	48	106	0	1%	1%
LAC LA BICHE	1992	Т	S		2553	48	109	3	5%	5%
LAC LA BICHE	1993	Т	S	*	2553	48	103	0	0%	0%
LAC LA BICHE	1994	Т	S	*	2553	48	93	0	0%	1%
LITTLE BUFFALO	1988	Н	S	*	253	48	46	0	2%	2%
LITTLE BUFFALO	1989	Н	S	*	253	48	52	2	4%	8%
LITTLE BUFFALO	1990	Н	S	*	253	48	38	0	0%	6%
LITTLE BUFFALO	1991	н	S	*	253	48	30	0	0%	0%
LITTLE BUFFALO	1992	н	S	*	253	48	49	0	0%	0%
LITTLE BUFFALO	1993	Н	S	*	253	48	51	0	0%	0%
LITTLE BUFFALO	1994	Н	S	*	253	48	84	0	0%	0%
LODGEPOLE	1988	н			161	24	39	0	9%	9%
LODGEPOLE	1989	Н			161	24	49	0	4%	4%

Table 15: Listing of All NRBS Facilities With the Annual Microbial Sampling Summary

Table 15: Listing of Al		S Facilit						g Summa	ry	
LOCATION	YEAR	STATUS	TYPE	CL2	POPULATION		TOTSAM	TC>10,FC>0	% Coliform pos.	% POOR
LODGEPOLE	1990	н	G		161	24	58	1	3%	3%
LODGEPOLE	1991	н	G		161	24	52	0	2%	2%
LODGEPOLE	1992	Н	G		161	24	14	0	0%	0%
LOON LAKE	1988	Н	S	*	208	48	32	1	4%	28%
LOON LAKE	1989	Н	S	*	208	48	48	0	0%	9%
LOON LAKE	1990	Н	S		208	48	52	0	5%	15%
LOON LAKE	1991	Н	S	*	208	48	49	0	2%	2%
LOON LAKE	1992	Н	S	*	208	48	49	0	4%	6%
LOON LAKE	1993	Н	S	*	208	48	53	0	2%	6%
MANNING	1988	Т	S	*	1144	48	76	0	0%	0%
MANNING	1989	T	S	*	1144	48	76	0	0%	3%
MANNING	1990	Т	S	*	1144	48	79	1	1%	1%
MANNING	1991	Т	S	*	1144	48	62	0	0%	0%
MANNING	1992	Т	S	*	1144	48	70	0	1%	1%
MANNING	1993	Т	S	*	1144	48	71	1	1%	1%
MANNING	1994	Т	S	*	1144	48	90	2	3%	3%
MANOLA	1988	Н	G	*	71	48	50	0	0%	18%
MANOLA	1989	Н	G	*	71	48	57	0	0%	13%
MANOLA	1990	Н	G	*	71	48	58	0	7%	20%
MANOLA	1991	H	G	*	71	48	52	0	0%	0%
MANOLA	1992	н	G	*	71	48	53	0	0%	0%
MANOLA	1993	н	G	*	71	48	53	0	0%	0%
MANOLA	1994	Н	G	*	71	48	45	1	5%	5%
MARIE REINE	1992	Н	S		80	48	50	0	6%	8%
MARIE REINE	1993	Н	S	52	80	48	50	1	14%	14%
MARIE REINE	1994	н	S	*	80	48	83	16	23%	27%
MARIE-REINE	1988	WP	S	*	80	24	26	0	0%	12%
MARIE-REINE	1989	WP	S	*	80	24	29	1	21%	34%
MARIE-REINE	1990	WP	S		80	24	30	0	10%	10%
MARIE-REINE	1991	WP	S	121	80	24	50	0	2%	6%
MAYERTHORPE	1988	Т	G	*	1414	48	49	0	0%	0%
MAYERTHORPE	1989	Т	G	*	1414	48	45	0	0%	0%
MAYERTHORPE	1990	Ţ	G	٠	1414	48	48	0	2%	2%
MAYERTHORPE	1991	Т	G	*	1414	48	52	0	0%	0%
MAYERTHORPE	1992	Т	G	*	1414	48	50	0	0%	0%
MAYERTHORPE	1993	Т	G	*	1414	48	50	1	5%	11%
MAYERTHORPE	1994	Т	G		1414	48	42	0	3%	5%
MCINNIS (WELL #1)	1988	WP	G		0	24	24	0	0%	0%
MCINNIS (WELL #1)	1989	WP	G		0	24	28	1	19%	21%
MCINNIS (WELL #1)	1990	WP	G		0	24	26	0	8%	12%
MCINNIS (WELL #1)	1991	WP	G		0	24	26	0	0%	4%
MCINNIS (WELL #1)	1992	WP	G		0	24	22	0	0%	0%
MCINNIS (WELL #1)	1993	WP	G		0	24	27	0	0%	12%
MCINNIS (WELL #1)	1994	WP	G		0	24	24	1	5%	17%
MCINNIS (WELL #2)	1988	WP	G		0	24	24	0	0%	0%
MCINNIS (WELL #2)	1989	WP	G		0	24	28	2	33%	36%
MCINNIS (WELL #2)	1990	WP	G		0	24	28	0	12%	19%
MCINNIS (WELL #2)	1991	WP	G		0	24	27	0	0%	4%
MCINNIS (WELL #2)	1992	WP	G		0	24	24	0	0%	4%
MCINNIS (WELL #2)	1993	WP	G		0	24	26	0	0%	12%
MCINNIS (WELL #2)	1994	WP	G	,	0	24	23	0	0%	13%
MCLENNAN	1988	Т	S	*	1021	48	81	0	0%	0%
MCLENNAN	1989	Т	S	*	1045	48	80	0	0%	0%
MCLENNAN	1990	T	S	*	1045	48	82	0	0%	0%
MCLENNAN	1991	T	S		1045	48	69	0	0%	0%
MCLENNAN	1992	T	S	*	1045	48	76	0	0%	0%
MCLENNAN	1993	T	S	*	1045	48	84	0	2%	2%
MCLENNAN	1994	Т	S	*	1045	48	87	0	0%	1%
MILDRED LAKE/LOWER CAM	1991	1	S	*	0	48	61	0	0%	0%
MILDRED LAKE/LOWER CAM	1992	1	S	*	D	48	72	0	0%	0%
MILDRED LAKE/SYNCRUDE	1993	1	S	*	D	48	48	0	0%	0%
MILDRED LAKE/SYNCRUDE	1994	1	S	*	0	48	44	1	2%	2%
MILDRED LAKE/UPPER CAM	1991	1	S	*	0	48	57	0	0%	4%
MILDRED LAKE/UPPER CAM	1992	1	S	*	0	48	63	0	0%	2%

	Table 15: Listing of All NRBS Facilities	With the Annual Microbial Sampling Summary
--	------------------------------------------	--------------------------------------------

Table 15: Listing of Al	I NRB:	S Facilit		<u>ith t</u>			Samplin	<u>g Summa</u>	ry	
LOCATION	YEAR	STATUS	TYPE	CL2	POPULATION		TOTSAM	TC>10,FC>0	% Coliform pos.	% POOR
MITSUE IND. PARK	1989	0	S	*	0	48	43	0	0%	0%
MITSUE IND. PARK	1990	0	S	*	0	48	42	1	3%	3%
MITSUE IND. PARK	1991	0	S		0	48	44	0	5%	5%
MITSUE IND. PARK	1992	0	S	*	0	48	46	1	2%	2%
MITSUE IND. PARK	1993	0	S	*	Ο.	48	42	0	0%	2%
MITSUE IND. PARK	1994	0	S	*	0	48	48	1	5%	9%
MOONSHINE LAKE PROV.PK.	1989	PP	S	*	0	48	111	0	2%	8%
MOONSHINE LAKE PROV.PK.	1990	PP	S	*	0	48	176	4	18%	23%
MOONSHINE LAKE PROV.PK.	1991	PP	S	*	0	48	253	2	10%	12%
MOONSHINE LAKE PROV.PK.	1992	PP	S	*	0	48	230	4	5%	13%
MOONSHINE LAKE PROV.PK.	1993	PP	s	*	0	48	55	0	4%	10%
MOONSHINE LAKE PROV.PK.	1994	PP	s	*	ō	48	173	1	3%	23%
NAMPA	1993	v	s	*	464	48	54	0	0%	0%
NAMPA	1994	v	s	*	464	48	81	0	1%	4%
NEERLANDIA	1989	н	s	*	71	24	47	0	0%	0%
NEERLANDIA	1990	H	S	*	71	48	71	0	3%	3%
NEERLANDIA	1991	Н	s	*	71	48	53	0	0%	0%
NEERLANDIA	1992	н	s	*	71	48	53	0		0%
NEERLANDIA	1992	Н	S	*	71	48	52	0	0% 0%	0%
NEERLANDIA	1993	H	S	*	71	48	49	0		
NEW FISH CREEK	1994 1988	м WP	G	*	0	40 24	49 52		0%	0%
NEW FISH CREEK	1988	WP	G	*	0	24 24	ວ2 51	0	4%	4%
				*				0	0%	2%
NEW FISH CREEK	1990	WP	G	*	0	24	51 52	0	4%	6%
	1991	WP	G	*	0	24	52	0	4%	6%
NEW FISH CREEK	1992	WP	G	*	0	48	53	0	0%	0%
NEW FISH CREEK	1993	WP	G		0	48	53	0	2%	4%
NEW FISH CREEK	1994	WP	G	÷	0	48	53	0	4%	8%
NORTH STAR	1988	WP	S	<u>,</u>	86	24	27	0	4%	19%
NORTH STAR	1989	WP	S	-	86	24	27	0	0%	16%
NORTH STAR	1990	WP	S	*	86	24	31	0	0%	13%
NORTH STAR	1991	WP	S	-	86	24	36	1	13%	22%
NORTH STAR	1992	WP	S	-	86	24	28	1	16%	25%
NORTH STAR	1993	WP	S		86	24	26	3	21%	27%
NORTH STAR	1994	WP	S	*	86	24	26	6	53%	65%
PADDLE PRAIRIE	1988	Н	S	*	400	48	36	0	3%	11%
PADDLE PRAIRIE	1989	Н	S	*	400	48	52	0	4%	6%
PADDLE PRAIRIE	1990	Н	S	*	400	48	52	0	0%	0%
PADDLE PRAIRIE	1991	н	S		400	48	53	0	0%	4%
PADDLE PRAIRIE	1992	н	S	*	400	48	53	0	2%	2%
PADDLE PRAIRIE	1993	Н	S	*	400	48	76	3	5%	5%
PADDLE PRAIRIE	1994	Н	S	*	400	48	77	1	1%	1%
PEACE RIVER	1991	Т	S	*	6644	84	104	0	0%	0%
PEACE RIVER	1992	T	S	*	6696	72	108	0	0%	0%
PEACE RIVER	1993	Т	S	*	6696	84	100	0	0%	0%
PEACE RIVER	1994	Т	S	*	6696	84	87	0	0%	0%
PEACE RIVER AIRPORT	1988	AP	S	*	0	48	31	0	0%	0%
PEACE RIVER AIRPORT	1989	AP	S	*	0	48	37	0	0%	0%
PEACE RIVER AIRPORT	1990	AP	S	*	0	48	47	0	0%	0%
PEACE RIVER AIRPORT	1991	AP	G	*	0	48	74	0	0%	0%
PEACE RIVER AIRPORT	1992	AP	G	*	0	48	52	0	0%	0%
PEACE RIVER AIRPORT	1993	AP	G	*	0	48	50	0	0%	0%
PEACE RIVER AIRPORT	1994	AP	G	*	0	48	82	0	0%	0%
PEACE RIVER C.C.	1989	0	S	*	0	48	90	0	0%	0%
PEACE RIVER C.C.	1990	0	S	*	0	48	109	0	1%	1%
PEACE RIVER C.C.	1991	0	S	*	0	48	104	0	0%	0%
PEACE RIVER C.C.	1992	0	S	*	0	48	105	0	0%	0%
PEACE RIVER C.C.	1993	0	S	*	0	48	92	õ	0%	0%
PEACE RIVER C.C.	1994	0	S	*	0	48	82	ŏ	0%	0%
PEAVINE	1990	MS	S	*	0	48	51	õ	0%	0%
PEAVINE	1991	MS	s	*	0	48	52	õ	0%	0%
PEAVINE	1992	MS	S	*	Ō	48	49	õ	0%	0%
PEAVINE	1993	MS	ŝ	*	õ	48	45	ō	0%	0%
PEAVINE	1994	MS	s	*	õ	48	41	0	0%	0%
PEERLESS LAKE	1983	Н	s	*	202	24	8	Õ	0%	0%
			-			- 7	-	~	070	070

Table 15: Listing of All NRBS Facilities With the Annual Microbial Sampling Summary

Table 15: Listing of All	INRB	S Facilit	ies W	ith t	he Annual N	Alcrobial	Samplin	g Summa	ry	
LOCATION	YEAR	STATUS	TYPE	CL2	POPULATION		TOTSAM	TC>10,FC>0	% Coliform pos.	% POOR
PEERLESS LAKE	1989	Н	S	*	202	24	44	0	8%	23%
PEERLESS LAKE	1990	н	S	*	202	24	49	0	5%	12%
PEERLESS LAKE	1991	н	S	*	202	24	53	0	0%	2%
PEERLESS LAKE	1992	н	S		202	24	53	0	0%	0%
PEERLESS LAKE	1993	Н	S	*	202	24	49	0	0%	4%
PEERLESS LAKE	1994	Н	S		202	24	50	1	8%	10%
PEERS	1988	Н	G		162	24	27	0	12%	12%
PEERS	1989	н	G		<b>1</b> 62	24	16	0	20%	20%
PEERS	1990	Н	G		162	24	10	0	44%	44%
PEERS	1991	н	G		162	24	7	0	0%	0%
PEERS	1992	Н	G		162	24	8	0	0%	0%
PEORIA	1988	Н	S	*	65	48	98	0	2%	15%
PEORIA	1989	н	S	*	65	48	95	0	2%	4%
PEORIA	1990	Н	S	*	65	48	79	1	1%	4%
PEORIA	1991	Н	S	*	65	48	55	0	0%	5%
PEORIA	1992	Н	S	*	65	48	63	0	0%	16%
PEORIA	1993	н	S	*	65	48	86	0	0%	1%
PEORIA	1994	Н	S	*	65	48	53	0	0%	4%
PIBROCH	1988	Н	G	*	100	48	51	0	11%	11%
PIBROCH	1989	Н	G	*	100	48	53	0	0%	2%
PIBROCH	1990	н	()	*	100	48	48	0	0%	0%
PIBROCH	1991	н	G	*	100	48	51	0	7%	7%
PIBROCH	1992	Н	G	*	100	48	48	0	0%	2%
PIBROCH	1993	Н	G	*	100	48	48	0	0%	0%
PIBROCH	1994	Н	G	*	100	48	40	0	0%	5%
PICKARDVILLE	1988	Н	S	*	190	48	53	0	0%	0%
PICKARDVILLE	1989	Н	S	*	190	48	49	0	0%	0%
PICKARDVILLE	1990	Н	S	*	190	48	49	0	0%	0%
PICKARDVILLE	1991	Н	S	*	190	48	48	0	0%	0%
PICKARDVILLE	1992	Н	S	*	190	48	48	0	0%	2%
PICKARDVILLE	1993	Н	S	*	190	48	48	0	0%	0%
PICKARDVILLE	1994	Н	S	*	190	48	37	0	0%	0%
PINE SHADOW ESTATES	1989	MHP	G		200	24	19	0	0%	6%
PINE SHADOW ESTATES	1990	MHP	G		200	24	24	0	9%	17%
PINE SHADOW ESTATES	1991	MHP	G		200	24	28	0	12%	19%
PINE SHADOW ESTATES	1992	MHP	G		200	24	32	0	0%	3%
PLAMONDON	1988	V	S	*	236	48	72	1	7%	7%
PLAMONDON	1989	V	S	*	236	48	72	0	0%	0%
PLAMONDON	1990	V	S	*	236	48	72	0	0%	0%
PLAMONDON	1991	V	S	*	236	48	73	0	1%	1%
PLAMONDON	1992	V	S	*	236	48	72	0	0%	0%
PLAMONDON	1993	V	S	*	236	48	72	0	0%	0%
PLAMONDON	1994	V	S	*	236	48	60	0	0%	0%
POPLAR PLACE (EDSON)	1989	MHP	G		250	24	18	0	6%	12%
POPLAR PLACE (EDSON)	1990	MHP	G		250	24	25	0	8%	8%
POPLAR PLACE (EDSON)	1991	MHP	G		250	24	20	0	5%	5%
POPLAR PLACE (EDSON)	1992	MHP	G		250	24	16	0	0%	0%
PUSKWASKAU	1988	WP	G	*	0	48	47	0	2%	6%
PUSKWASKAU	1989	WP	G	*	0	24	51	0	0%	0%
PUSKWASKAU	1990	WP	G	*	0	24	51	0	2%	4%
PUSKWASKAU	1991	WP	G	*	0	24	40	0	0%	3%
PUSKWASKAU	1992	WP	G	*	0	48	34	0	0%	0%
PUSKWASKAU	1993	WP	G	*	0	48	42	0	0%	5%
PUSKWASKAU	1994	WP	G	*	0	48	0	0		
QUEEN ELIZ.(LAC CARDINAL	1990	FP	G	*	0	48	71	0	0%	2%
QUEEN ELIZ.(LAC CARDINAL	1991	PP	G	*	0	48	104	0	1%	6%
QUEEN ELIZ.(LAC CARDINAL	1992	PP	G	*	0	48	109	3	4%	6%
QUEEN ELIZ.(LAC CARDINAL	1993	PP	G	*	0	48	95	1	1%	1%
QUEEN ELIZ.(LAC CARDINAL	1994	PP	G	*	0	48	90	0	0%	0%
RAINBOW LAKE	1988	Т	S	*	1146	48	57	0	2%	2%
RAINBOW LAKE	1989	Т	S	*	1146	48	66	0	0%	0%
RAINBOW LAKE	1990	Т	S	*	1146	48	67	0	2%	2%
RAINBOW LAKE	1991	Т	S	*	1146	48	140	1	2%	2%
RAINBOW LAKE	1992	Т	S	*	1146	48	151	2	3%	3%

Table 15: Listing of All NRBS Facilities With the Annual Microbial Sampling Summary

Table 15: Listing of	All NRBS	S Facilit	ies W	ith t	he Annual N	Aicrobial	Sampling	g Summa	гу	
LOCATION	YEAR	STATUS	TYPE	CL2	POPULATION	NO REQD	TOTSAM	TC>10,FC>0	% Coliform pos.	% POOR
RAINBOW LAKE	1993	T	S	*	1146	48	179	1	1%	1%
RAINBOW LAKE	1994	Т	S	*	1146	48	88	0	0%	0%
RED EARTH	1988	WP	S	*	0	24	21	0	17%	29%
RED EARTH	1989	WP	S	*	0	24	47	0	0%	4%
RED EARTH	1990	WP	S	*	0	24	54	4	20%	23%
RED EARTH	1991	WP	S	W	0	24	44	0	8%	8%
RED EARTH	1992	WP	S	*	0	24	53	0	2%	4%
RED EARTH	1993	WP	S	*	0	48	71	3	5%	5%
RED EARTH	1994	WP	S	*	Ð	48	50	0	0%	0%
REINWOOD	1988	WP	S	*	D	24	25	0	4%	4%
REINWOOD	1989	WP	S	*	0	24	24	0	0%	4%
REINWOOD	1990	WP	S	*	0	24	27	0	4%	4%
REINWOOD	1991	WP	S	*	D	24	27	0	0%	7%
REINWOOD	1992	WP	s	*	0	24	23	1	13%	13%
REINWOOD	1993	WP	S	۳	0	24	25	0	12%	12%
REINWOOD	1994	WP	S	140	0	24	15	0	8%	14%
RENO	1988	WP	s	*	20	24	26	0	5%	31%
RENO	1989	WP	s	*	20	24	30	0	4%	20%
RENO	1990	WP	s	*	20	24	25	õ	0%	0%
RENO	1991	WP	s	*	20	24	24	õ	0%	0%
RENO	1991	WP	S	*	20	24	25	0	0%	0%
RENO	1992	WP	s		20	24	23	õ	0%	0%
	1993	WP	s	*	20	24	19	ů	0%	0%
RENO	1994	H	G	*	52	48	51	0	0%	0%
RIDGE VALLEY			G	*	52	48	52	0	0%	0%
RIDGE VALLEY	1989	Н	G	*	52	48	52	0	0%	2%
RIDGE VALLEY	1990	Н		*	52	48	52	0	0%	2%
RIDGE VALLEY	1991	н	G	*	52	48	52	0	0%	2%
RIDGE VALLEY	1992	Н	G	*				0	0%	2%
RIDGE VALLEY	1993	н	G	*	52	48	59	-		2% 7%
RIDGE VALLEY	1994	Н	G	-	52	48	58	0	0%	
ROBB	1988	WP	G		230	24	38	0	5%	5%
ROBB	1989	WP	G		230	24	36	0	0%	0%
ROBB	1990	WP	G		230	24	52	0	2%	2%
ROBB	1991	WP	G		230	24	59	0	5%	5%
ROBB	1992	WP	G		230	24	55	0	2%	6%
ROCHESTER	1989	S	G		0	24	3	0	100%	100%
ROCHESTER	1990	S	G		0	24	1	0	0%	0%
ROCHESTER	1991	S	G		0	24	2	0	0%	0%
ROCHESTER	1992	S	G		0	24	1	0	0%	0%
ROCKY LANE	1989	WP	S	*	200	24	48	0	0%	2%
ROCKY LANE	1990	WP	S	*	200	24	48	0	0%	9%
ROCKY LANE	1991	WP	S	*	200	24	54	0	0%	6%
ROCKY LANE	1992	WP	S	*	200	24	49	0	0%	2%
ROCKY LANE	1993	WP	S	*	200	24	47	0	0%	0%
ROCKY LANE	1994	WP	S		200	24	39	0	0%	5%
ROCKY LANE SCHOOL	1989	S	S		0	24	46	0	0%	0%
ROCKY LANE SCHOOL	1990	S	S		0	24	42	0	0%	0%
ROCKY LANE SCHOOL	1991	S	S		0	24	44	0	0%	0%
ROCKY LANE SCHOOL	1992	S	S		0	24	25	0	0%	0%
ROCKY LANE SCHOOL	1993	S	S		0	24	12	0	0%	0%
ROCKY LANE SCHOOL	1994	S	S		0	24	19	0	0%	0%
ROYCE	1988	WP	S	*	0	24	49	0	10%	15%
ROYCE	1989	WP	S	*	0	48	46	0	0%	2%
ROYCE	1990	WP	S	*	0	48	48	0	2%	2%
ROYCE	1991	WP	S	*	D	48	46	1	13%	13%
ROYCE	1992	WP	S	*	0	48	49	2	12%	12%
ROYCE	1993	WP	S		0	48	48	0	0%	2%
ROYCE	1994	WP	s	*	Ō	48	46	2	9%	13%
RYCROFT	1988	V	S&G	*	672	48	57	0	5%	5%
RYCROFT	1989	v	S&G	*	672	48	49	0	0%	0%
RYCROFT	1990	v	S&G	+	672	48	48	0	2%	2%
RYCROFT	1991	v	S&G	*	672	48	48	0	0%	0%
RYCROFT	1992	v	5&G	*	672	48	46	0	0%	0%
RYCROFT	1993	v	S&G	*	672	48	47	0	0%	0%
		-						-		

----

Table 15: Listing of All NRE	S Facilities With the A	Annual Microbial Sampling S	ummary

Table 15: Listing of Al	I NKB	S Facilit	ies W	<u>ith t</u>				g Summa	ry	
LOCATION	YEAR	STATUS	TYPE	CL2	POPULATION	NO_REQD	TOTSAM	TC>10,FC>0	% Coliform pos.	% POOR
RYCROFT	1994	V	S&G	*	672	48	41	0	5%	12%
SANDY LAKE	1988	н	S	*	0	48	55	0	8%	9%
SANDY LAKE	1989	н	S	*	0	48	55	1	4%	6%
SANDY LAKE	1990	н	S	*	0	48	74	0	4%	9%
SANDY LAKE	1991	н	S	*	0	48	50	0	0%	0%
SANDY LAKE	1992	н	S	*	0	48	49	0	0%	0%
SANDY LAKE	1993	н	S	*	0	48	66	0	0%	0%
SANDY LAKE	1994	Н	S	*	0	48	64	0	0%	3%
SANGUDO	1988	V	G	*	368	24	48	0	0%	0%
SANGUDO	1989	V	G	*	368	48	57	0	0%	5%
SANGUDO	1990	V	G	*	368	48	98	0	0%	1%
SANGUDO	1991	V	G	*	368	48	97	0	0%	3%
SANGUDO	1992	V	G	*	368	48	52	0	0%	0%
SANGUDO	1993	V	G	*	368	48	52	0	0%	0%
SANGUDO	1994	V	G	*	368	48	73	0	0%	0%
SANGUDO SCHOOL	1989	S	G		0	24	5	0	0%	60%
SANGUDO SCHOOL	1990	S	G		0	24	0	0		
SANGUDO SCHOOL	1991	S	G		0	24	0	0		
SANGUDO SCHOOL	1992	S	G		0	24	0	0		
SASKATOON ISLAND PROV.	1989	PP	G	*	0	48	127	1	8%	10%
SASKATOON ISLAND PROV.	1990	PP	G	*	0	48	107	0	0%	0%
SASKATOON ISLAND PROV.	1991	PP	G		0	48	112	0	0%	1%
SASKATOON ISLAND PROV.	1992	PP	G	*	0	28	59	0	0%	5%
SASKATOON ISLAND PROV.	1993	PP	G	*	0	20	69	0	0%	0%
SASKATOON ISLAND PROV.	1994	PP	G	*	0	20	37	0	0%	0%
SEXSMITH	1988	Т	G		1256	48	77	0	16%	16%
SEXSMITH	1989	Т	G		1256	48	73	0	3%	3%
SEXSMITH	1990	т	G		1256	48	117	0	13%	15%
SEXSMITH	1991	Т	G		1256	48	102	0	1%	1%
SEXSMITH	1992	т	G		1256	48	99	0	2%	2%
SEXSMITH	1993	T	G		1256	48	109	2	3%	3%
SEXSMITH	1994	Т	G		1256	48	83	2	6%	7%
SHELL-PEACE R. INSITU	1991	1	S	*	0	48	52	0	2%	2%
SHELL-PEACE R. INSITU	1992	l	S	*	0	48	52	0	0%	0%
SHELL-PEACE R. INSITU	1993	I	S	*	0	48	37	0	0%	0%
SHELL-PEACE R. INSITU	1994	1	S	*	0	48	40	0	0%	0%
SIR WINSTON CHURCHILL P	1989	PP	S		0	48	53	0	0%	0%
SIR WINSTON CHURCHILL P	1990	PP	S		0	48	87	0	11%	17%
SIR WINSTON CHURCHILL P	1991	PP	S	*	0	48	44	0	0%	5%
SIR WINSTON CHURCHILL P	1992	PP	S	-	0	48	51	0	2%	10%
SIR WINSTON CHURCHILL P	1993	PP	S	*	0	48	39	0	0%	0%
SIR WINSTON CHURCHILL P	1994	PP	S	*	0	48	45	1	13%	24%
SLAVE LAKE	1988	T	S	*	5611	72	159	0	3%	6%
SLAVE LAKE	1989	T	S		5611	72	76	0	0%	0%
SLAVE LAKE	1990	T	S		5611	72	80	0	1%	1%
	1991	T	S	-	5611 5607	72	82 227	0	0%	0% 0%
SLAVE LAKE	1992	T	S		5607	60 72	140	0	0%	0% 0%
	1993	т т	S S	*	5607	72	94	0 1	0% 1%	1%
SLAVE LAKE SLAVE LAKE PULP	1994 1991	ł	S		0	48	94 20	1 2	1%	1%
SLAVE LAKE PULP SLAVE LAKE PULP CORP.	1991	1	S		0	40 48	20 47	0	0%	2%
SLAVE LAKE PULP CORP.	1992	i i	S		0	40 48	47 18	0	0%	2% 0%
	1993	1	S	+	0	48	21	0	0%	0%
SLAVE LAKE PULP CORP. SMITH	1994	H	S	*	323	24	57	0	4%	4%
	1988	H	S	*	323	24	52	0	4%	4%
SMITH SMITH	1989	Н	S		323	24	52	0	2%	10%
SMITH	1990	H	S		323	24	52 54	1	2% 6%	6%
	1991	H	S	*	323	24 48	54 54	0	0%	0%
SMITH	1992	H	S		323	40 48	54 64	0	0%	0% 2%
SMITH	1993 1994	H	S	*	323	40 48	56	0	0%	2% 2%
		Ť	S	*	1086	40 48	104		1%	
	1988	т Т	S	+	1086	48 48	104	0		1%
	1989 1990	т Т	S	*	1086	48 48	106	0	0% 3%	1% 3%
SPIRIT RIVER SPIRIT RIVER	1990	T	S	*	1086	40 48	101	0	3% 0%	3% 0%
SFIRE RIVER	1991	1	3		1000	-10	102	0	0.70	0.70

Table 15: Listing of	All NRBS Faciliti	es With the Annual Microbial	Sampling Summary

					he Annual N				1 y	
LOCATION	YEAR	STATUS	TYPE	CL2	POPULATION		TOTSAM	TC>10,FC>0	% Coliform pos.	% POOR
SPIRIT RIVER	1992	Ť	S	*	1086	48	104	0	0%	0%
SPIRIT RIVER	1993	T	S	*	1086	48	99	0	0%	0%
SPIRIT RIVER	1994	Т	S	*	1086	48	86	0	1%	1%
ST. ISIDORE	1988	H	S	*	55	48	49	0	0%	0%
ST. ISIDORE	1989	н	S	*	55	48	54	0	0%	0%
ST. ISIDORE	1990	н	S	*	55	48	53	0	0%	2%
ST. ISIDORE	1991	н	S	:	55	48	50	0	2%	2%
ST. ISIDORE	1992	Н	S	-	55	48	50	0	0%	0%
ST. ISIDORE	1993	H	S	-	55	48	50	0	0%	0%
ST. ISIDORE	1994	H	S	-	55	48	84	0	0%	0%
STRONG CREEK	1988	WP	G		0	24	24	0	13%	13%
STRONG CREEK	1989	WP	G		0	24	23	0	10%	18%
STRONG CREEK	1990	WP	G		0	24	28	0	21%	21%
STRONG CREEK	1991	WP	G		0	24	24	0	5%	9%
STRONG CREEK	1992	WP	G		0	24	24	0	18%	22%
STRONG CREEK	1993	WP	G		0	24	25	0	11%	19%
STRONG CREEK	1994	WP	G		0	24	21	0	0%	10%
SUNCOR, TAR ISLAND, FT.MC	1991		S	*	2500	48	243	0	1%	4%
SUNCOR, TAR ISLAND, FT.MC	1992	1	S	*	2500	48	484	1	0%	1%
SUNCOR, TAR ISLAND, FT.MC	1993	I	S	*	2500	48	157	1	1%	1%
SUNCOR, TAR ISLAND, FT.MC	1994	I	S	*	2500	48	195	2	1%	3%
SUNSET HOUSE	1988	WP	G		0	24	51	0	2%	8%
SUNSET HOUSE	1989	WP	G	*	0	24	50	0	0%	2%
SUNSET HOUSE	1990	WP	G	*	0	24	52	0	0%	0%
SUNSET HOUSE	1991	WP	G	*	0	24	51	0	0%	0%
SUNSET HOUSE	1992	WP	G	*	0	24	53	0	0%	0%
SUNSET HOUSE	1993	WP	G	*	0	24	53	0	0%	2%
SUNSET HOUSE	1994	WP	G	*	0	24	58	0	0%	3%
SWAN HILLS	1988	Т	S&G	*	2407	48	54	0	15%	15%
SWAN HILLS	1989	Т	S&G	*	2407	48	59	1	5%	5%
SWAN HILLS	1990	Т	S&G	*	2407	48	48	0	0%	0%
SWAN HILLS	1991	Т	S&G		2407	48	54	1	2%	4%
SWAN HILLS	1992	Т	S	*	2407	48	50	1	2%	2%
SWAN HILLS	1993	Т	S	*	2407	48	47	0	0%	0%
SWAN HILLS	1994	т	S	*	2407	48	41	0	2%	2%
SWEATHOUSE	1988	WP	G		0	24	51	0	0%	2%
SWEATHOUSE	1989	WP	G		0	24	51	0	0%	0%
SWEATHOUSE	1990	WP	G		0	24	51	0	8%	8%
SWEATHOUSE	1991	WP	G		0	24	52	1	2%	2%
SWEATHOUSE	1992	WP	G		0	24	53	0	0%	0%
SWEATHOUSE	1993	WP	G		0	24	52	0	0%	0%
SWEATHOUSE	1994	WP	G		0	24	52	0	0%	0%
SYNCRUDE (FT.MCM)	1991	1	S	*	0	48	0	0		
SYNCRUDE (FT.MCM)	1992	1	S	*	0	48	0	0		
SYNCRUDE (FT.MCM)	1993	E	S	*	0	48	0	0		
SYNCRUDE (FT.MCM)	1994	L	S	*	0	48	0	0		
T&E TRAILER PARK	1989	MHP	G	*	150	48	59	0	4%	16%
T&E TRAILER PARK	1990	MHP	G	*	150	48	54	0	0%	4%
T&E TRAILER PARK	1991	MHP	G	*	150	48	50	0	0%	11%
T&E TRAILER PARK	1992	MHP	G	*	150	48	66	0	0%	23%
T&E TRAILER PARK	1993	MHP	G	*	150	48	22	0	0%	0%
T&E TRAILER PARK	1994	MHP	G	*	150	48	2	0	0%	0%
TANGENT	1988	н	S	*	60	48	97	0	0%	6%
TANGENT	1989	н	S	*	60	48	94	0	2%	10%
TANGENT	1990	н	S	*	60	48	79	0	0%	3%
TANGENT	1991	н	s	*	60	48	55	0	2%	7%
TANGENT	1992	Н	s	*	60	48	55	0	0%	8%
TANGENT	1993	н	s	*	60	48	89	1	1%	9%
TANGENT	1994	н	s	*	60	48	55	0	2%	9%
TEEPEE CREEK	1989	S	G		18	24	16	0	0%	0%
TEEPEE CREEK	1990	S	G		18	24	11	0	0%	0%
TEEPEE CREEK	1991	s	Ğ		18	24	10	0	0%	10%
TEEPEE CREEK	1992	s	Ğ		18	24	11	ů 0	0%	0%
		-	-					~	V/V	~ / V
TEEPEE CREEK	1993	S	G		18	24	4	0	0%	0%

Table 15: Listing of All NRBS Facilities With the Annual Microbial Sampling Summary

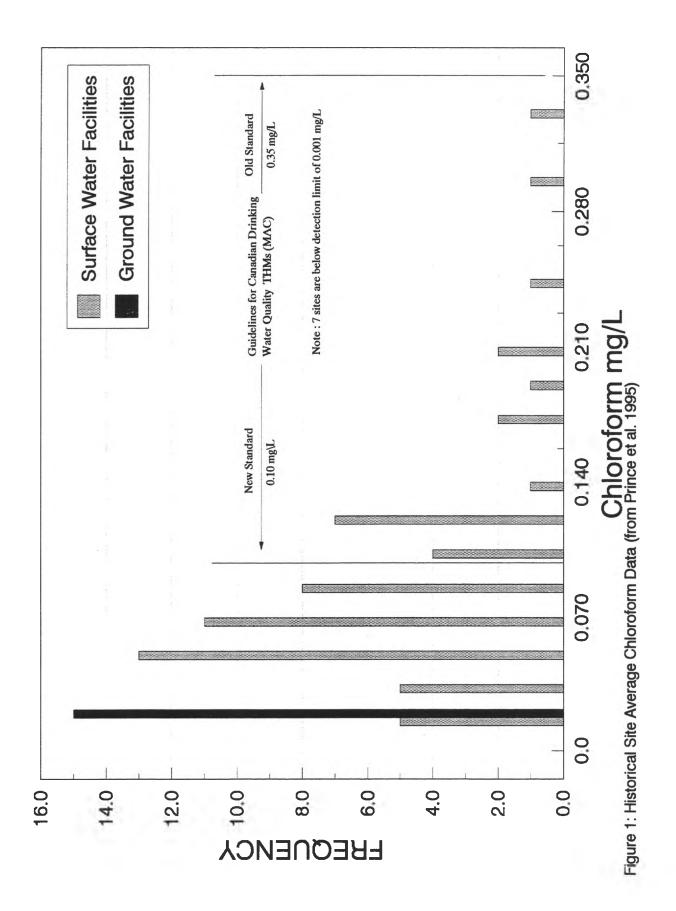
Table 15: Listing of All	NRB	S Facilit	ies W	ith t			Samplin	g Summa	ry	
LOCATION	YEAR	STATUS	TYPÉ	CL2	POPULATION		TOTSAM	TC>10,FC>0	% Coliform pos.	% POOR
TEEPEE CREEK	1994	S	G		18	24	5	0	0%	0%
THREE CREEKS	1988	WP	S	*	0	24	26	0	4%	4%
THREE CREEKS	1989	WP	S	*	0	24	30	0	14%	20%
THREE CREEKS	1990	WP	S	*	0	24	26	0	4%	12%
THREE CREEKS	1991	WP	S	*	0	24	24	0	8%	8%
THREE CREEKS	1992	WP	S	*	0	24	25	0	4%	8%
THREE CREEKS	1993	WP	S	*	0	24	29	0	4%	17%
THREE CREEKS	1994	WP	S	*	0	24	21	1	11%	19%
THUNDER LAKE PROV.PK.	1990	PP	G	*	0	48	0	0		
THUNDER LAKE PROV.PK.	1991	PP	G	*	0	48	45	0	9%	29%
THUNDER LAKE PROV.PK.	1992	PP	G	*	0	48	52	0	0%	2%
THUNDER LAKE PROV.PK.	1993	PP	G	*	0	48	65	1	3%	3%
THUNDER LAKE PROV.PK.	1994	PP	G	*	0	48	52	2	4%	6%
TOMPKINS LANDING SCHOO	1991	S	S	*	0	24	44	0	0%	0%
TOMPKINS LANDING SCHOO	1992	S	S	*	0	24	35	0	0%	0%
TOMPKINS LANDING SCHOO	1993	S	S	*	0	24	36	0	0%	0%
TOMPKINS LANDING SCHOO	1994	S	S	*	0	24	34	0	0%	0%
TRIPLE L T.P.	1989	MHP	G	*	300	48	56	0	2%	7%
TRIPLE L T.P.	1990	MHP	G	*	300	48	53	0	0%	2%
TRIPLE L T.P.	1991	MHP	G	*	300	48	53	0	0%	0%
TRIPLE L T.P.	1992	MHP	G	*	300	48	53	1	2%	4%
TRIPLE L T.P.	1993	MHP	G	*	300	48	44	0	5%	5%
TRIPLE L T.P.	1994	MHP	G	*	300	48	46	3	17%	17%
TROUT LAKE	1988	WP	G	*	202	24	13	0	36%	46%
TROUT LAKE	1989	WP	G	*	202	24	11	0	0%	0%
TROUT LAKE	1990	WP	G	*	202	24	48	0	10%	16%
TROUT LAKE	1991	WP	G	+	202	24	54	0	9%	18%
TROUT LAKE	1992	WP	G	*	202	48	50	0	0%	0%
TROUT LAKE	1993	WP	G	*	202	48	44	0	2%	2%
TROUT LAKE	1994	WP	G	*	202	48	52	0	0%	2%
TROUT LAKE (KATERI)	1989	S	S	*	100	24	3	0	33%	33%
TROUT LAKE (KATERI)	1990	S	S	*	100	24	0	0		
TROUT LAKE (KATERI)	1991	S	S	*	100	24	4	0	0%	0%
TROUT LAKE (KATERI)	1992	S	S	*	100	24	41	3	14%	22%
TROUT LAKE (KATERI)	1993	S	s	*	100	24	8	0	25%	25%
TROUT LAKE (KATERI)	1994	S	S	*	100	24	0	0		
VALHALLA	1989	S	G		0	24	16	0	0%	0%
VALHALLA	1990	S	G		0	24	10	0	0%	0%
VALHALLA	1991	S	G		0	24	9	0	0%	56%
VALHALLA	1992	S	G		0	24	36	0	8%	67%
VALHALŁA	1993	S	G		0	24	4	0	0%	0%
VALHALLA	1994	S	G		0	24	6	0	0%	17%
WABASCA	1988	н	S	*	620	48	51	0	0%	4%
WABASCA	1989	н	S	*	620	48	38	1	5%	5%
WABASCA	1990	Н	S	*	620	48	52	0	0%	0%
WABASCA	1991	H	S	*	620	48	53	1	2%	6%
WABASCA	1992	н	S	*	620	48	21	0	0%	7%
WABASCA	1993	н	S	*	620	48	57	0	0%	0%
WABASCA	1994	Н	S	*	620	48	75	1	6%	7%
WANDERING RIVER	1988	н	S	*	43	48	97	1	3%	6%
WANDERING RIVER	1989	Н	S	*	43	48	88	3	14%	18%
WANDERING RIVER	1990	Н	S	*	43	48	97	0	1%	1%
WANDERING RIVER	1991	Н	S	*	43	48	95	0	1%	2%
WANDERING RIVER	1992	н	S	*	43	48	112	0	0%	0%
WANDERING RIVER	1993	Н	S	*	43	48	98	0	0%	0%
WANDERING RIVER	1994	н	S	*	43	48	78	1	3%	3%
WANHAM	1988	V	S	*	238	48	99	0	0%	0%
WANHAM	1989	V	S	*	238	48	79	0	0%	0%
WANHAM	1990	V	S	*	238	48	78	1	3%	3%
WANHAM	1991	V	s	*	238	48	91	0	0%	0%
WANHAM	1992	V	s	*	238	48	86	0	0%	0%
WANHAM	1993	V	s	*	238	48	83	0	1%	1%
WANHAM	1994	V	s	*	238	48	79	0	0%	0%
WARRENSVILLE	1988	WP	G		0	24	25	0	28%	28%

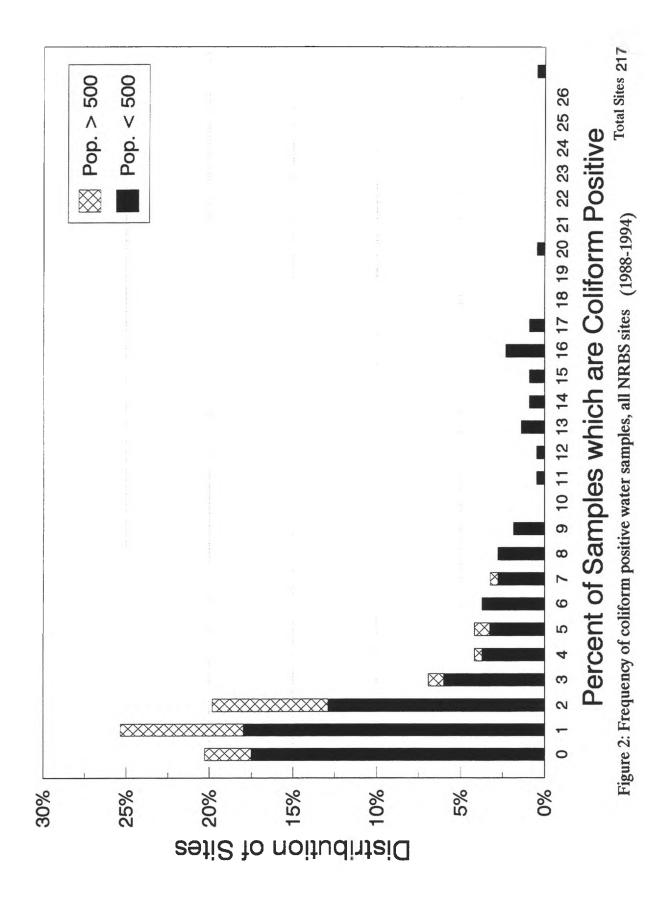
Table 15: Listing of All NRBS Facilities With the Annual Microbial Sampling Summary

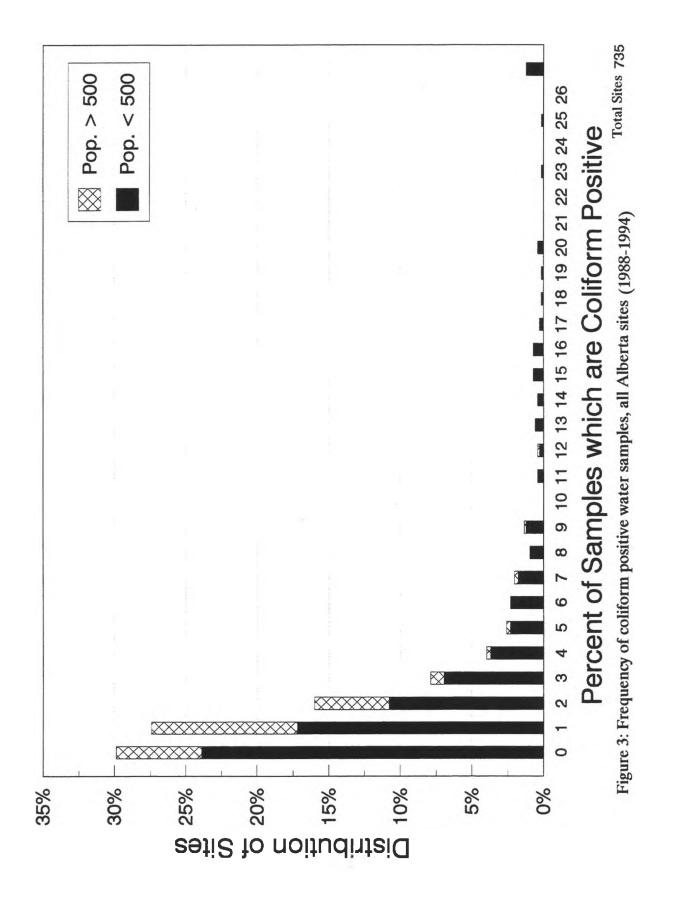
Table 15: Listing of A	II NRB.	S Facilit	ies W	<u>ith</u> t	he Annual M	Microbial	Samplin	g Summa	ry	
LOCATION	YEAR	STATUS	TYPE	CL2	POPULATION	NO REQD	TOTSAM	TC>10,FC>0	% Coliform pos.	% POOR
WARRENSVILLE	1989	WP	G		0	24	32	0	21%	23%
WARRENSVILLE	1990	WP	G		0	24	32	1	28%	28%
WARRENSVILLE	1991	WP	G		0	24	28	0	11%	11%
WARRENSVILLE	1992	WP	G		0	24	27	0	7%	7%
WARRENSVILLE	1993	WP	G		0	24	19	0	0%	0%
WARRENSVILLE	1994	WP	G		0	24	14	0	14%	14%
WATINO	1988	WP	G		66	24	52	1	7%	22%
WATINO	1989	WP	G		66	24	54	0	15%	25%
WATINO	1990	WP WP	G		66 66	24	50 56	0	2%	6%
WATINO WATINO	1991 1992	WP	G		66	24 24	32	8 1	31% 12%	38%
WATINO	1992	WP	G		66	24	23	3	23%	26% 57%
WATINO	1994	WP	G		66	24	9	1	13%	22%
WEBERVILLE (#1)	1988	WP	G		0	24	27	Ō	33%	33%
WEBERVILLE (#1)	1989	WP	G		õ	24	26	ĩ	12%	15%
WEBERVILLE (#1)	1990	WP	G		õ	24	29	ō	21%	24%
WEBERVILLE (#1)	1991	WP	G		0	24	29	0	4%	17%
WEBERVILLE (#1)	1992	WP	G		0	24	24	0	4%	4%
WEBERVILLE (#1)	1993	WP	G		0	24	27	0	4%	4%
WEBERVILLE (#1)	1994	WP	G		0	24	19	2	33%	33%
WEBERVILLE (#2)	1988	WP	G		100	24	26	0	4%	4%
WEBERVILLE (#2)	1989	WP	G		100	24	26	0	4%	8%
WEBERVILLE (#2)	1990	WP	G		100	24	30	0	13%	13%
WEBERVILLE (#2)	1991	WP	G		100	24	26	0	0%	0%
WEBERVILLE (#2)	1992	WP	G		100	24	24	0	4%	4%
WEBERVILLE (#2)	1993	WP	G		100	24	17	0	6%	6%
WEBERVILLE (#2)	1994	WP	G		100	24	11	0	30%	30%
WELDWOOD OF CAN.(HINT	1991		S	*	0	52	53	0	0%	0%
WELDWOOD OF CAN.(HINT	1992		S	*	0	52	53	0	0%	0%
WELDWOOD OF CAN. (HINT	1993		S S	*	0	52 52	50 42	0	4%	4%
WELDWOOD OF CAN.(HINT	1994	Ť	G		1227	52 24	43 52	0	0%	0%
WEMBLEY	1988 1989	Ť	G		1264	24 48	52 51	0	2% 0%	8% 0%
WEMBLEY WEMBLEY	1989	Ť	G		1264	48	52	0	0%	4%
WEMBLEY	1990	Ť	G		1264	48	56	1	2%	2%
WEMBLEY	1992	Ť	G		1264	48	52	0	0%	0%
WEMBLEY	1993	Ť	G		1264	48	55	Ő	4%	4%
WEMBLEY	1994	Ť	G		1264	48	44	0 0	2%	7%
WESTLOCK	1988	Ť	s	*	4463	48	52	Ō	0%	0%
WESTLOCK	1989	Т	S	*	4463	48	51	0	0%	0%
WESTLOCK	1990	т	S	*	4463	48	52	0	0%	0%
WESTLOCK	1991	Т	S		4463	48	53	0	0%	0%
WESTLOCK	1992	т	S	*	4463	48	52	0	0%	2%
WESTLOCK	1993	т	S	*	4463	48	54	1	2%	2%
WESTLOCK	1994	т	S	*	4719	48	42	0	0%	0%
WESTWIND	1989	MHP	S	*	130	24	50	1	11%	18%
WESTWIND	1990	MHP	S	*	130	24	49	0	2%	8%
WESTWIND	1991	MHP	S	*	130	24	54	0	0%	0%
WESTWIND	1992	MHP	S	*	130	24	50	0	2%	2%
WEYERHAEUSER (GR.PR.)	1992	1	S	*	0	48	58	2	5%	7%
WEYERHAEUSER (GR.PR.)	1993	1	S	*	0	48	19	0	0%	0%
WEYERHAEUSER (GR.PR.)	1994		S		0	48	65	6	11%	23%
WHITE GULL	1990	SV	G		0	12	4	0	0%	0%
WHITE GULL	1991	SV	G		0	12	6	0	0%	17%
WHITE GULL	1992	sv sv	G G		0	12 12	7 5	0	0%	0%
WHITE GULL WHITE GULL	1993 1994	SV	G		0	12	5	0 0	0% 20%	0% 20%
WHITECOURT	1994	T	S	*	6126	72	68	0	20%	20% 0%
WHITECOURT	1988	Ť	s	+	6560	84	87	0	0%	0% 0%
WHITECOURT	1989	Ť	S	*	6692	84	80	0	0%	0%
WHITECOURT	1990	Ť	s	*	6692	84	99	0	2%	2%
WHITECOURT	1992	Ť	s	*	6922	72	94	0	0%	0%
WHITECOURT	1993	Ť	s	*	7056	96	92	0	1%	1%
WHITECOURT	1994	Ť	s		7056	96	84	0	0%	0%
WAITECOURT	1994	1	3	-	1000	30	64	U	U%	0%

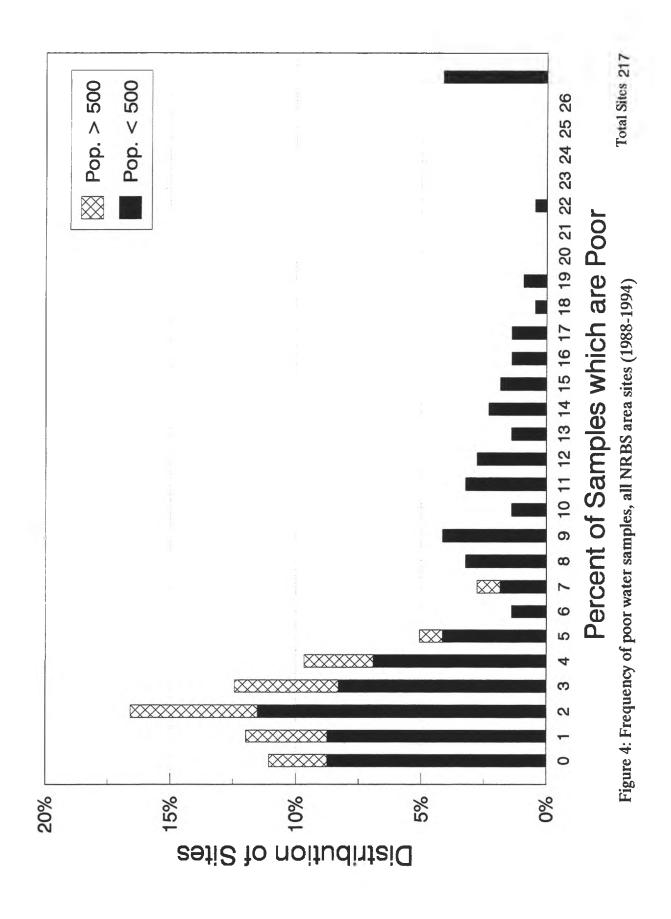
Table 15: Listing of All NRBS Facilitie	es With the Annual	Microbial Sampling Summary
radie is. Eleting of the trubb radius		

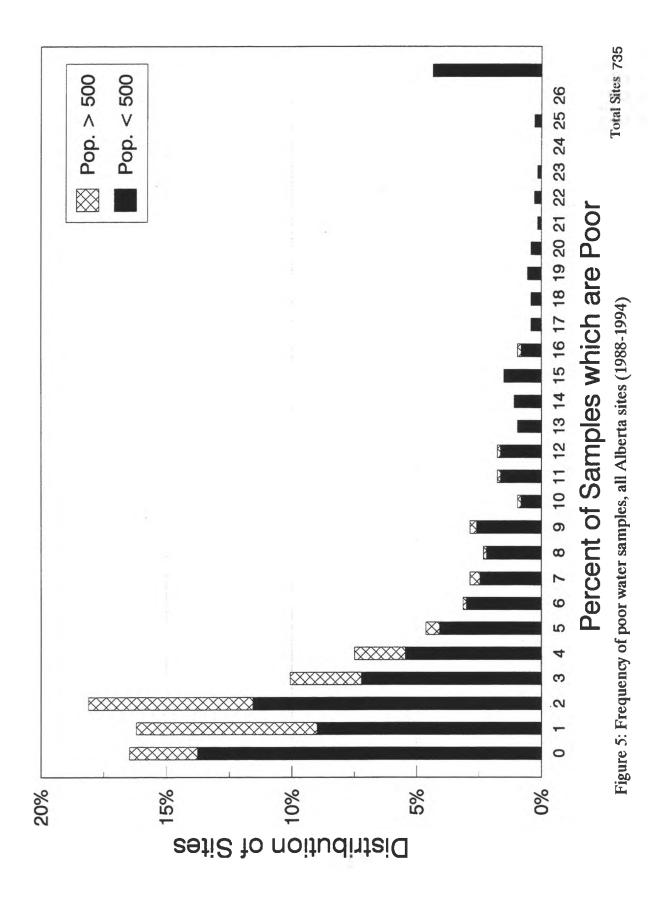
Table 15: Listing of Al										
LOCATION	YEAR	STATUS		CL2	POPULATION		TOTSAM	TC>10,FC>0	% Coliform pos.	% POOR
WHITELAW SPRING	1988	WP	G		0	24	27	0	11%	11%
WHITELAW SPRING	1989	WP	G		0	24	27	0	4%	4%
WHITELAW SPRING	1990	WP	G		0	24	25	0	4%	4%
WHITELAW SPRING	1991	WP	G		0	24	31	0	0%	0%
WHITELAW SPRING	1992	WP	G		0	24	9	0	0%	0%
WHITELAW SPRING	1993	WP	G		0	24	4	0	0%	0%
WHITELAW SPRING	1994	WP	G		0	24	2	0	50%	50%
WILDWOOD	1988	V	G	*	361	48	45	0	0%	5%
WILDWOOD	1989	V	G	*	353	48	29	0	0%	0%
WILDWOOD	1990	V	G		353	48	41	0	5%	5%
WILDWOOD	1991	V	G	*	353	48	42	0	3%	3%
WILDWOOD	1992	V	G	*	353	48	46	0	0%	0%
WILDWOOD	1993	V	G	*	353	48	43	0	0%	0%
WILDWOOD	1994	V	G	*	353	48	43	0	0%	0%
WILLIAMSON PROV.PK.	1992	PP	G	*	0	20	19	0	0%	0%
WILLIAMSON PROV.PK.	1993	PP	G	*	0	20	16	0	0%	0%
WILLIAMSON PROV.PK.	1994	PP	G	•	0	20	11	0	0%	0%
WILLOW GROVE T.P.(HYTHE	1992	SD	G	*	0	48	54	0	0%	0%
WILLOW GROVE T.P.(HYTHE	1993	SD	G	*	0	48	52	0	0%	0%
WILLOW GROVE T.P.(HYTHE	1994	SD	G	*	0	48	42	0	0%	0%
WINAGAMI LAKE P.P.	1989	PP	S	*	0	48	32	0	8%	25%
WINAGAMI LAKE P.P.	1990	PP	S	*	0	48	30	0	0%	19%
WINAGAMI LAKE P.P.	1991	PP	S	*	0	16	75	0	7%	16%
WINAGAMI LAKE P.P.	1992	PP	S	*	0	16	144	3	4%	4%
WINAGAMI LAKE P.P.	1993	PP	S	*	0	16	142	4	4%	4%
WINAGAMI LAKE P.P.	1994	PP	S	*	0	16	128	3	5%	8%
WOKING	1989	н	S	*	106	48	100	0	1%	3%
WOKING	1990	н	s	*	106	48	96	0	0%	3%
WOKING	1991	н	s	*	106	48	98	0	1%	8%
WOKING	1992	н	s	*	106	48	96	0	0%	0%
WOKING	1993	н	s	*	106	48	98	0	0%	3%
WOKING	1994	н	s	*	106	48	82	2	4%	4%
WORSLEY	1989	н	S	*	89	48	48	0	0%	0%
WORSLEY	1990	н	S	*	89	48	51	0	0%	0%
WORSLEY	1991	н	s	*	89	48	49	0	0%	0% .
WORSLEY	1992	н	s	*	89	48	49	0	0%	0%
WORSLEY	1993	н	s	*	89	48	54	0	0%	2%
WORSLEY	1994	н	S	*	89	48	43	1	2%	2%
ZAMA	1989	н	G	*	300	48	55	0	0%	10%
ZAMA	1990	Н	G	*	300	48	85	0	0%	0%
ZAMA	1991	H	G	*	300	48	105	1	1%	2%
ZAMA	1992	Ĥ	Ğ	+	300	48	94	0	1%	1%
ZAMA	1993	Н	Ğ	*	300	48	76	I	1%	1%
ZAMA	1994	Н	G	*	300	48	73	ō	0%	0%
		• •	-				-			











Appendix A: Terms Of Reference

#### NORTHERN RIVER BASINS STUDY

## **SCHEDULE A - TERMS OF REFERENCE**

# Project 4422-D1 An Assessment of Drinking Water Quality for Alberta Communities in the Peace, Athabasca and Slave River Basins

### I. BACKGROUND & OBJECTIVES

The quality of drinking water is primarily dependent on raw water quality, the treatment processes used, and the distribution system. This study proposes a detailed evaluation of these components and the factors that affect them for a selection of communities in the Northern River Basins study area.

The quality of the raw water is an important factor to the overall quality of drinking water. While very advanced treatment processes that can treat even extremely polluted waters to acceptable standards exist, raw water of higher quality requires less effort and sophistication in treatment to reach acceptable standards. The sampling and analyzing of the untreated river water will indicate the raw water quality and the level of pollution from point and non-point sources.

An important factor to the drinking water quality is the operation and maintenance of the treatment facilities. Most of the treatment systems used in the Northern River Basins consist of combinations of conventional water treatment processes. These processes may include coagulation, flocculation, sedimentation, filtration, and disinfection. The conventional water treatment processes have proven capable of meeting drinking water guidelines given a reasonable quality of raw water and proper operation and maintenance. The water treatment practices of the selected communities will be assessed by conducting site visits and inspections of water treatment facilities.

The maintenance and design of the distribution system are important in delivering high quality water to the public. The effort spent on providing the highest raw water quality and providing the highest level of treatment is futile if water quality deteriorates in poorly maintained distribution systems. Sampling of drinking water delivered through the distribution systems of the selected communities will show any deterioration occurring in the systems. The drinking water quality delivered to the public will be compared to drinking water standards and guidelines.

#### Objectives

Based on the results from project 4421-C1 and any new information available:

- 1. Evaluate and assess the quality of raw water to be used for drinking water.
- 2. Evaluate the effectiveness of treatment systems used to remove contaminants identified in A.1.

3. Evaluate the effect of distribution systems on the quality of drinking water.

# II. REQUIREMENTS

## A. Assessment of the Quality of Raw Water Used for Drinking Water

- 1. Finalize of list of representative sites from the Northern River Basins study area (from 4422-C1) for in-depth investigation (roughly 40 sites).
- 2. Development of a site study protocol for sampling of raw river water
- 3. Execution of summer and winter sampling programs.
- 4. Analysis of collected samples for substances listed in Appendix I.
- 5. Prepare an interpretation which discusses the quality of raw water in relation to the drinking water quality guidelines and the factors affecting raw water quality.

# **B.** Assessment of the Effectiveness of Treatment Systems Used to Remove Contaminants

- 1. Develop a site study protocol for sampling of treated drinking water and facility inspections.
- 2. Execution of summer and winter sampling programs.
- 3. Analysis of collected samples for substances listed in Appendix I.
- 4. Assess and evaluate the practices of selected communities by conducting site visits and inspections of water treatment facilities using the protocols developed in B.1.
- 5. Prepare an interpretation which discusses the quality of treated water in relation to drinking water quality guidelines and the factors affecting drinking water quality.

#### C. Effect of distribution Systems on Drinking Water Quality

- 1. Establish sampling locations on water distribution systems to determine how drinking water quality is affected by these systems.
- 2. Describe the distribution system eg. age, material, type, soil problems etc.
- 3. Sample and analyze water samples from the locations selected in C.1.

4. Prepare an interpretation which discusses the effect of the distribution system on the quality of drinking water in relative to the drinking water quality guidelines.

# III. DELIVERABLES

- 1. Draft Interpretive report 10 copies due March 31, 1995
- 2. Prepare 35 mm slides for use in presentations. These would include photographs of relevant items such as water treatment plants, examples of deteriorating pipe etc. and a summary of the main findings of your investigation.

# **IV. REPORTING REQUIREMENTS**

- 1) The Contractor is to provide draft and final reports in the style and format outlined in the NRBS Style Manual. A copy of the Style Manual entitled "A Guide for the Preparation of Reports" will be supplied to the contractor by the NRBS.
- 2) Ten copies of the Draft Report along with an electronic disk copy are to be submitted to the Project Liaison Officer by March 31, 1995.

Three weeks after the receipt of review comments on the draft report, the Contractor is to provide the Project Liaison Officer with two unbound, camera ready copies and ten cerlox bound copies of the final report along with an electronic version.

3) The final report is to include the following: An acknowledgement section that indicates any local involvement in the project, Project Summary, Table of Contents, List of Tables, List of Figures and an Appendix with the Terms of Reference for this project.

Text for the report should be set up in the following format:

- a) Times Roman 12 point (Pro) or Times New Roman (WPWIN60) font.
- b) Margins; are 1" at top and bottom, 7/8" on left and right.
- c) Headings; in the report body are labelled with hierarchical decimal Arabic numbers.
- d) Text; is presented with full justification; that is, the text aligns on both left and right margins.
- e) Page numbers; are Arabic numerals for the body of the report, centred at the bottom of each page and bold.
- If photographs are to be included in the report text they should be high contrast black and white.
- All tables and figures in the report should be clearly reproducible by a black and white photocopier.

- Along with copies of the final report, the Contractor is to supply an electronic version of the report in Word Perfect 5.1 or Word Perfect for Windows Version 6.0 format.
- Electronic copies of tables, figures and data appendices in the report are also to be submitted to the Project Liaison Officer along with the final report. These should be submitted in a spreadsheet (Quattro Pro preferred, but also Excel or Lotus) or database (dBase IV) format. Where appropriate, data in tables, figures and appendices should be geo-referenced.
- 4. All figures and maps are to be delivered in both hard copy (paper) and digital formats. Acceptable formats include: DXF, uncompressed E00, VEC/VEH, Atlas and ISIF. All digital maps must be properly geo-referenced.
- 5. All sampling locations presented in report and electronic format should be georeferenced. This is to include decimal latitudes and longitudes (to six decimal places) and UTM coordinates. The first field for decimal latitudes / longitudes should be latitudes (10 spaces wide). The second field should be longitude (11 spaces wide).

# V. CONTRACT ADMINISTRATION

The Project Liaison Officer for this project is:

James Choles Office of the Science Director Northern River Basins Study 690 Standard Life Centre 10405 Jasper Avenue Edmonton, Alberta T5J 3N4

Home Phone: (403) 455-4812 Bus. Phone: (403) 427-1742 Fax: (403) 422-3055

#### **APPENDIX** 1

The following is a summary of the analyses to be performed on the samples taken for the evaluation of drinking water quality.

#### **Field Analyses**

pH Turbidity Total Chlorine Free Chlorine Ammonia Conductivity Colour Zeta potential Odour Flavour

# **Non-field Analyses**

Total Heterotropic Bacteria Total Coliforms Fecal Coliforms Fecal Streptococcus species Yeasts and Molds Klebsiella species Corrosion microorganisms (iron-reducers, iron oxidizers, sulphate reducers, sulphite reducers, thiosulphate reducers)

Appendix B: Site Selection Information

# Table A-1

#### Treated Water Survey

			Tota	d Dissolve	d Solids (m	ug∕L)				pH (pH			
LOCATION	TYPE	1000	UPPER	LOWER	SAMPLES	# SAMPLES	Percentile		UPPER	LOWER 95%		# SAMPLES	Percentile
		MEAN	95% LIMIT	95% LIMIT	>MLD	TAKEN	GROUP	MEAN	95% LEMIT	LIMIT	>MLD	TAKEN	GROUP
Total Ground Water		606	1204	305	40	40		8.1	9.0	7.3	40	40	
BERWYN	G	390	433	352	2	2	10%	8.3			Z	2	66%
BLUE RIDGE	Q.	670		876	1	1	61%	8.7			1 2	L n	92%
CLARMONT	0 0	917 920	959 937	876 903	2	2 2	88% 88%	8.7 7.9	9.0 7.9	8.4 7.9	2	2	90% 31%
CYNTHIA	0	682	337	<b>94</b> 5	ĩ	i	63%	8.7		1.5	i	î	92%
DEBOLT	G	662	673	651	2	2	60%	8.7	8,7	8.6	2	2	89%
EDSON	0	\$20	608	445	6	6	33%	8.2	8.6	7.8	6	6	57%
ENTWISTLE	0	475	481	470	2	2	24%	7.8	8.0	7.7	2	2	25%
EVANSBURG FAWCETT	G	514	515	512	2	2	32% 57%	7.9 8.2	8.0	7.8	2	2	33% 58%
FORT ASSINIBOINE	a	644 372	374	371	2	2	8%	7.6	7.7	7.5	2	2	11%
FOR CREEK	ā	440	562	344	3	3	18%	7.9	8.0	7.7	3	3	30%
GRUMSHAW	G	404	408	399	2	2	12%	7.2	8.3	6.3	2	2	2%
JARVIE	G	651			1	1	58%	8.1			1	1	50%
LA CRETE	a a	398	437	363	2	2	11% 83%	7.6	7.8	7.4	2	2	12%
MAYERTHORPE	G	843 922	852	833	2	2	85%	8.0 8.6	8.0	8.0	í	2	43% 86%
SANGUDO	a	904	928	881	2	2	87%	8.3	8.4	8.1	2	2	64%
TROUT LAKE	g	365			ĩ	ĩ	7%	8.4			ĩ	ĩ	74%
WILDWOOD	G	699			1	1	66%	8.2			1	1	57%
ZAMA	0	1099	1269	952	2	2	96%	7.5	7.5	7.5	2	2	6%
Total Surface Water		232	570	94 79	377	377	14%	7.7 B.1	8.4 8.3	7.0 7.9	377	377	20%
ANZAC ATHABASCA	s s	140 234	248 370	148	30	2 30	51%	7.6	83	7.0	30	30	46%
BARRHEAD	s	410	569	295	\$	9	89%	8.2	85	7.9	9	9	90%
BEAVERLODGE	s	300	371	242	3	3	71%	7.6	7.9	7,4	3	3	45%
BLUESKY	s	182	308	107	3	3	30%	7.9	9.2	6.9	3	3	76%
BOYLE	s	227	524	99	2	2	48%	8.5	10.0	7.2	2	2	98%
BRULE CALLING LAKE	S S	200	126	87	1	1 2	37% 4%	8.2 8.0	8.4	7,7	1 2	1 2	91% 82%
CANYON CREEK	s	97	120	• '	í	1	3%	7,7		1.1	i i	í	49%
CLEARDALE	s	269	357	203	2	2	63%	6.7	7.5	6.0	2	2	0%
DESMARAIS	s	325	337	314	3	3	77%	7.6	8.0	7.3	3	3	47%
DONNELLY	\$	412	426	398	2	2	89%	8.0	8.2	7.8	2	2	79%
EAGLESHAM	s	296	428	204	3	3	70%	7.2	7.5	7.0	3	3	11%
FAIRVIEW FALHER	s s	178 430	282 591	113 312	4	-	28% 91%	7.3 7.4	7 <u>.5</u> 8.1	7.2 6.7	4	7	18% 20%
FAUST	s	123	152	99	5	s	8%	7.9	8.2	7.7	Ś	5	73%
FORT CHIPEWYAN	s	78	122	50	2	2	1%	7.3	7.9	6.8	2	2	15%
FORT MACKAY	s	143			L	1	15%	7.7			1	1	57%
FORT MCMURRAY	s	222	330	149	56	56	46%	7.9	8.6	7.2	56	56	68%
FORT VERMILION	s s	135 249	142 340	128 183	3 5	3 5	12%	7.8 7.5	8.0 8.1	7.6 6.9	3 5	3 5	66% 33%
GEFT LAKE GEROUXVILLE	\$	378	390	366	3	3	86%	7.5	8.0	7.1	3	3	32%
GRANDE CACHE	s	192	234	158	9	9	34%	8.2	8.6	7.7	9	9	90%
ORANDE PRAIRIE	s	182	262	127	25	25	30%	7.8	8.5	7.3	25	25	66%
GROUARD	\$	311	525	184	5	5	74%	7.3	8.1	6.6	5	5	14%
GUY	s	247	309	198	2	2	56%	7.5	8.0	7.1	2	2	32%
HIGH LEVEL HIGH PRAIRE	s s	539 271	822 382	353 193	4 10	4	97% 63%	7.8 7.2	8.6 8.4	7.1 6.2	4	4 10	65% 11%
HINES CREEK	5	266	382	214	6	6	62%	7.2	7.9	6.6	6	6	10%
HENTON	s	158	222	113	17	Ĩ7	20%	7.9	8.7	7.1	17	17	70%
JANVIER	s	133	344	51	2	2	11%	7.0	8.7	5.6	2	2	3%
JEAN COTE	s	318	437	231	3	3	75%	7.6	7.9	7.3	3	3	42%
JOUSSARD	s	141	160	125	3	3	14%	7.9	8.0	7.9	3	3	76%
LAC LA BICHE LOON LAKE	s s	168 350	211 443	134 276	7	7 2	24% 81%	8.4 7.7	8.8 8.4	7.9 7.0	7 2	7 2	96% 53%
MANNENG	s	337	483	235	7	7	79%	7.5	7.8	7.2	7	7	31%
MARIE REINE	s	430			1	1	91%	8.2	-	-	I	1	92%
MCLENNAN	s	353			6	6	82%	7.4	_	_	6	6	24%
NAMPA	s	317	444	226	3	3	75%	7.7	7.9	7.5	3	3	55%
NEERLANDIA PADDLE PRAIRIE	S S	398 322	406 425	390 243	2	2	88% 76%	7.7 7.6	9.1 7.7	6.5 7.5	2 3	2	54% 40%
PADDLE PRAIRE PEACE RIVER	5 S	121	425	243	22	22	8%	7.6	8.3	6.6	22	22	22%
PEERLESS LAKE	5	115	136	98	3	3	6%	8.1	8.1	8.0	3	3	85%
PEORIA	s	575			L	1	98%	8.2			1	1	91%
PLAMONDON	s	270	560	130	2	2	63%	7.9	8.8	7.1	2	2	73%
RAINBOWLAKE	s	227	263	196	4	4	48%	7.5	8.1	7.0	4	4	34%
RYCROFT SANDY LAKE	s s	310 184	613 189	157 180	6 2	6 2	74% 31%	7.6 7.9	7.8 8.7	7.3 7.3	6 2	6 2	39% 76%
SANDY LAKE	s	122	189	84	11	ú	8%	7.6	8.2	7.5	11	11	41%
SMITH	s	235	360	153	3	3	51%	7.9	8.5	7.4	3	3	76%
SPIRIT RIVER	s	431	498	373	3	5	91%	7.7	7.9	7.5	5	5	55%
ST. ISEDORE	s	467			1	1	94%	7.3			1	1	17%
SWAN HILLS	s	130	171	98	3	5	10%	8.3	8.5	8.1	5	5	95%
TANGENT	s s	212	491	110	1 10	1	42%	8.3 7.1	8.2	6.3	10	1 10	94% 7%
VALLEYVIEW WABASCA	s	131	293	59	2	2	11%	7.4	7.4	6.3 7.3	2	2	19%
WANDERING RIVER	s	157	301	82	3	3	20%	7.4	8.8	6.2	3	3	23%
WANHAM	s	369	559	244	4	4	84%	7.0	7.2	6.7	4	4	2%
WESTLOCK	s	222	409	120	6	6	46%	7.8	8.8	6.9	6	6	62%
WHITECOURT	s	218	304	157	11	11	45%	7.8	8.6 1.0	7.1	11	11	64%
WOKING	s s	282 236	413 401	193 138	2 4	2 4	67% 51%	7.5 7.3	7.9 7.5	7.0 7.1	2 4	2 4	28% 13%
WORSLEY													

Treated Water Survey

				Turbudte	y (NTU)					Total Used	necc (ma ^{/I}	)	
LOCATION	TYPE	}	UPPER	LOWER	SAMPLES	# SAMPLES	Percentile		UPPER	Total Hard	SAMPLES	* SAMPLES	Percentile
Location	TITL	MEAN	95%	95%	>MLD	TAKEN	WITHIN	MEAN	95%	95%	>MLD	TAKEN	WITHEN
			LIMIT	LIMIT			GROUP		LIMIT	LIMIT			GROUP
Total Ground Water		0.35	3.21	0.04	20	24		96	1593	6	39	40	
BERWYN BLUE RIDGE	C C	0.10			1	1	13% 31%	303	335	274	2	2	79%
CLAIRMONT	G	0.46	1 48	0.14	2	2	59%	11			1	1	7% 3%
COLINTON	0	0.22			1	ĩ	34%	171	197	149	2	2	66%
CYNTHIA	O .				0	0		8			1	1	4%
DEBOLT	0	0,40			2	2	55%	17	22	14	2	2	12%
EDSON	0	0.39	0.79	0.19	2	3	54%	78	241	25	6	6	44%
ENTWESTLE EVANSBURG	C G				0	0		442 203	451 250	432 166	2	2 2	86% 70%
FAWCETT	G	0.17			1	ĩ	26%	119	200	100	í	i	56%
FORT ASSINIBUNE	g	0.04			1	2	3%	346	353	340	2	2	81%
FOX CREEK	G	0.70			1	L	73%	152	163	143	3	3	63%
GRIMSHAW	G				0	1		331	344	319	2	2	81%
JARVIE	0	0.40			1	1	53%	210			1	1	71%
LA CRETE MAYERTHORPE	0 G	0.22	0.52	0.09	2	2	34%	166 119	214 133	129 107	2	2	65%
PEROCH	0	0.63			ĩ	1	70%	13	133	10)	2	2	56% 8%
SANGUDO	0	0.20			i	1	31%	24	34	16	2	2	17%
TROUTLAKE	9	2.50			1	1	96%	269			1	1	76%
WILDWOOD	ø				0	0		207			1	1	70%
ZAMA	0	3.48	4.78	2.53	2	2	98%	689	1153	412	2	2	92%
Total Sugare Water ANZAC	s	0.69 0.21	4.14	0.12	333	359 2	10%	154 89	372	64 25	377	377	114
ATHABASCA	s s	0.21	1.01	0.07	27	30	15%	140	315	25 54	2 30	2 30	11% 41%
BARRHEAD	5	0.35	0.93	0.13	7	7	22%	176	268	116	9	9	41%
BEAVERLODGE	s	0.16	0.79	0.03	3	3	5%	183	202	166	3	3	65%
BLUESKY	s	3.37	12.47	0.91	2	3	96%	121	257	\$7	3	3	29%
BOYLE	s	0.90	5.21	0.16	2	2	61%	156	218	111	2	2	51%
BRULE CALLING LAKE	s S	0.30	0.79	0.19	1	1	18%	190 89	110	72	1	1	68%
CANYON CREEK	s	0.39	9.73	9.17	1	1	20%	73	110	12	2	2 1	11% 5%
CLEARDALE	s	0.23			1	2	11%	177	238	132	2	2	62%
DESMARAIS	s	0.38	1.57	0.09	3	3	25%	146	199	107	3	3	45%
DONNELLY	s	0.39	0.42	0.36	2	2	26%	291	303	279	2	2	92%
EAGLESHAM	s	0.62	0.99	0.39	3	3	45%	215	308	150	3	3	77%
FAIRVIEW	s	0.29	0.49	0.18	4	4	17%	137	207	91	4	4	40%
FAUST	s s	0.54	3.58 2.81	0,08	5	7	39%	301 92	451 117	200 73	7 5	7	93%
FORT CHIPEWYAN	s	0.21	0.26	0.18	2	2	10%	34	37	32	2	5	13%
FORT MACKAY	s	0.39			1	ī	26%	91		22	ī	ī	12%
FORT MCMURRAY	s	0.43	3.05	0.06	46	47	29%	150	242	92	56	56	47%
FORT VERMILION	s	1.62	104.42	0.03	3	3	82%	119	133	107	3	3	28%
GIFT LAKE GROUXVILLE	s s	0.28 0.84	1.43 3.62	0.05	5	5	16% 58%	152 278	175	132	5	5	48%
GRANDE CACHE	s	0.49	1.70	0.14	9	9	35%	181	319 235	241 140	3	3 9	90% 64%
GRANDE PRAIRIE	s	0.30	1.35	0.07	19	24	18%	161	235	110	25	25	54%
GROUARD	s	1.16	13.9B	0.11	5	5	71%	208	342	126	5	5	75%
GUY	s	3.57	6.37	2.00	2	2	96%	183	220	153	2	2	65%
HIGH LEVEL	s	0.75	1.78	0.32	3	3	\$3%	213	259	175	4	4	76%
HIGH PRAIRIÉ HINES CREEK	S S	0.58	1.84 3.90	0.18	10 6	10 6	43%	155 170	207	116	10	10	50%
HINTON	s	0.52	3.98	0.07	13	16	38%	135	235 190	122 96	6 17	6 17	58% 38%
JANVIER	s	0.20	2.20		ĩ	2	9%	95	244	37	2	1	14%
JEAN COTE	s	3.72	7.81	1.78	3	3	97%	231	302	176	3	3	81%
JOUSSARD	s	0.54	1.33	0.22	3	3	40%	97	114	82	3	3	15%
LAC LA BICHE	s	0.65	4.15	0.10	6	6	47%	141	184	108	7	7	42%
LOON LAKE	s	3.17	6.90	1.46	2	2	95%	244	341	174	2	2	85%
MANNING MARIE REINE	s s	0.75 3.00	3.31	0.17	5	6 1	54% 95%	242 308	348	168	7	7	84%
MCLENNAN	s	2.07			6	6	89%	269			6	1 6	94% 89%
NAMPA	s	0.60	2.92	0.12	3	3	44%	270	374	195	3	3	89%
NEERLANDIA	s	1.00	1.31	0.75	2	2	65%	173	215	139	2	2	60%
PADDLE PRAIRIE	s	1.12	18.79	0.07	3	3	70%	215	320	145	3	3	77%
PEACE RIVER	s	0.22	1.09	0.04	18	22	10%	101	140	73	22	22	17%
PEERLESS LAKE FEORIA	s	1.90	7.48	0.48	3	3	87% 56%	93 437	98	22	3	3	13%
PLAMONDON	s	0.36	1.46	0.09	2	2	24%	437	213	154	1	2	99% 64%
RAINBOW LAKE	s	0.94	3.03	0.29		4	63%	99	119	83	4	4	16%
RYCROFT	s	1.60	4.58	0.56	6	6	82%	213	387	117	6	6	76%
SANDY LAKE	s	5.25	5.68	4.85	2	2	99%	112	140	89	2	2	23%
SLAVE LAKE SMITH	S	0.74	6.25	0.09	11	11	53%	85	100	72	11	11	9%
SPIRIT RIVER	s s	2.30	223.90 1.32	0.02	3 5	3 5	91% 16%	165 172	170 238	160 124	3 5	3	56% 59%
ST. ISIDORE	s	5.60		0.00	i	1	99%	315	~0	447	3	3	39%
SWAN HILLS	s	0.18	0.27	0.12	4	s	7%	67	82	54	5	5	3%
TANGENT	s	1.40			1	1	78%	164		- •	ĩ	ĩ	55%
VALLEYVIEW	s	0.57	10.91	0.03	10	10	42%	107	153	75	20	10	21%
WABASCA	s	0.73	3.91	0.14	2	2	52%	109	258	46	2	2	22%
WANDERING RIVER	S	0.41	0.94	0.18	2	3	28%	89	116	68	3	3	11%
18J AN 783 A 5.4	s	0.89 0.27	5.68 1.25	0.14 0.06	4	4	61% 15%	226 152	330 219	155	4	4	80%
WANHAM WESTLOCK								1.32	219	106	6	6	49%
WESTLOCK	s s												
	s s	0.37	2.43	0.06	9	10 2	23% 80%	179	254	126	11	11	63%
WESTLOCK WHITECOURT	s	0.37	2.43	0.06	9	10	23%						

.

#### Treated Water Survey

			La	ngelier Sat	uration Inc	lex				Chlorofo	rm (ug/L)		
LOCATION	TYPE		UPPER	LOWER	SAMPLES	# SAMPLES	Percentile		UPPER	LOWER	SAMPLES	# SAMPLES	Percentile
		MEAN	95%	95%	>MLD	TAKEN	WITHEN	MEAN	95%	95%	MLD	TAKEN	WITHIN
Total Ground Water		0.14	0.76	-0.47	39	39	GROUP	3.5	12.6	1.0	26	41	GROUP
BERWYN	a	0.40	0.66	0.13	2	2	79%	2.2	120	1.0	0	2	
BLUE RIDGE	Q.	0.04			1	ì	37%	6.0			ł	ī	80%
CLAIRMONT	a	-0.33			1	I	<b>6%</b>	5.7	14.8	2.2	2	2	77%
COLINTON	٥	0.10	0.27	-0.06	2	2	45%	7.7	48.4	1.2	2	2	89%
CYNTHEA	a a	-0.29 -0.06	0.25	-0.37	1 2	1	8% 26%	9.0			0	1 2	93%
EDSON	a	0.18	0.23	-0.41	6	6	55%	1.6	3.5	0.7	3	6	12%
ENTWISTLE	a	0.47	0.76	0.18	2	2	85%	7.7	15.7	3.8	2	2	89%
EVANSBURG	a	0.17	0.32	0.02	2	2	54%	2.4	4.3	1.4	2	3	30%
FAWCETT	a	0.49			1	L	86%				0	1	
FORT ASSINIBOINE FOX CREEK	g	0.27	0.78 0.30	-0.25 -0.17	2	2	65% 40%	2.0 3.0			1	2	20% 41%
GRIMSHAW	G	-0.47	0.17	-1.10	2	2	3%	2.0			2	2	20%
JARVIE	g	0.66			1	1	95%				ō	ī	
LA CRETE	a	-0.25	-0.08	-0.42	2	2	10%	2.4	4.3	1.4	2	2	30%
MAYERTHORPE	G	0.34	0.69	-0.01	2	2	73%	2.8	7,4	1.1	2	2	38%
PEROCH	a	0.16			1	1	51%	4.0			1	1	58%
SANGLIDO TROUT LAKE	a	0.06	0.35	-0.24	2	2	39% 90%				0	2	
WILDWOOD	0 Q	0.54			1	i	29%				1	1	
ZAMA	G	-0.01	0.09	-011	2	2	30%	5.5	29.1	1.0	2	2	76%
Total Sorface Water		12344.99	34670.32	4395.66	377	377		61.9	296.4	12.9	383	415	
ANZAC	s	-0.42	0.41	-1.24	2	2	62%	24.0			1	2	12%
ATHABASCA	S	-0.56	0.14	-1.27	30	30	51%	20.7	65.1	6.6	29	30	8%
BARRHEAD	s	0.28	0.63	-0.07	9	9 3	95%	71.6	369.5	13.9	9 3	9	57% 25%
BEAVERLODGE BLUESKY	s s	-0.42	0.04 0.57	-0.89 -1.46	3 3	3	62% 60%	36.0 181.5	318.3 1301.4	4.1 25.3	3	3 3	91%
BOYLE	s	0.21	1.70	+1.29	2	2	93%	69.0			1	2	55%
BRULE	s	0.43			ĩ	1	97%	9.0			ī	ī	196
CALLING LAKE	s	-0.60	-0.38	-0.82	2	2	48%	37.4	212.4	6.6	2	2	26%
CANYON CREEK	s	+1.02			1	1	20%	\$8.0		20.0	1	1	67%
CLEARDALE	s	-1.99	-0.52	-3.47 -0.89	2 3	2	0% 54%	43.8 111.6	95.6 159.8	20.0 77.9	2	2	33% 77%
DONNELLY	S S	-0.53 -0.05	-0.17 0.54	-0.65	2	2	84%	162.3	327.2	80.5	2	2	89%
EAGLESHAM	s	-1.05	-0.81	-1.29	3	3	19%	59.0	114.5	30.5	10	10	48%
FAIRVIEW	s	-1.01	-0.78	-1.25	4	4	20%	39.2	119.0	12.9	3	4	28%
FALHER	s	-0.60	0.36	-1.55	7	7	49%	99.3	404.9	24.4	6	8	72%
FAUST	s	-0.60	-0.44	-0.76	5	5	48%	106.0	156.3	71.8	4	5	75%
FORT CHIPEWYAN FORT MACKAY	s s	-1.93 -0.70	-1.14	-2.71	2	2	1% 41%	17.0			1	2	5%
FORT MCMURRAY	s	-0.32	0.48	-1.12	56	56	69%	11.0	98.4	1.2	53	58	2%
FORT VERMILION	s	-0.58	-0.44	-0.72	3	3	50%	48.9	67.7	35.3	3	3	39%
GIFT LAKE	s	-0.72	0.12	+1.57	5	5	39%	\$3.3	191.4	36.3	5	5	64%
GROUXVILLE	s	-0.47	-0.10	-0.84	3	3	58%	108.9	293.2	40.4	10	10	76%
GRANDE CACHE	\$	0.01	0.39	-0.38	9	9	87%	59.8	176.6	20.2	10	10	48%
GRANDE PRAIRE	S	-0.32	0.38	-1.02 -1.61	25 5	25 5	69% 32%	23.2 160.2	67.7 266.2	8.0 96.4	23 5	25 5	11%
GROUARD GUY	s s	-0.63	-0.46	-1.40	2	2	25%	76.8	92.0	64.2	2	2	61%
HIGH LEVEL	s	-0.20	0.65	-1.05	4	4	77%	52.4	552.5	5.0	3	4	42%
HIGH PRAIRIE	s	-1.06	0.30	-2.42	10	10	18%	34.8	213.5	5.7	9	10	24%
HINES CREEK	s	-1.15	-0.27	-2.04	6	6	14%	76.7	192.5	30.6	4	5	61%
HINTON	s	-0.67	0.22	-1.56	17	17	43%	5.5	27.3	1.1	17	17	0%
JANVIER JEAN COTE	s	-1.64 -0.57	1.07	-4.35 -1.19	2 3	2 3	2% 50%	58.0 46.9	148.0	14.9	1 2	2	47%
JOUSSARD	s	-0.61	-0.55	-0.66	ž	3	48%	108.5	277.3	42.5	3	3	76%
LAC LA BICHE	s	0.17	0.57	-0.23	7	7	92%	46.4	132.5	16.2	6	7	36%
LOON LAKE	s	-0.31	0.48	-1.10	2	2	70%	209.2	354.3	123.5	2	2	94%
MANNING	s	-0.54	0.00	-1.08	7	7	53%	60.2	213.7	16.9	6	7	49%
MARIE REINE MCLENNAN	s s	0.46 -0.62			1	6	98% 47%	92.0 58.2	1199.6	2.8	1	1	69% 47%
NAMPA	5	-0.02	0.10	-0.25	3	3	83%	237.7	359.0	157.4	3	3	95%
NEERLANDIA	s	-0.25	1.14	-1.64	2	2	73%	27.8	559.4	1.4	6	6	16%
PADOLE PRAIRIE	s	-0.59	-0.29	-0.90	3	3	49%	109.3	213.2	56.0	3	3	76%
PEACE RIVER	s	-1.15	-0.22	-2.08	22	22	14%	14.8	33.7	6.5	21	23	4%
PEERLESS LAKE	s	-0.37	-0.05	-0.70	3	3	65%	54.4	109.6	27.0	3	3	44%
PEORIA	s s	-0.11	0.31	-0.53	2	2	95% 81%	119.0 38.0			1	1	79% 27%
PLAMONDON RAINBOW LAKE	s	-1.07	-0.36	-0.55	4	4	18%	71.6	108.9	47.0	3	á l	57%
RYCROFT	s	-0.49	-0.05	-0.93	6	6	57%	84.9	128.5	56.1	6	6	65%
SANDY LAKE	s	-0.33	0.61	-1.28	2	2	68%	329.7	733.9	148.1	2	2	98%
SLAVE LAKE	s	-0.97	-0.35	-1.59	11	н	23%	45.9	145.2	14.5	11	11	35%
SMITH	s	-0.18	0.43	-0.78	3	3	78%	69.0	97.0	49.1	2	2	55%
SPIRIT RIVER	s s	-0.44	-0.21	-0.66	5	5	60% 30%	50.6 109.0	143.7	17.8	1	11	40% 76%
ST_ISIDORE SWAN HILLS	s	-0.85	0.09	-0.68	5	5	70%	69.5	116.0	41.6	5	5	56%
TANGENT	s	0.23			í	i	94%	69.0		•	í	1	55%
VALLEYVEW	s	-1.42	-0.22	-2.63	10	10	5%	37,8	164.5	8.7	10	10	27%
WABASCA	s	-1.19	-0.57	-1.81	2	2	12%	198.0			1	2	93%
WANDERING RIVER	s	-1.19	0.56	-2.95	3	3	12%	90.3	106.9	76.3	2	3	68%
WANHAM	\$	-1.34	-1.08	-1.60	4	4	7%	75.4	246.3	23.1	10	10	60%
WESTLOCK	s s	-0.20	0.89 0.65	-1.28 -1.03	6 11	6 11	77%	63.6 40.5	146.4 76.7	27.6 21.4	5	6 11	51% 30%
WHITECOURT	s	-0.19	0.65	-2.03	2	2	24%	125.6	278.0	56.7	10	10	81%
TAX PERSON AND A DESCRIPTION	-	-0.97	-0.47	-1.47	4	á	23%	64.7	91.3	45.8	3	4	52%
WORSLEY	S												3476

## Table A-2

200

			Tot	al Dissolve	d Solids (m	g/L)				pH (pł	H units)		
STATION	TYPE	MEAN	UPPER 93% LIMIT	LOWER 95% LINIT	SAMPLES >MLD	# SAMPLES TAKEN	PERCENTILE WITHIN GROUP	MEAN	UPPER 95% LIMIT	LOWER 95% LIMIT	SAMPLES >MLD	I SAMPLES TAKEN	PERCENTILE WITHIN GROUP
AL-PAC CONSTRUCTION CA	Raw Surface Water	198			1	1	41%	8.3			1	1	22%
AL-PAC CONSTRUCTION CA	Treated Surface Water	212			1	1	29%	8.2			1	1	85%
ALBERTA NEWSPRINT MILL	Raw Well Water Treated Satisce Water	333	474	234	2	2	18%	7.3	7.6	7.0	2	2	4%
AMISK LAKE TRAILER PA ANZAC WATER RAW SURFAC	Treated Sarface Water Raw Sarface Water	540	174		1	1	84%	81			1	1	79%
ANZAC WATER RAW WELL	Raw Well Water	86 663	174 1102	43 399	2 31	2 31	5% 58%	7.4 8.0	#.4 9.1	6.4	2	2	2%
ANZAC WATER TREATED	Treated Well Water	518	1780	151	23	23	48%	7.9	9.0	6.9 6.9	31 23	31 23	41%
ATHABASCA H.U.WATER RA	H.U. Row Surface Water	178	321	99	28	28	32%	8.1	5.0	7.7	28	23	72%
ATHABASCA WATER RAW S	Raw Serface Water	164	281	93	60	60	29%	8.1	2.6	7.6	60	60	70%
ATHABASCA WATER TREAT	Treated Surface Water	232	350	154	92	92	33%	7,7	8.6	7.0	92	92	38%
ATHABASCA H.U.WATER TR	H. U. Treated Surface Water	242	386	152	28	28	38%	7.8	8.4	7.2	28	2.8	36%
ATEKAMEG WATER RAW SU	Raw Surface Water	527	2034	136	4	4	93%	7.8	8.5	7.2	4	4	34%
ATTKANEG WATER RAW WE	Row Well Water	801	1084	592	٩	5	68%	8.1	8.8	7.4	5	5	51%
ATIKAMEG WATER TREATE	Treated Well Water	632	2119	188	9	9	60%	7.9	9.1	6.9	9	9	38%
ATTKAMEG WATER TREATE	Treated Surface Water	351	1441	85	10	10	61%	8.1	8.5	7.7	10	10	79%
BARRHEAD HU.WATER RAW	H.U. Raw Staface Water	251	320	197	5	5	54%	8.4	8.5	8.2	5	5	94%
BARRHEAD WATER RAW SU	Raw Surface Water	236	340	163	23	23	53%	8.3	8.8	7.9	23	21	91%
BARRHEAD WATER TREATE	Treated Surface Water H. U. Treated Surface Water	387 376	497 472	301 298	35 4	35	67% 73%	8.2 8.1	8.7	7.8	35	35	87%
BEAR CANYON WATER RAW	Rew Serface Water	378	647	169	9	,	74%	8.0	83 86	8.0 7.5	4	4	86% 63%
BEAR CANYON WATER TRE	Treated Surface Water	335	739	152	24	24	58%	7.7	8.3	7.3	24	24	41%
BEAR CANYON HU.WATER	H. U. Treated Surface Water	191	344	106	2	2	21%	8.4	9.9	7.1	2	2	95%
BEAVERLODGE WATER RAW	Row Surface Water	206	467	91	35	35	44%	8.1	8.8	7.4	35	35	69%
BEAVERLODGE WATER RAW	Raw Well Water	1903	2190	1654	2	2	97%	8.1	8.6	8.0	2	2	69%
BEAVERLODGE WATER TRE	Treated Well Water	339	433	265	18	38	24%	7.7	8.3	7.2	18	18	25%
BEAVERLODGE WATER TRE	Treated Surface Water	B45	2903	246	4	4	96%	8.2	8.6	7.9	4	4	87%
BERWYN WATER RAW WELL	Raw Well Water	395	428	366	8		26%	7.6	8.1	7.1	8	8	14%
BERWYN HLU WATER RAW W	H. U. Raw Well Water	401			1	1	16%	7.5			1	1	16%
BERWYN WATER TREATED	Treated Well Water	377	443	321	20	20	30%	7.7	8.5	6.9	2L	21	21%
BEZANSON WATER RAW SU	Raw Surface Water	267	283	253	2	2	61%	7.7	<b>B</b> .0	7.4	2	2	21%
BEZANSON WATER RAW WE	Raw Well Water	939	965	913	4	4	76%	8.5	B.6	8.4	4	4	81%
BEZANSON WATER TREATE	Treated Well Water	733	1798	299	7	?	69%	8.4	9.0	7.9	7	7	81%
BEZANSON WATER TREATE	Treated Surface Water	911	971	854	6	6	97%	8.6	E.E.	8.4		6	99%
BIG PRAIRIE (PEAVINE)H	H.U. Raw Serface Water	245			1	1	53%	8.2			1	1	\$2%
BIG PRAIRIE (FEAVINE)	Rew Surface Water	311	516	188	10	10	71%	8.0	8.6	7.5	10	10	66%
BIG PRAIRIE (PEAVINE)	Treated Surface Water	399	567	280	15	15	69%	7.9	8.4	7.5	15	15	64%
BIG PRAIRIE (PEAVINE)H	H. U. Treated Surface Water	316			1	1	60%	6.9			1	1	2%
BLUE RIDGE WATER RAW	Raw Well Water	521	1087	2.50	10	01	41%	8.7	9.2	£.3	10	10	92%
BLUE HERON ESTATES WA BLUE RIDGE HU.WATER R	Raw Well Water H. U. Raw Well Water	518	676	634	1	1 2	41%	7.6 8.8	9.0		1	1	15%
BLUE RIDGE HU. WATER R	FL U. Raw Weil Water Treated Well Water	654	676 704	620	31	2	63%	8.5		8.6	2	2	94%
BLUE RECE HU.WATER T	H. U. Treated Well Water	680	72.5	638	3	3	65%	8.7	9.0 8.7	8.5 8.6	32 3	32 3	93% 89%
BLUEBERRY MOUNTAIN WA	Raw Well Water	203	122	434	1	1	456	7.5		0.0	1	1	10%
BLUESKY WATER RAW SUR	Raw Surface Water	189	465	77	14	14	38%	7.6	8.6	6.7	14	14	13%
BLUESKY WATER TREATED	Treated Sarface Water	168	473	60	35	35	18%	7.7	8.6	6.9	36	36	35%
BLUESKY H.U.WATER TREA	H. U. Treated Surface Water	117			1	1	3%	7.8			1	1	19%
BONANZA WATER RAW SUR	Raw Surface Water	179	204	157	2	2	33%	7.3	7.6	7.0	2	2	1%
BOYLE WATER RAW SURFAC	Raw Surface Water	191	239	153	4	4	39%	8.5	9.2	7.9	4	4	98%
BOYLE WATER TREATED	Treated Surface Water	199	284	140	13	13	26%	8.3	9.0	7.7	83	13	93%
BROWNVALE WATER RAW W	Raw Well Water	779	885	683			66%	<b>E.</b> 0	8.3	7.6			47%
BROWNVALE HU.WATER RA	H. U. Raw Well Water	763			1	1	62%	7.9			1	1	44%
BROWNVALE WATER TREAT	Treated Well Water	809	1073	611	19	19	76%	B.D	8.5	7.5	19	19	46%
BRULE H.U.WATER RAW SU	H.U. Raw Surface Water	234			L.	1	50%	8.1			1	1	75%
BRULE WATER RAW WELL	Raw Well Water	160			k.	1	2%	8.4			1	1	76%
BRULE WATER TREATED	Treated Well Water	209	269	162	12	12	7%	R.3	9.0	7.6	12	12	70%
BRULE WATER TREATED BUFFALO HEAD PRAIRIE W	Treated Surface Water Raw Surface Water	236 254	258 320	216 201	2	2	36%	8.0			2	2	69%
BUFFALO HEAD PRAIRE	Tranted Surface Water	319	526	183	12	12	55%	7.3 7.5	7.8 8.5	6.8	3	3	1%
BUFFALO HEAD PRAIRIE W	H. U. Treated Surface Water	370	390	351	2	2	72%	7.3	8.0	6.6 6.6	12 2	12	16%
CADOMIN WATER RAW WEL	Raw Well Water	276	351	217	7		11%	7.9	83	7.6	7	7	40%
CADOTTE LAKE WATER RAW	Raw Surface Water	244	400	149	3	3	57%	8.0	8.6	7.4	3	j	57%
CADOTTE LAKE WATER RA	Raw Well Water	365	1272	251	17	17	46%	8.2	8.6	7.7	17	17	60%
CADOTTE LAKE WATER TR	Treated Well Water	467	1021	214	13	13	42%	7.9	8.4	7.5	13	13	42%
CADOTTE LAKE WATER TR	Trented Surface Water	760	794	727	2	2	94%	8.2	8.4	8.1	2	2	89%
CALLING LAKE WATER RAW	Row Surface Water	107	121	95	3	3	10%	8.0	8.3	7.7	3	3	60%
CALLING LAKE WATER RA	Raw Well Water	665			t	1	57%	7.8			1	1	28%
CALLING LAKE WATER TR	Treated Well Water	105	120	92	10	10	1%	7.9	8.3	7.5	10	10	40%
CALLING LAKE WATER TR	Treated Surface Water	116	137	98	5	3	6%	8.1	8.9	7,4	5	5	78%
CANYON CREEK WATER RA	Raw Surface Water	127	201	80	9	9	16%	8.2	9.5	7.2	9	9	86%
CANYON CREEK WATER TR	Treated Serface Water	152	280	82	19	19	14%	7.9	8.4	7.4	19	19	59%
CARSON-PEGASUS PROV.PK	Raw Sariace Water Treated Surface Water	163	10*	1.70	1	1	29%	8.2			1	1	79%
CLARSON-PEGASUS PROV.PK	Treated Surface Water Raw Well Water	187 893	195 1775	179	2	2	23%	8.4	8.4	8.3	2	2	94%
1					28 6	28		8.8	9.1	24	28	28	93%
CLAIRMONT HU.WATER RA	H. U. Raw Well Water Treated Well Water	1009 923	2153	473 766	6 10	6 10	81%	8.7	9.1	8.3	<b>6</b> 10	6	90%
CLEARDALE WATER FREMS	Raw Surface Water	923	475	766	10	10	66%	8.7	9.0	8.4	10	10	92%
CLEARDALE WATER TREAT	Treated Surface Water	305	475	225	6	6	52%	8L1 7.6	8.9 8.6	7.4	5	5	74%
CLEARDALE HU.WATER TR	H. U. Treated Surface Water	412	873	194	2	2	79%	7.4	8.6	e 3 6.6	2	6	8% 10%
COLINTON WATER RAW WE	Raw Well Water	879	1831	422	16	16	73%	7.9	9.1	6.9	16	2	19% 37%
COLINTON H.U. WATER RAW	H. U. Raw Well Water	897	932	863	4	4	74%	7.9	8.0	7.8	4	4	43%
COLINTON WATER TREATE	Treated Well Water	885	1137	689	37	37	78%	8.2	8.9	7.5	37	37	60%
COLINTON H.U.WATER TRE	H. U. Trusted Well Water	914	962	868	4	4	80%	8.0	8.5	7.5	4	4	41%
CONICLIN WATER RAW WEL	Raw Well Water	349	447	273		8	20%	7.8	8.2	7.4		*	27%
CONICLIN WATER TREATED	Treated Well Water	268	772	93	5	5	14%	7.8	84	7.3	5	5	32%
CROOKED CREEK WATER R	Raw Well Water	863	900	827	4	4	72%	8.1	8.4	7.8	4	4	52%
CROOKED CREEK H.U. WATE	H. U. Raw Well Water	887	937	840	3	3	73%	8.1	8.5	7.8	3	3	62%
CROOKED CREEK WATER T	Treated Well Water	856	912	803	15	15	77%	8.2	8.6	7.9	15	15	63%
CROSS LAKE PROVINCIAL	Raw Well Water	629	1219	324	7	7	53%	8.5	9.2	7.8	7	7	80%
CROSS LAKE PROV PK H.U	H. U. Raw Well Water	1006			1	1	81%	8.6			1	1	89%
		678			1	1	58%	8.7			1	1	93%
CYNTHIA WATER RAW WELL	Raw Well Water						64%						
CYNTHIA WATER RAW WELL CYNTHIA WATER TREATED	Treated Well Water	671	689	654	1			8.7	8.9	8.6	8		93%
CYNTHIA WATER RAW WELL CYNTHIA WATER TREATED DAISHOWA CAMP WATER RA	Treated Well Water Raw Sarface Water	671 123			1	1	15%	7.5			1	1	7%
CYNTHIA WATER RAW WELL CYNTHIA WATER TREATED DAISHOWA CAMP WATER RA DAISHOWA CAMP WATER TR	Trented Well Water Raw Sarface Water Trented Surface Water	671 123 136	689 281	634 66	1 2	1 2	15% 10%	7.5 7.2	8.9 9.0	8.6 5.7	1 2	1 2	7% 2%
CYNTHIA WATER RAW WELL CYNTHIA WATER TREATED DAISHOWA CAMP WATER RA	Treated Well Water Raw Sarface Water	671 123			1	1	15%	7.5			1	1	7%

				al Dissolve			and the				H units)	Sec. Sec.	
STATION	TYPE	MEAN	UPPER 95%	LOWER 95%	SAMPLES >MLD	# SAMPLES TAKEN	WITHIN	MEAN	UPPER 95%	LOWER 95%	SAMPLES		PERCENTIL
		MEAN	LIMIT	LIMIT		TAKEN	GROUP	MEAN	LIMIT	LIMIT	>MLD	TAKEN	GROUP
DEADWOOD WATER TREATED	Treated Well Water	778	994	609	6	6	72%	8.0	8.4	7.5	6	6	43%
DEADWOOD WATER TREATE	Treated Surface Water	809	1010	649	10	10	95%	8.2	8.6	7.8	10	10	83%
DEBOLT WATER RAW WELL	Raw Well Water	629	718	550	8	8	53%	8.7	9.2	8.2	8	8	90%
DEBOLT H.U.WATER RAW W DEBOLT WATER TREATED	H. U. Raw Well Water Treated Well Water	635	696 1111	579	4 28	4 28	48%	8.6 8.5	9.1 9.0	8.2	4	4	88%
DEBOLT HU.WATER TREAT	H. U. Treated Well Water	663	668	659	2	2	64%	8.5	8.9	8.1 8.2	28	28 2	86%
DEER HILL WATER RAW W	Raw Well Water	688	781	605	14	14	59%	7.6	8.1	7.2	14	14	16%
DEER HILL H.U. WATER RA	H. U. Raw Well Water	672			1	1	52%	7.5			1	1	16%
DEER HILL WATER TREAT	Treated Well Water	686	756	623	3	3	63%	7.6	7.8	7.4	4	4	14%
DEMONTT WATER RAW WELL	Raw Well Water	716		~	1	1	61%	7.5			1	1	10%
DESMARAIS WATER RAW S DESMARAIS WATER TREAT	Raw Surface Water Treated Surface Water	128 225	243 502	68 101	20 25	20 25	17%	7.9	9.5	6.6	20 25	20 25	43%
DIXONVILLE WATER RAW	Raw Well Water	391	468	327	16	16	25%	7.8	8.2	7.4	16	16	15%
DIXONVILLE WATER TREA	Treated Well Water	351	438	282	25	25	26%	7.9	8.4	7.4	25	25	37%
DONNELLY WATER RAW SU	Raw Surface Water	469	703	313	13	13	89%	8.3	8.6	8.1	14	14	91%
DONNELLY WATER TREATE	Treated Surface Water	539	\$16	356	25	25	84%	8.1	9.1	7.3	26	26	79%
DR.MARY JACKSON SCHOOL DR.MARY JACKSON SCHOOL	Raw Well Water Treated Well Water	1432 1426	1477	1388	2 2	2 2	92%	8.0	8.1	7.9 7.6	2	2	47%
EAGLESHAM WATER RAW S	Raw Surface Water	309	665	144	28	28	70%	2.0	8.9	7.2	2	2 29	45%
EAGLESHAM WATER TREAT	Treated Surface Water	348	619	195	35	35	61%	7.2	7.9	6.5	36	36	2%
EAST PRAIRIE WATER RAW	Rew Surface Water	811			1	1	99%	7.4			1	1	3%
EAST PRAIRIE WATER RAW	Raw Well Water	839	1015	694	18	18	70%	7.7	8.6	7.0	18	18	22%
EAST PRAIRIE WATER TRE	Trested Well Water	758	1842	312	9	9	71%	7.9	8.8	7.0	9	9	37%
EDSON HU.WATER RAW SU	H.U. Raw Surface Water	512			1	1	90%	7.9			1	1	42%
EDSON WATER RAW SURFAC	Raw Surface Water Raw Well Water	234 495	657	372	1 112	1 113	53% 38%	7.9	9.0	7.5	1	1 114	49% 64%
EDSON HU.WATER RAW WE	H. U. Raw Well Water	494	785	311	14	14	29%	8.2	8.8	7.5	14	14	66%
EDSON WATER TREATED	Treated Well Water	490	719	334	29	29	45%	8.3	9.0	7.7	29	29	72%
EDSON WATER TREATED	Treated Surface Water	528	635	439	18	18	83%	8.4	9.0	7.9	18	18	95%
EDSON H.U. WATER TREATE	H. U. Treated Well Water	379	994	144	5	5	31%	8.2	9.5	7.1	5	5	64%
ELDOE'S MOBILE HOME P	Raw Well Water	780	795 -	765	2	2	66%	8.7			2	2	91%
ELDOE'S MOBILE HOME P	Treated Well Water	779	\$19	742	9	9	72%	8.7	9.0	8.5	9	9	93%
ELDOE'S MOBILE HOME PK ENTRANCE WATER RAW SU	H. U. Treated Well Water Raw Surface Water	778 349	357	341	1 2	1 2	73%	8.7	8.1	7.8	1 2	1 2	90%
ENTRANCE HU.WATER RAW	H. U. Raw Well Water	356	370	342	2	2	11%	7.9	8.0	7.8	2	2	54% 43%
ENTWISTLE WATER RAW W	Raw Well Water	444	526	375	4	4	32%	7.7	8.1	7.4	4	4	24%
ENTWISTLE WATER TREAT	Treated Well Water	409	606	276	19	19	34%	7.9	8.4	7.5	19	19	39%
ENTWISTLE H.U. WATER TR	H. U. Treated Well Water	462	471	452	2	2	42%	7.9	7.9	7.8	2	2	30%
EUREKA RIVER WATER RA	Raw Well Water	1010	2932	348	15	15	80%	7.6	8.2	7.1	15	15	15%
EUREKA RIVER WATER H.U	H. U. Raw Well Water	952	1065	851	2	2	77%	7.5	7.9	7.1	2	2	13%
EUREKA RIVER WATER TR EVANSBURG WATER RAW W	Treated Well Water Raw Well Water	1048	1171	939 467	5	5	85%	7.4	7.7	7.2 7.3	7	7	8% 33%
EVANSBURG WATER TREAT	Treated Well Water	520	673	403	13	13	48%	7.8	8.3	7.3	13	13	29%
EVERGREEN MOBILE HOME	Raw Well Water	352			1	1	45%	9.0		1.5	1	1	97%
FAIRVIEW HU.WATER RAW	H.U. Raw Surface Water	137	185	101	8	8	19%	8.0	8.7	7.4	8	8	57%
FAIRVIEW WATER RAW SU	Raw Surface Water	236	466	119	48	48	53%	7.8	8.6	7.1	48	48	33%
FAIRVIEW WATER RAW WE	Raw Well Water	383	1479	99	7	7	24%	7.9	8.8	7.0	7	7	34%
FAIRVIEW WATER TREATE	Treated Well Water Treated Surface Water	306 306	532 434	176	49 10	49	20%	7.3	7.8	6.7	49	49	4%
FAIRVIEW HU.WATER TRE	H. U. Treated Well Water	160	215	120	8	3	3%	7.4	8.4 7.7	6.5 7.2	10	10	9% 8%
FALHER H.U.WATER RAW S	H.U. Raw Surface Water	328	467	231	7	7	71%	8.1	8.5	7.6	7	7	63%
FALHER WATER RAW SURF	Raw Surface Water	322	541	192	34	34	73%	8.0	8.8	7.3	35	35	62%
FALHER WATER RAW WELL	Raw Well Water	230			1	1	7%	7.6			1	1	15%
FALHER WATER TREATED	Treated Well Water	368	600	226	30	30	28%	7.4	8.0	6.8	31	31	6%
FALHER WATER TREATED	Treated Surface Water	414	606	283	16	16	71%	7.6	8.2	7.0	17	17	24%
FALHER H.U.WATER TREAT	H. U. Treated Well Water	398	465	341	7	7	33%	7.2	7.6	6.8	7	7	2%
FAUST WATER RAW SURFA	Raw Surface Water Treated Surface Water	110	131	93 96	14	14	11%	7.8	8.6	7.2	14	14	39%
FAWCETT WATER RAW WEL	Raw Well Water	590	657	529	9	9	49%	7.8	8.6	7.0	17	17	42%
FAWCETT HU.WATER RAW	H. U. Raw Well Water	619	627	610	5	5	46%	\$.3	8.5	8.2	5	5	73%
FAWCETT WATER TREATED	Treated Well Water	586	649	529	16	16	36%	8.3	8.7	7.9	16	16	70%
FAWCETT H.U.WATER TREA	H. U. Treated Well Water	627	636	618	5	5	61%	8.4	8.7	8.1	5	5	73%
FLATBUSH WATER RAW WE	Raw Well Water	662	953	460	4	4	56%	8.3	9.4	7.4	4	4	72%
FLATBUSH WATER TREATED	Treated Well Water H. U. Treated Well Water	757 753	777	738	2	2	71%	8.7	9.1	8.3	2	2	92%
FOOTNER LAKE WATER RA	Raw Surface Water	402	669	241	12	12	84%	8.6 7.9	8.7	7.1	1 12	1 12	88%
FOOTNER LAKE WATER TR	Treated Surface Water	534	798	358	20	20	83%	7.8	8.5	7.1	20	20	43%
FORT ASSINIBOINE WATE	Raw Well Water	336	471	240	4	4	18%	8.0	8.9	7.2	4	4	43%
FORT ASSINIBOINE H.U.W	H. U. Raw Well Water	503	576	439	2	2	30%	7.9	8.6	7.2	2	2	42%
FORT ASSINTBOINE WATE	Treated Well Water	352	475	261	13	13	26%	7.8	8.5	7.3	13	13	33%
FORT CHIPEWYAN WATER FORT CHIPEWYAN WATER	Raw Surface Water Treated Surface Water	64	133 279	31 23	8 28	8 28	2%	7.4	8.5	6.4	8		3%
FORT MACKAY WATER RAW	Raw Surface Water	135	173	105	3	28	2%	7.3	8.3	6.5	28	28	6% 28%
FORT MACKAY WATER TRE	Treated Surface Water	203	337	122	18	18	27%	7.7	9.0	6.6	18	18	37%
PORT MCMURRAY RAW SUR	Raw Surface Water	171	334	87	62	62	32%	8.1	8.6	7.7	62	62	77%
FORT MCMURRAY AIRPORT	Raw Well Water	281			1	1	12%	8.2			1	1	62%
FORT MCMURRAY TREATED	Treated Well Water	223	317	157	174	174	9%	8.0	8.7	7.3	174	174	46%
FORT MCMURRAY TREATED	Trented Surface Water	213	282	161	5	5	30%	7.9	8.5	7.3	5	5	53%
FORT VERMILION WATER	Raw Surface Water	126	159	99	27	27	16%	7.8	9.8	6.2	27	27	32%
FORT VERMILION WATER	Treated Surface Water H. U. Treated Surface Water	136 124	181	102	36	36	10%	7.5	9.3	6.0	36	36	14%
OX CREEK WATER RAW W	Raw Well Water	315	1250	79	14	14	15%	7.8	8.2	7.5	4	4	64%
OX LAKE WATER RAW WE	Raw Well Water	391	587	260	4	4	25%	8.1	83	7.9	4	4	40%
OX CREEK WATER TREAT	Treated Well Water	599	1135	316	25	25	57%	8.2	8.8	7.6	25	25	61%
OX LAKE WATER TREATE	Treated Well Water	346	558	214	2	2	25%	8.1	8.7	7.4	2	2	52%
OX CREEK H.U.WATER TR	H. U. Treated Well Water	466			1	1	43%	7.7			1	1	17%
ARDEN RIVER COMMUNIT	Raw Well Water	382			1	1	24%	8.3	1.0		1	1	69%
IFT LAKE HU.WATER RA	HLU. Raw Surface Water	162	179	146	2	2	27%	8.0	8.3	7.7	2	2	57%
IFT LAKE WATER RAWS	Raw Surface Water Treated Surface Water	156	180	135	13 29	13	27%	7.9	8.6	7.3	13	13	47%
EFT LAKE WATER TREAT	H. U. Treated Surface Water	245	214	124	29	29 1	22%	7.9	8.5	7.3	29	29	54%
SIROUXVILLE WATER RAW	Raw Surface Water	390	536	283	23	23	\$3%	8.2	8.8	7.6	24	1 24	6% 82%
BROUXVILLE WATER TRE	Treated Surface Water	428	609	300	38	38	73%	7.7	8.5	6.9	39	39	32%
RANDE CACHE WATER RA	Raw Surface Water	185	225	153	15	15	37%	8.2	8.8	7.7	15	15	84%
	Raw Surface Water	173	269	111	40	40	32%	8.1	8.7				

1.0

			Τα	tal Dissolve	d Solids (m	e/L)				pH (pl	H units)		
STATION	TYPE		UPPER	LOWER	SAMPLES	# SAMPLES	PERCENTILE		UPPER	LOWER	SAMPLES		PERCENTILE
		MEAN	93%	95%	>MLD	TAKEN	WITHIN	MEAN	95%	95%	>MLD	TAKEN	WITHIN
GRANDE CACHE WATER TR	Treased Surface Water	183	221	152	25	25	GROUP 22%	8.2	LIMIT 8.8	1.6	25	25	GROUP 84%
GRANDE PRAIRIE WATER	<b>Treated Surface Water</b>	184	300	112	134	134	22%	7.9	8.7	7.2	136	136	18%
GRANDE PRAIRIE H.U.WAT GRASSLAND WATER H.U.RA	H. U. Treated Surface Water H.U. Raw Surface Water	233	922 3828	59 227	6	6	34%	7.9 8.0	8.9 8.5	7.0 7.5	6	6	66% 49%
GRASSLAND WATER RAWS	Raw Sarface Water	341	1724	67	17	17	76%	7.6	8.6	6.7	17	17	14%
GRASSLAND WATER RAW W	Raw Well Water	1507	2175	1044	7	?	93%	8.0	8.9	7.2	7	7	46%
GRASSLAND H.U.WATER RA GRASSLAND WATER TREAT	H. U. Raw Well Water Treated Well Water	1696 561	1832 2500	1570 126	3 29	1 29	97% 53%	7.8 7.8	8.0 8.5	7.6 7.2	3 29	3 29	34% 33%
GRASSLAND WATER TREAT	<b>Treated Serface Water</b>	193	311	120	10	10	24%	6.9	9.4	5.0	10	10	0%
GRASSLAND WATER H.U. T	H. U. Trusted Well Water Raw Serface Water	1118	5349	234 56	*	8	88% 2%	7.9 7.6	8.7 8.0	7.2 7.2	*	\$ 6	37%
GREGOIRE LAKE PROVINC	Treated Surface Water	120	794	12	11	11	7%	7.6	8.4	7.0	n	11	28%
GRIFFIN CREEK WATER R	Rano Well Water H. U. Rano Well Water	394 408	499	311	11	11	25% 17%	7.8 7.8	8.3	7.4	11	11	29%
GRIFFIN CREEK H.U.WATE GRIFFIN CREEK WATER T	Treated Well Water	406	416	397	- i	4	34%	7.8	8.5	7.2	1	5	38% 30%
GREMISHAW WATER	Raw Surface Water	238	300	189	2	2	54%	8.3	8.4	7.8	2	2	73%
GRIMSHAW WATER RAW WE GRIMSHAW WATER TREATE	Raw Well Water Treated Well Water	398	481 483	330 364	9 19	9 19	26%	7.5 7.3	8.0 7.9	7.0 6.8	9 20	9 20	11%
GRIMSHAW WATER TREATE	Trented Surface Water	347	354	341	2	2	61%	7.5	1.0	7.1	2	2	20%
GROUARD WATER RAW SUR	Raw Surface Water	268	454	159	15	15	62%	8.0	8.7	7.3	15	15	56%
GROUARD WATER TREATED GROVEDALE FLU.WATER RA	Treated Surface Water H. U. Raw Well Water	285	130	153	34	34	48%	7.8 8.5	8.7	7.0	34	34 1	47%
GROVEDALE WATER TREAT	Trented Well Water	1200			ī	1	29%	7.6			1	1	16%
GUY WATER RAW SURFACE	Raw Surface Water	224	582	86	14	14	50%	7.7	8.7	6.8	14	14	22%
GUY WATER TREATED	Treated Surface Water H. U. Treated Surface Water	258 336	765	\$7	36 1	36 1	41%	7 <u>.</u> 5 7.4	8.0	7.0	36	36	15%
HAWK HILLS WATER RAW	Raw Surface Water	386	1127	133	3	3	82%	8.1	8.5	7.6	3	3	68%
HAWK HELLS WATER TREA	Treated Surface Water	637	1734	234	22	22	90%	7.9	8.5	7.3	22	22	56%
HAWK HILLS H.U.WATER T HIGH PRAIRIE WATER RA	H. U. Treated Surface Water Raw Surface Water	386 213	399 320	374 142	2 13	2	73%	8.0 8.1	8.4 8.5	7.5 7.6	2 13	2 13	73% 67%
HIGH PRAIRE AIRPORT	Raw Surface Water	161			1	1	31%	7.6			1	1	13%
HIGH LEVEL WATER RAW	Russ Surface Water Russ Well Water	365 595	490	271	23 1	25	79%	8.0 8.7	8.7	7,4	25	25	61%
HIGH PRAIRIE WATER RA	Rase Well Water Treated Well Water	283	516	155	30	1 30	16%	8.7	8.4	6.3	1 30	1 30	91% 4%
HIGH PRAIRIE AIRPORT	Treated Well Water	237	512	109	5	5	10%	7.5	8.3	6.8	5	5	10%
HIGH PRAIRIE WATER TR	Treated Surface Water Treated Surface Water	668 485	695	643 273	2 61	2 41	91% 79%	7.9 7.6	8.7 8.5	7.3	2 41	2 41	64% 26%
HIGH LEVEL HU. WATER T	H. U. Trested Surface Water	555	654	471	4	4	93%	7.6	e.3 7.7	7.4	4	4	36%
HILLIARDS BAY PROVINC	Raw Well Water	856	1074	682	7	7	71%	7.2	7.6	6.8	7	7	2%
HELLIARDS BAY PROV.PK. HELLIARDS BAY PROVINC	H. U. Raw Well Water Treated Well Water	962 #31	2518	274	1	1 17	78% 75%	6.8 7.5	8.5	6.6	1 17	1 17	1% 12%
HILLIARDS BAY PROVPE.	H. U. Trented Well Water	996			1	1	84%	7.2			1	ĩ	2%
HILLPARK MOBILE HOME	Rasw Well Water	527			1	1	42%	8.8			1	1	94%
HILLTOP ESTATES WATER	Raw Well Water Treated Well Water	962 989	987 1037	938 942	2	2	27%	7.8	9.1	7.2	2	2	28%
HINES CREEK WATER RAW	Raw Surface Water	245	365	165	16	16	56%	7.9	8.4	7.4	16	16	42%
HINES CREEK WATER TRE	Treated Surface Water	313	418	234	34	34	54%	7.2	8.9	5.8	35	35	3%
HINES CREEK WATER H.U. HINTON WATER RAW SURF	H. U. Treated Surface Water Raw Surface Water	281 191	350 439	225 80	3	3	30%	7.3 8.2	8.2 8.4	6.5 7.9	3	3	16% 81%
HINTON WATER TREATED	Treated Surface Water	153	233	100	58	58	14%	8.0	8.6	7.5	58	54	67%
HINTON H.U.WATER TREAT	H. U. Treated Surface Water	167			1	1	14%	7.5			1	I.	30%
HOTCHICSS WATER RAW S HOTCHICSS WATER TREAT	Raw Surface Water Treated Surface Water	327	351 791	305 146	3 20	3 20	74%	8.0 7.8	1.4 1.1	7.6	3 20	3 20	59% 52%
HYTHE WATER RAW WELL	Rase Well Water	768	1134	520	17	17	65%	8.8	9.2	83	17	17	93%
HYTHE HU WATER RAW WE	H. U. Rator Well Water Trusted Well Water	928 741	1080	508	1 3	1 3	76% 69%	2.7 9.0	9.3	8.6	1	1 3	92%
HYTHE WATER TREATED	Raw Surface Water	195	259	147	12	12	40%	9.0 7.9	9.1	6.9	3 12	3	97% 49%
JANVIER WATER TREATED	Treated Surface Water	394	286	131	21	21	25%	7.7	8.6	7.0	21	23	38%
JARVIE WATER RAW WELL JARVIE HU.WATER RAW W	Rano Well Water H. U. Rano Well Water	663 646	749 661	587 631	7	7	36% 49%	7.9 7.9	8.4 8.2	7.5 7.7	7	7	39%
JARVIE WATER TREATED	Treated Well Water	656	797	540	13	13	63%	8.2	8.5	7.9	13	13	63%
LARVIE H.U.WATER TREAT	H. U. Treated Weil Water	654	664	644	S	5	63%	8.1	8.2	8.0	5	5	50%
JASPER WATER RAW WELL JASPER WATER TREATED	Raw Well Water Treated Well Water	128 117	133 177	124 77	2 15	2 15	1%	7.8	8.9 8.5	6.9 7.5	2	2	31%
JASPER H.U.WATER TREAT	H. U. Treated Well Water	130	133	127	2	2	2%	8.0	8.4	7.6	2	2	40%
JEAN COTE WATER RAWS	Raw Serince Water	238	503	112	15	15	54%	7.6	8.3	7.0	15	15	14%
JEAN COTE WATER TREAT	Trented Surface Water H. U. Trented Surface Water	180 295	507	64	35	35	21%	7.4 7.4	8.2	6.7	35 1	35	10%
JOUSSARD WATER RAW SU	Raw Surface Water	114	144	90	10	10	12%	8.0	B.5	7.5	10	10	59%
JOUSSARD WATER TREATE	Treated Surface Water Raw Surface Water	120	156 772	93 440	22	22	7%	7.8	8.5	7.1	22	22	46%
KEG RIVER WATER RAW SU KEG RIVER WATER RAW W	Raw Well Water	1077	1838	631	5	5	82%	7.8 7.9	9.0 8.8	6.9 7.2	5 4	5	40%
KEG BIVER WATER TREAT	Treated Well Water	828	1343	510	24	24	73%	7.9	2.6	7.3	24	24	39%
KEGRIVER WATER TREAT	Treased Surface Water H. U. Treased Well Water	268 738	667	100	3	3 1	44%	8.2	9.0	75	3	3	20%
KEG RIVER H.U.WATER TR KINUSO WATER RAW SURF	Raw Sarface Water	100	187	53	29	29	8%	7.8 7.5	8.4	6.7	1 29	1 29	25%
KINUSO WATER TREATED	Treated Surface Water	177	342	92	39	39	20%	7.5	8.8	6.3	39	39	16%
KINUSO H.U.WATER TREAT	H. U. Treated Surface Water H. U. Treated Well Water	148 383	247	89	4	4	9% 11%	8.0 7.7	\$4	7.6	4	4	77% 22%
LA CRETE WATER H.U.RAW	H. U. Raw Well Water	421			i i	1	19%	7.8			1	1	33%
LA CRETE WATER RAW SU	Rane Surface Water	369	392	347	3	1	80%	7.6	8.0	7.3	3	3	14%
LA CRETE WATER RAW WE	Raw Well Water Treated Well Water	361 414	511 472	255 362	17 30	17 30	21%	7.8 7.9	2.4 2.3	7.2 7.3	17 30	17 30	2.9% 3.9%
LA CRETE WATER TREATE	Treased Surface Water	796			1	1	92%	8.9			1	1	100%
LA GLACE WATER BAW WE	Raw Well Water Treated Well Water	364 667	1136 1070	284 416	3 5	1 5	47%	2.5 2.6	5.5	7.7	3	1	84%
LAC LA BICHE ELU.WATER	HU. Raw Surface Water	667 214	10/0	419	5	5	41%	2.6 8.1	9.2	8.0	5	5	88% 70%
LAC LA BICHE H.U.WATER	H. U. Treated Well Water	186	188	185	2	2	5%	8.1	8.2	7.9	2	2	47%
LAC LA BICHE WATER RA	Raw Serface Water Raw Well Water	155 976	202	119	5	5	26%	8.3	9.1	7.7	5	5	92%
LAC LA BICHE WATER RA LAC LA BICHE WATER TR	Raw Well Water Treated Well Water	976	284	86	1 13	1	78% 3%	7.7	29	7.7	1 13	1	21% 71%
LAC LA BICHE WATER TR	Treated Surface Water	147	184	118	5	3	13%	<b>8.0</b>	8.4	7.6	5	5	69%
LAKEVIEW ESTATES WATE LESSER SLAVE LAKE PROV	Raw Well Water Raw Well Water	896 480	#16	283	1	1	74% 36%	7.7			1	1	21%
LESSER SLAVE LAKE PROV	Raw Well Water Treated Well Water	480 633	816 909	283 441	7 9	7	36%	7.7 7.5	8.6 7.9	6.8 7.2	7	7	18%
					-	-	1						10/4

					d Solids (mg						H units)		
STATION	TYPE		UPPER	LOWER	SAMPLES		PERCENTILE	10000	UPPER	LOWER	SAMPLES	# SAMPLES	
		MEAN	95% LIMIT	95% LIMIT	>MLD	TAKEN	GROUP	MEAN	95% LIMIT	95% LIMIT	>MLD	TAKEN	GROUP
LINARIA WATER RAW WEL	Raw Well Water				0	0					0	0	GROOT
	Raw Surface Water	542	1196	246	15	15	93%	8.0	8.7	7.4	15	15	61%
	Treated Surface Water H. U. Raw Well Water	739	2534	216	24	24	93%	8.1	8.6	7.6	24	24	77%
	H. U. Kaw Well Water Treated Well Water	453 396			1	1	23%	7.6			1	1	22%
	Raw Surface Water	401	632	254	19	19	84%	8.0	8.7	7.3	20	20	57%
	Treated Surface Water	440	669	289	32	32	74%	8.0	8.7	7.3	33	33	66%
	Raw Surface Water	244	465	128	17	17	55%	8.1	8.6	7.6	17	17	69%
	Treated Surface Water Treated Surface Water	332 492	742	149	29 12	29 12	58%	7.6	8.4	6.9 7.5	29 12	29 12	24%
	Raw Well Water	1272	1306	1239	6	6	88%	8.4	8.9	8.0	6	6	77%
	Treated Well Water	1183	1894	738	8		89%	8.3	8.9	7.8	8		75%
	H. U. Treated Well Water	427	507	359	2	2	37%	8.1	8.3	7.9	2	2	52%
	Raw Surface Water Treated Surface Water	414 341	594	195	1 15	1	85%	8.1			1	1	67%
	Raw Well Water	311	334	195	13	1	15%	8.1 7.8	8.6	7.6	15	15	79%
	H. U. Raw Well Water	310			i	1	7%	8.0			1	1	30%
ARLBORO WATER TREATED	Treated Well Water	327	340	315	2	2	23%	8.1	8.3	7.8	2	2	53%
	Raw Well Water	783	876	700	*	8	66%	8.2	8.8	7.7	8	8	64%
	Treated Well Water	818	952	704	29	29	75%	8.1	8.6	7.7	31	31	59%
	H. U. Treated Well Water Raw Well Water	843 488			1	1	77%	8.1 7.5			1	1	51%
	H. U. Raw Well Water	477			i	1	26%	7.4			1	1	10%
	Raw Surface Water	378	620	231	17	17	81%	8.1	9.0	7.4	17	17	76%
	Treated Surface Water	428	910	202	31	31	73%	7.5	8.1	7.0	31	31	19%
	Raw Surface Water	266			1	1	61%	8.0			1	1	60%
	Raw Well Water	330 354	353	308	2	2	17%	8.1 7.7	8.2	7.9	2	2	49%
	Rew Surface Water	112	141	90	3	3	12%	8.1	9.1	7.2	3	3	76%
ITSUE WATER TREATED	Treated Surface Water	234	130	100	8	8	6%	7.7	8.4	7.1	8		37%
	H.U. Raw Surface Water	469	605	364	2	2	87%	7.6	8.0	7.3	2	2	10%
	Raw Surface Water Treated Surface Water	291 348	843 723	100	3	3	67% 61%	8.1 7.8	\$.7 8.7	7.5	3	3	68%
	H. U. Treated Surface Water	401	478	336	2	2	77%	8.4	10.3	6.9	2	2	96%
	Raw Surface Water	306	481	195	17	17	70%	8.3	8.7	7.9	17	17	88%
	Trented Surface Water	319	508	201	37	37	55%	7.9	8.5	7.4	37	37	63%
	Raw Surface Water	251	443	143	4	4	57%	8.0	9.4	6.8	4	4	59%
	Raw Well Water Treated Well Water	435	1853	102	2	2	31%	7.8 7.8	8.7	7.0	2 13	2 13	28%
	Trented Surface Water	838	1250	562	11	11	96%	8.4	8.9	7.2	11	13	31%
	H. U. Treated Well Water	371	446	308	4	4	29%	8.2	8.7	7.7	4	4	60%
EW FISH CREEK WATER	Raw Well Water	655	702	611	3	3	56%	8.7	8.8	8.6	3	3	90%
	Treated Well Water	666	705	628	12	12	63%	8.7	9.2	8.3	12	12	93%
	H. U. Treated Well Water	681	719	645	3	3	66%	8.5	8.8	8.1	3	3	79%
	Raw Surface Water Raw Well Water	74			1	1	3%	7.5			1	1	7%
	Treated Well Water	958			1	1	82%	7.9			1	1	38%
	H.U. Raw Surface Water	341	415	281	2	2	73%	7.8	8.3	7.4	2	2	29%
	Raw Surface Water	278	539	143	24	24	64%	7.9	8.6	7.3	24	24	52%
	Raw Well Water	225		100	1	1	6%	7.9			1	1	36%
	Treated Well Water Treated Surface Water	287 390	433 798	190 191	19 11	19 11	17%	7.6	8.4	7.0	19 12	19 12	18%
	H.U. Raw Surface Water	118	149	93	3	3	13%	8.2	8.6	7.8	3	3	80%
EACE RIVER CORRECTIO	Raw Surface Water	112	131	97	10	10	12%	8.0	8.5	7.5	11	11	59%
	Raw Surface Water	131	299	57	112	112	18%	8.0	8.6	7.4	111	111	57%
	Raw Well Water Treated Well Water	466 156	476	457	2	2	35%	7.5 7.3	7.6	7.4	2	2	10%
	Treated Well Water	140	190	103	2	2	2%	7.4	7.9	6.9	1 2	1 2	4%
	Treated Well Water	493	509	477	3	3	45%	7.6	8.0	7.2	3	3	14%
	Treated Surface Water	156	268	91	13	13	15%	7.6	9.0	6.4	14	14	25%
	Treated Surface Water	133	235	76	155	155	10%	7.3	8.1	6.5	155	155	4%
	H. U. Treated Surface Water Raw Surface Water	166 107	532 126	52 91	5	5	13%	7.2	7.9	6.5	5	5	8%
	Raw Well Water	237	1495	38	2	2	7%	7.8	9.5	6.4	11 2	11 2	21%
	Treated Well Water	131	270	64	17	17	2%	8.1	8.8	7.4	17	17	53%
	Raw Surface Water	359	\$87	145	13	13	79%	7.9	8.7	7.2	13	13	48%
	Treated Surface Water	411	892	189	19	19	71%	7.8	9.0	6.8	19	19	47%
	H. U. Treated Surface Water	712			1	1	98%	8.2			1	1	28%
	Raw Well Water H. U. Raw Well Water	873 918	933 929	\$16 907	6	6	72%	8.6 8.5	8.8	8.4 8.4	6	6	28% 25%
	Treated Well Water	918	1092	771	10	10	80%	8.6	8.9	8.2	10	10	\$7%
	H. U. Treated Well Water	921	924	918	3	3	81%	8.6	8.7	8.4	3	3	86%
	H.U. Raw Surface Water	269	702	103	2	2	59%	7.8	8.3	7.3	2	2	28%
	Raw Surface Water Raw Well Water	165	1730	1585	1 4	1 4	30%	7.5	8.5	7.5	1 4	1	8%
	Treated Well Water	467	4524	48	3	3	42%	7.9	8.7	7.2	3	4	46%
	Treated Surface Water	1645	1877	1441	5	5	100%	8.2	8.9	7.6	5	5	86%
	H. U. Trented Well Water	224	594	85	3	3	9%	7.8	8.4	7.2	3	3	24%
	Raw Well Water	563	1046	304	23	23	46%	8.5	9.1	7.9	23	23	83%
	Raw Well Water H. U. Raw Well Water	1492 551	582	521	1 2	1 2	92% 37%	8.0	9.3	8.4	1 2	1 2	44% 95%
	Treated Well Water	491			1	1	45%	8.5			1	1	84%
	Treated Well Water	1501	1640	1374	4	4	94%	7.9	8.2	7.6	4	4	37%
	Rasw Surface Water	282	594	134	6	6	65%	8.0	9.0	7.2	6	6	63%
	Treated Surface Water	295	620	141	6	6	50%	7.7	8.8	6.7	6	6	37%
	Raw Well Water	479	551	416	12	12	36%	8.1	8.9	7.4	12	12	53%
	H. U. Raw Well Water Treated Well Water	440	586	372	1 2	1 2	21%	7.9	9.0	7.3	1 2	1 2	41%
	Raw Well Water	1055	1170	951	2	2	81%	7.5	7.7	7.4	2	2	12%
	Treated Well Water	1024	1241	845	3	3	34%	7.7	7.9	7.6	3	3	24%
AINBOW LAKE WATER RA	Raw Surface Water	127	179	90	24	24	16%	7.4	8.1	6.8	25	25	4%
	Treated Surface Water	223	350	141	28	28	32%	7.4	10.0	5.5	29	29	9%
	H. U. Treated Surface Water	235	-		3	3	35%	7.4	7.6	7.3	3	3	24%
	Raw Surface Water	361	620	210	3	3	79%	8.1	8.5	7.8	3	3	76%

STATION	TYPE		UPPER										
		MEAN	95%	LOWER 95%	SAMPLES >MLD	# SAMPLES TAKEN	PERCENTILE	MEAN	UPPER 95%	LOWER 95%	SAMPLES >MLD	# SAMPLES TAKEN	PERCENTILE
REDEARTH CREEK DISTRIB	Treated Surface Water	362	LINOT	LIMIT	1	1	GROUP 63%	8.0	LIMIT	LIMIT	1	1	GROUP
REDEARTH WATER TREATED	Treated Surface Water	403	666	243	5	5	69%	7.8	8.2	7.3	5	5	41%
REDEARTH CREEK AFS WAT	Treated Surface Water	271	629	117	6	6	45%	7.8	8.3	7.2	6	6	43%
REINWOOD WATER RAW SU REINWOOD WATER TREATE	Raw Surface Water Treated Surface Water	430 314	529	186	1 13	13	87% 34%	8.2	8.7	7.3	1 13	1 13	83%
RIDGE VALLEY WATER RA	Raw Well Water	841	915	773	4	4	70%	8.8	8.9	8.7	4	4	93%
RIDGE VALLEY WATER TR	Treated Well Water	848	879	819	17	17	76%	8.8	8.9	8.7	17	17	94%
RIDGE VALLEY H.U.WATER	H. U. Treated Well Water	851	882	\$22	3	3	77%	8.7	8.8	8.7	3	3	92%
ROBB WATER RAW WELL ROBB WATER TREATED	Raw Well Water Treated Well Water	467 452	486 461	450	2	2	35%	9.1 9.1			2	2	98%
ROCHESTER WATER RAW W	Raw Well Water	438	401	***	1	1	31%	7.4	9.3	6.0	3	1	99% 6%
ROCKY LANE WATER RAW S	Raw Surface Water	625	890	439	2	2	96%	8.2	8.4	8.0	2	2	85%
ROCKY LANE WATER TREAT	Treated Surface Water	710	956	527	5	5	92%	8.1	8.4	7.7	5	5	77%
ROCKY LANE H.U.WATER T	H. U. Trested Surface Water Raw Surface Water	824			1	1	99%	8.2			1	1	88%
ROYCE WATER RAW SURFA ROYCE WATER RAW WELL	Raw Well Water	890 824	4194	189	6	6	99% 69%	7.7	8.6	7.0	6	6	25%
ROYCE WATER TREATED	Treated Well Water	438	1238	193	25	25	45%	7.7	8.4	7.1	25	25	24%
ROYCE WATER TREATED	Treated Surface Water	160			1	1	16%	7.4			1	1	10%
ROYCE HU.WATER TREATE	H. U. Treated Well Water	352	452	273	2	2	27%	8.0	8.1	7.9	2	2	41%
RYCROFT WATER RAW SUR	Raw Surface Water	359	921	140	19	19	79%	8.1	8.7	7.6	19	19	74%
RYCROFT WATER RAW WEL RYCROFT WATER TREATED	Rasw Well Water Treated Well Water	3041 391	5403 1240	1712	2	2 12	99% 32%	7.8 7.7	8.1	7.5	2	2	28%
RYCROFT WATER TREATED	Treated Surface Water	779	2667	228	10	10	34%	7.8	8.7	7.1	12	12	19%
SANDY LAKE WATER RAWS	Raw Surface Water	115	139	96	6	6	13%	7.8	9.3	6.5	6	6	29%
SANDY LAKE WATER TREAT	Treated Surface Water	187	220	158	10	10	23%	8.0	8.8	7.3	10	10	67%
SANGUDO WATER RAW WEL	Raw Well Water	902	1185	686	12	12	74%	8.5	8.7	8.2	12	12	80%
SANGUDO WATER TREATED SASKATOON ISLAND PROV	Treated Well Water Raw Well Water	\$95 1703	1103 2710	727	27	27	79%	8.4	8.9	8.0 8.1	28	28 6	80% 79%
SASKATOON ISLAND PROVI	Treated Well Water	1986	2028	1945	4	4	93%	8.4	8.8	8.1	4	4	79%
SEXSMITH WATER RAW WE	Raw Well Water	971	1027	917	9	9	78%	8.3	8.6	7.9	9	9	68%
SEXSMITH WATER TREATE	Treated Well Water	966	1004 ·	929	19	19	82%	8.4	8.8	8.0	19	19	77%
SHELL PEACE RIVER INSI	Raw Surface Water	133	136	130	2	2	18%	7.9	7.9	7.8	2	2	44%
SHELL PEACE RIVER INS SIR WINSTON CHURCHILL	Treated Surface Water Raw Surface Water	189	226	158	3	5	23%	7.7	8.3	7.2	3	5	37%
SIR WINSTON CHURCHILL	Treated Surface Water	163	183	146	5	5	17%	8.6	9.1	8.1	1 5	1 5	100%
SLAVE LAKE WATER RAW	Raw Surface Water	105	154	71	20	20	9%	7.8	8.9	6.8	21	21	30%
SLAVE LAKE WATER TREA	Treated Surface Water	111	180	69	30	30	6%	7.6	8.5	6.8	31	31	21%
SMITH WATER RAW SURFAC	Raw Surface Water	213	394	115	6	6	46%	7.7	10.1	5.9	6	6	26%
SMITH WATER TREATED	Treated Surface Water	196	296	130	14	14	25%	8.0	8.7	7.4	14	14	71%
SMITH H.U.WATER TREATE SPIRIT RIVER WATER RA	H. U. Treated Surface Water Raw Surface Water	263.0	329	154	2 30	2 30	44%	7.8 7.8	7.8	7.8	2 31	2 31	60% 38%
SPIRIT RIVER WATER TR	Treated Surface Water	337	549	207	48	48	59%	7.6	8.4	6.9	49	49	26%
ST. ISIDORE WATER RAW	Raw Surface Water	434	694	271	10	10	\$7%	7.9	8.8	7.0	10	10	46%
ST. ISIDORE WATER TRE	Treated Surface Water	399	705	225	21	21	69%	7.7	8.3	7.2	21	21	38%
STRONG CREEK WATER RA	Raw Surface Water	1010			1	1	99%	7.7			1	1	22%
STRONG CREEK WATER RA	Raw Well Water Treated Well Water	992 1025	1208	\$15	7	7	79%	8.0 7.5	8.4	7.6	7	7	46%
STRONG CREEK WATER TR	Treated Surface Water	1033	1175	908	2	2	98%	7.8	7.9	7.6	2	2	41%
SUNSET HOUSE WATER RAW	Raw Well Water	824			1	1	69%	8.8			1	1	93%
SUNSET HOUSE WATER TRE	Treated Well Water	893	1301	612	5	5	79%	8.6	9.0	8.2	5	5	89%
SUNSET HOUSE H.U.WATER	H. U. Treated Well Water	825	840	811	3	3	76%	8.6	8.8	8.5	3	3	87%
SWAN HILLS H.U. WATER R SWAN HILLS WATER RAW	H.U. Raw Surface Water Raw Surface Water	75.27	100	57	5 42	5 42	3%	7.4	7.8	7.0 6.8	5 42	5 42	1%
SWAN HILLS WATER RAW	Raw Well Water	64			1	1	0%	7.9			1	1	36%
SWAN CITY MOBILE HOME	Raw Well Water	739	760	719	3	3	63%	9.0	9.6	8.4	3	3	97%
SWAN HILLS WATER TREA	Treated Well Water	132	198	88	54	54	2%	8.0	8.9	7.2	54	54	46%
SWAN CITY MOBILE HOME SWAN HILLS WATER TREA	Treated Well Water Treated Surface Water	751	797 310	707 91	8	8	70%	8.8 8.3	9.0	8.6	8	8	94%
SWAN HILLS HU.WATER T	H. U. Treated Well Water	128	188	87	5	5	1%	8.0	9.1	7.6	15	15	92% 41%
SWEATHOUSE CWP WATER	Raw Well Water	1255	1316	1196	6	6	88%	8.4	8.8	8.0	6	6	79%
SWEATHOUSE CWP H.U.WAT	H. U. Raw Well Water	1279	1338	1222	2	2	91%	8.2	8.3	8.1	2	2	66%
SWEATHOUSE WATER TREA	Treated Well Water	1152	1662	798	11	11	88%	8.3	8.6	8.1	11	11	75%
T & E MOBILE HOME PAR T & E MOBILE HOME PAR	Raw Well Water Treated Well Water	732 737	759	705	4	4	62%	8.9	9.4	8.4	4	4	95%
T & E MOBILE HOME PARK	H. U. Trented Well Water	735	786	092	1	1	70%	8.9	9.1	8.7	1	1	96%
TANGENT WATER RAW SUR	Raw Surface Water	294	517	167	14	14	67%	8.2	8.6	7.8	14	14	84%
TANGENT WATER TREATED	Treated Surface Water	310	501	192	18	18	53%	8.2	8.9	7.6	18	18	88%
TANGENT H.U. WATER TREA	H. U. Treated Surface Water	212			1	1	28%	8.2			1	1	88%
TEEPEE CREEK WATER TR TOMPKINS WATER RAW SUR	Treated Surface Water Raw Surface Water	1250	1270	1229 560	2 2	2	99%	7.9	8.4	7.5	2 2	2 2	64%
TOMPKINS WATER RAW WEL	Raw Well Water	675		300	î	1	57%	8.3	•		1	1	67%
TOMPKINS WATER TREATED	Treated Well Water	556	771	401	3	3	52%	8.3	8.5	8.2	3	3	73%
TOMPKINS WATER TREATED	Treated Surface Water	582	711	476	5	5	87%	8.1	8.5	7.7	5	5	74%
TOMPKINS H.U. WATER TRE	H. U. Treated Well Water	734	814	662	2	2	70%	8.0	8.2	7.8	2	2	42%
TRIPLE L MOBILE HOME TRIPLE L MOBILE HOME	Raw Well Water Treated Well Water	768 768	885 864	667	40 27	40 27	65%	8.6	9.0 9.0	8.3 8.3	40 27	40 27	38%
TROUT LAKE WATER RAW S	Raw Surface Water	103			1	1	9%	7.9	2.0	•3	1	1	91%
TROUT LAKE WATER RAW	Raw Well Water	568	722	448	12	12	47%	7.7	8.3	7.1	12	12	18%
TROUT LAKE WATER TREA	Treated Well Water	351	1315	94	16	16	25%	8.1	E.8	7.4	16	16	54%
VALLEYVIEW H.U. WATER R VALLEYVIEW WATER RAW	H.U. Raw Surface Water Raw Surface Water	129 133	225 223	74 79	10 31	10 31	16%	7.6	8.1	7.1	10	10	6%
VALLEYVIEW WATER TREA	Treated Surface Water	316	743	134	46	46	54%	7.6	8.3 9.3	7.1	31 46	31 46	16%
VALLEYVIEW HU.WATER T	H. U. Treated Surface Water	243	497	119	9	9	38%	7.5	9.1	6.1	9	9	27%
WABASCA WATER RAW SUR	Raw Surface Water	116	183	73	21	21	13%	7.6	8.3	7.0	21	21	14%
WABASCA WATER TREATED	Treated Surface Water	149	245	91	28	28	13%	7.5	8.3	6.7	28	28	13%
WANDERING RIVER WATER	Raw Surface Water	94	132	67	14	14	7%	7.6	8.2	7.0	14	14	12%
WANDERING RIVER WATER WANHAM WATER RAW SURF	Treated Surface Water Raw Surface Water	110 303	173 622	70	21 33	21 33	5%	7.8	8.7	6.9 7.4	21 33	21 33	44%
WANHAM WATER TREATED	Treated Surface Water	299	574	155	65	33 65	51%	7.7	8.9	6.7	33 66	33 66	55% 39%
	H. U. Treated Surface Water	374	615	227	6	6	73%	7.6	8.4	6.9	6	6	42%
				107	12	12	196	7.1	8.0	6.2	12		1%
WANHAM H.U. WATER TREAT WARRENSVILLE WATER RA	Raw Well Water	148	204	101					e.v	0.2	12	12	170
WANHAM H.U.WATER TREAT WARRENSVILLE WATER RA WARRENSVILLE H.U.WATER	H. U. Raw Well Water	206			1	1	1%	8.2			1	1	63%
WANHAM H.U. WATER TREAT WARRENSVILLE WATER RA			204 176 5356	121 1339					8.1 8.8	6.2 7.7			

			To	al Dissolve	d Solids (m	g/L)				pH (pl	H units)		
STATION	TYPE	MEAN	UPPER 95% LIMIT	LOWER 95% LIMIT	SAMPLES >MLD	TAKEN	PERCENTILE WITHIN GROUP	MEAN	UPPER 95% LIMIT	LOWER 95% LIMIT	SAMPLES >MLD	# SAMPLES TAKEN	PERCENTIL WITHIN GROUP
WEBERVILLE WATER RAW	Raw Well Water	343	547	215	22	22	19%	7.5	8.1	6.9	22	22	8%
WEBERVILLE WATER TREA	Trested Well Water	379	584	246	12	12	30%	7.7	8.7	6.8	12	12	21%
WENBLEY WATER RAW WEL	Rasw Well Water	1519	1827	1264	24	24	93%	8.5	8.7	8.2	25	25	80%
WEMBLEY HU.WATER RAW	H. U. Raw Well Water	1671	1776	1571	3	5	97%	8.5	8.8	8.2	5	5	83%
WEMBLEY WATER TREATED	Treated Well Water	1406	1606	1230	36	36	93%	8.6	8.8	8.3	36	36	88%
WEMBLEY HU. WATER TREA	H. U. Treated Well Water	1673			1	1	96%	8.6			1	1	87%
WEST VALE WATER RAW W	Rasw Well Water	1740	1898	1596	13	13	95%	8.3	9.1	7.5	13	13	66%
WEST VALE WATER TREAT	Treated Well Water	1778	1859	1700	7	7	97%	\$.1	8.4	7.9	8	8	59%
WESTLOCK HU.WATER RAW	H.U. Raw Surface Water	221	391	125	10	10	46%	8.2	8.5	7.8	10	10	78%
WESTLOCK WATER RAW SU	Raw Surface Water	209	323	135	32	32	45%	8.1	8.7	7.5	32	32	71%
WESTLOCK WATER TREATE	Treated Surface Water	229	409	128	45	45	34%	7.9	8.6	7.2	45	45	56%
WESTLOCK HU.WATER TRE	H. U. Trented Surface Water	222	390	126	10	10	31%	7.9	8.1	7.7	10	10	68%
WESTVIEW MOBILE VILLA	Raw Well Water	424	626	287	2	2	29%	7.7	8.8	6.8	2	2	24%
WHITECOURT WATER RAW	Raw Surface Water	206	385	110	13	13	44%	8.2	8.7	7.7	13	13	79%
WHITECOURT WATER TREA	Treated Surface Water	237	354	159	41	41	36%	7.9	8.6	7.3	41	41	57%
WHITECOURT HU.WATER T	H. U. Treated Surface Water	218			1	1	30%	8.1			1	1	85%
WHITELAW WATER RAW SU	Raw Surface Water	278	283	272	3	3	64%	7.6	8.3	7.0	3	3	15%
WHITELAW WATER RAW WE	Raw Well Water	274	296	253	10	10	11%	7.5	8.0	7.1	10	10	11%
WHITELAW SPRING WATER	Raw Well Water	277			1	1	11%	7.4		***	1	1	6%
WHITELAW SPRING WATER	H. U. Raw Well Water	289			1	1	5%	7.3			1	1	6%
WHITELAW WATER TREATE	Treated Well Water	258	321	207	29	29	13%	7.6	8.2	7.0	30	30	15%
WHITELAW SPRING WATER	Treated Well Water	285			1	1	17%	7.3		7.0	1	1	4%
WHITELAW WATER TREATE	Treated Surface Water	286	439	187	6	6	48%	8.0	8.8	7.3	6	6	72%
WHITELAW RU.WATER TRE	H. U. Treated Well Water	268			1	1	15%	7.5		1.5	1	1	9%
WHITEMUD CREEK WATER R	Raw Serface Water	230	364	146	4	4	51%	8.0	8.7	7.4		5	62%
WHITEMUD CREEK WATER	Treated Surface Water	278	530	146	29	29	46%	7.8	8.3	7.4	30	30	51%
WILDWOOD WATER RAW WE	Raw Well Water	663	718	612	2	2	56%	8.0	8.2	7.9	2	2	48%
WILDWOOD H.U.WATER RAW	H. U. Raw Well Water	696		012	ĩ	1	55%	7.7		1.3	1	1	25%
WILDWOOD WATER TREATE	Treated Well Water	683	710	656	6	6	63%	8.1	8.5	7.8	6	6	59%
WILLIAM A SWITZER PROV	Raw Well Water	225	229	220	2	2	6%	9.2	13.0	6.5	2	2	
WILLIAMSON PROVINCIAL	Raw Well Water	719	1079	480	7	Ť	61%	8.7	9.4		7	7	99%
WILLIAMSON PROVINCIAL	Treated Well Water	689	\$18	580			65%	8.8	1.9	8.2		,	92%
WINAGAMI LAKE PROV PK	Raw Surface Water	345	010	360	i	i	77%	7.8	8.9	8.6	4	4	94%
WINAGAMI LAKE PROVINC	Raw Well Water	862	4851	153	4	4	72%	7.7			1	1	33%
WINAGAMI LAKE PROVINCI	Treated Well Water		4651	153			12%		8.4	7.1	4	4	24%
		249			1	1		7.9			1	1	38%
WOKING WATER RAW SURF	Raw Surface Water	253	441	145	25	25	58%	7.9	8.5	7.4	25	25	49%
WOKING WATER TREATED	Treated Surface Water	308	448	212	30	30	53%	7.6	8.4	6.9	30	30	23%
WORSLEY WATER RAW SUR	Raw Surface Water	222	475	104	18	18	49%	\$.0	8.7	7.3	18	18	60%
WORSLEY WATER TREATED	Treated Surface Water	270	562	129	36	36	44%	7.6	8.6	6.7	37	37	24%
WORSLEY H.U. WATER TREA	H. U. Treated Surface Water	442			1	1	83%	7.6			1	1	40%
YOUNG'S POINT PROVINC	Raw Well Water	750	1035	543	10	10	64%	8.6	8.9	8.3	10	10	86%
YOUNG'S POINT PROVINCI	Treated Well Water	860	1592	464	5	5	77%	8.5	8.7	8.3	5	5	84%
ZAMA CITY WATER RAW W	Raw Well Water	739	1091	500	45	45	63%	7.7	8.2	7.2	45	45	20%
ZAMA CITY H.U. WATER RA	H. U. Raw Well Water	870	1609	471	2	2	72%	7.4	7.6	7.1	2	2	10%
ZAMA CITY WATER TREAT	Treated Well Water	971	1424	662	17	17	82%	7.6	8.3	7.1	17	17	18%
ZAMA CITY H.U. WATER TR	H. U. Treated Well Water	1120	1401	895	2	2	88%	7.6	7.7	7.5	2	2	13%

					ty (JTU)		1.1.1.1				ty (NTU)		
STATION	TYPE	MEAN	UPPER 95% LIMIT	LOWER 95% LIMIT	SAMPLES >NELD	# SAMPLES TAKEN	PERCENTILE WITHEN GROUP	MEAN	UPPER 95% LIMIT	LOWER 95% LIMIT	SAMPLES >NLD	# SAMPLES TAKEN	PERCENTILE WITHEN GROUP
AL-PAC CONSTRUCTION CA	Raw Surface Water	8.80			1	1	72%		LADELL	14041	0	0	GROUP
AL-PAC CONSTRUCTION CA	Treated Surface Water				0	1					0	0	
ALBERTA NEWSPRINT MILL	Raw Well Water				0	0					0	0	
AMISK LAKE TRAILER PA ANZAC WATER RAW SURFAC	Treated Surface Water Raw Surface Water	2.60			0	0	100				0	0	
ANZAC WATER RAW WELL	Raw Well Water	2.00			0	0	28%	5			0	0	51%
ANZAC WATER TREATED	Treated Well Water	0.50	5.39	0.05	3	3	38%				ō	ò	3170
ATHABASCA H.U.WATER RA	H.U. Raw Surface Water				0	0					0	0	
ATHABASCA WATER RAWS	Raw Surface Water	7.56	286.78	0.20	10	10	67%				0	0	
ATHABASCA WATER TREAT ATHABASCA H.U.WATER TR	Treated Surface Water H. U. Treated Surface Water	0.25	1.01	0.06	34	36	4%				0	0	
ATIKAMEG WATER RAW SU	Raw Surface Water	3.00			1	1	33%				0	0	
ATIKAMEG WATER RAW WE	Raw Well Water	9.50			1	1	64%				1	1	62%
ATIKAMEG WATER TREATE	Treated Well Water	0.58	7.12	0.05	3	3	42%				1	2	vare .
ATIKAMEG WATER TREATE	Treated Surface Water	31.00			1	2	100%				0	0	
BARRHEAD H.U.WATER RAW	H.U. Raw Surface Water				0	0					0	0	
BARRHEAD WATER RAW SU	Raw Surface Water	5.50			1	1	55%				0	0	
BARRHEAD WATER TREATE BARRHEAD HU.WATER TRE	Treated Surface Water H. U. Treated Surface Water	0.34	0.91	0.13	7	7	7%				0	0	
BEAR CANYON WATER RAW	Raw Surface Water	2.75	5.35	1.42	4	4	30%		10	1	0 4	0	38%
BEAR CANYON WATER TRE	Treated Surface Water	1.61	10.57	0.25	3	5	53%	3	6	;		5	46%
BEAR CANYON HU.WATER	H. U. Treated Surface Water				0	0					0	0	
BEAVERLODGE WATER RAW	Raw Surface Water	11.17	\$2.32	1.52	6	6	79%	11	118	1	4	4	84%
BEAVERLODGE WATER RAW	Raw Well Water				0	0					0	0	
BEAVERLODGE WATER TRE	Treated Well Water	0.59	15.67	0.02	9	9	42%	0			1	4	12%
BEAVERLODGE WATER TRE BERWYN WATER RAW WELL	Treated Surface Water Raw Well Water				0	0					0	0	
BERWYN WATER RAW WELL BERWYN HLU.WATER RAW W	H. U. Raw Well Water				0	0					0	0	
BERWYN WATER TREATED	Treated Well Water	0.99	140.69	0.01	7	7	58%		5	0	0	0	19%
BEZANSON WATER RAW SU	Raw Surface Water	9.00			1	1	73%	•	2	v	0	0	1976
BEZANSON WATER RAW WE	Raw Well Water				0	0	-	2	2	1	2	2	27%
BEZANSON WATER TREATE	Treated Well Water	0.91	1.27	0.65	2	2	35%	2	6	1	2	2	60%
BEZANSON WATER TREATE	Trented Surface Water				0	0					0	0	
BIG PRAIRIE (PEAVINE)H BIG PRAIRIE (PEAVINE)	HLU. Raw Surface Water Raw Surface Water	6.51	10.37	4.08	0 2	0 2	62%		-		0	0	-
BIG PRAIRIE (PEAVINE)	Treated Surface Water	0.57	7.03	0.05	2	2	17%	1 2	7 9	0	3	3	5% 30%
BIG PRAIRIE (PEAVINE)H	H. U. Treated Surface Water				ō	ō		•	,	v	0	0	30%
BLUE RIDGE WATER RAW	Raw Well Water				0	0					0	0	
BLUE HERON ESTATES WA	Raw Well Water				0	0	1				0	0	
BLUE RIDGE H.U.WATER R	H. U. Raw Well Water				0	0	1.00				0	0	
BLUE RIDGE WATER TREA BLUE RIDGE H.U.WATER T	Treated Well Water H. U. Treated Well Water	0.20			1	1	16%	0	3	0	2	2	15%
BLUEBERRY MOUNTAIN WA	Raw Well Water	6.00			0	0	55%				0	0	
BLUESKY WATER RAW SUR	Raw Surface Water	6.16	10.65	3.57	6	6	60%	7	100	1	0	4	71%
BLUESKY WATER TREATED	Treated Surface Water	3.30	10.45	1.04	7	7	78%	5	21	1		5	66%
BLUESKY H.U. WATER TREA	H. U. Treated Surface Water				0	0					0	0	
BONANZA WATER RAW SUR	Rew Surface Water	8.50			1	1	71%				0	0	
BOYLE WATER RAW SURFAC	Raw Surface Water	8.40			1	1	70%				0	0	
BOYLE WATER TREATED	Treated Surface Water	0.89	3.72	0.21	4	4	30%				0	1	
BROWNVALE WATER RAW W BROWNVALE H.U.WATER RA	Raw Well Water H. U. Raw Well Water				0	0		2			1	1	27%
BROWNVALE WATER TREAT	Treated Well Water	1.99	86.91	0.05	4	4	76%	2	7	0	6	0	50%
BRULE H.U. WATER RAW SU	H.U. Raw Surface Water				0	0				•	0	0	30%
BRULE WATER RAW WELL	Raw Well Water				0	0					0	0	
BRULE WATER TREATED	Treated Well Water	0.36	1.01	0.13	5	5	29%				D	0	
BRULE WATER TREATED BUFFALO HEAD PRAIRIE W	Treated Surface Water Raw Surface Water	4.24	8.84	2.03	03	0					0	0	
BUFFALO HEAD PRAIRIE	Treated Surface Water	3.61	20.87	0.62	6	3	46%	1	2	1	0	0 2	23%
BUFFALO HEAD PRAIRIE W	H. U. Treated Surface Water				0	0			-		0	0	2376
CADOMIN WATER RAW WEL	Raw Well Water				0	0					0	0	
CADOTTE LAKE WATER RAW	Raw Surface Water	0.95	1.56	0.58	2	2	6%				0	0	
CADOTTE LAKE WATER RA	Raw Well Water	77.00	1.00	1.2	1	1	91%	12	984	0	3	3	71%
CADOTTE LAKE WATER TR CADOTTE LAKE WATER TR	Treated Well Water Treated Surface Water	0.89	1.17	0.67	2	2	34%	8	90	1	6	6	91%
CALLING LAKE WATER RAW	Raw Surface Water	0.57	1.48	0.22	0	0 2	2%				0	0	
CALLING LAKE WATER RA	Raw Well Water				0	0					0	0	
CALLING LAKE WATER TR	Treated Well Water	0.34	0.70	0.16	5	5	27%	1			1	1	21%
CALLING LAKE WATER TR	Treated Surface Water	0.74	1.13	0.48	4	4	24%				0	0	
CANYON CREEK WATER RA	Raw Surface Water	0.95	9.92	0.09	4	4	6%	5	83	0	3	3	57%
CANYON CREEK WATER TR	Treated Surface Water	0.47	1.96	0.11	6	6	13%	1	1	0	3	4	7%
CARSON-PEGASUS PROV.PK	Raw Surface Water Treated Surface Water	23.00	1.08	0.32	1	1	93%				0	D	
CLAIRMONT WATER RAW W	Raw Well Water	0.16	0.59	0.04	2 7	2 8	18%				0	0	
CLAIRMONT H.U. WATER RA	H. U. Raw Well Water	0.10		0.04	0	0	***				0	2	
CLAIRMONT WATER TREAT	Treated Well Water	0.65	2.65	0.16	3	3	45%	1	2	0	3	3	19%
CLEARDALE WATER RAW S	Raw Surface Water	0.47	1.62	0.14	3	3	1%	4			1	1	44%
CLEARDALE WATER TREAT	Treated Surface Water	0.53	2.97	0.10	3	3	16%	2			1	1	24%
CLEARDALE HU. WATER TR COLINTON WATER RAW WE	H. U. Treated Surface Water Raw Well Water				0	0					0	0	
COLINTON HU.WATER RAW	H. U. Raw Well Water				0	0					0	0	
COLINTON WATER TREATE	Treated Well Water	1.03	73.66	0.01	2	2	59%	4			1	1	74%
COLINTON H.U.WATER TRE	H. U. Treated Weil Water				0	0					o	0	
CONKLIN WATER RAW WEL	Raw Well Water				0	0					0	0	
CONICLIN WATER TREATED	Treated Well Water				0	0					0	0	
CROOKED CREEK WATER R CROOKED CREEK H.U.WATE	Raw Well Water H. U. Raw Well Water				0	0	1				0	0	
CROOKED CREEK WATER T	IL U. Kasw Well Water Treated Well Water	0.54			0	0	40%	1			0	0	
TROSS LAKE PROVINCIAL	Raw Well Water				0	0			4	1	5	5	47%
ROSS LAKE PROV PK H.U	H. U. Raw Well Water				0	0					0	0	
YNTHIA WATER RAW WELL	Raw Well Water				0	0					o	0	
YNTHIA WATER TREATED	Treated Well Water	0.21			1	1	17%				a	0	
	Raw Surface Water	2.20			1	1	23%				0	0	
DAISHOWA CAMP WATER RA													
DAISHOWA CAMP WATER RA DAISHOWA CAMP WATER TR DEADWOOD WATER RAW SU	Treated Surface Water Raw Surface Water	1.10			1	1	38%				0	0	

TATION	TYPE		1000		ty (JTU)		DEDCENT		170000		ty (NTU)	-	DEPOT
STATION	TYPE	MEAN	UPPER 95% LIMIT	LOWER 95% LIMIT	SAMPLES >MLD	# SAMPLES TAKEN	PERCENTILE WITHIN GROUP	MEAN	UPPER 95% LIMIT	LOWER 95% LIMIT	SAMPLES >MLD	# BAMPLES TAKEN	WITHIN
DEADWOOD WATER TREATED	Treated Well Water	0.32	1.21	0.09	2	2	26%				0	0	
DEADWOOD WATER TREATE	Treated Surface Water				0	0		1	4	0	4	4	5%
DEBOLT WATER RAW WELL DEBOLT H.U.WATER RAW W	Raw Well Water H. U. Raw Well Water				0	0					0	0	
DEBOLT WATER TREATED	Treated Well Water	0.38	0.83	0.17	3	3	30%	1	2	0	7	8	23%
DEBOLT H.U.WATER TREAT	H. U. Treated Well Water				0	0					0	0	
DEER HILL WATER RAW W	Raw Well Water	\$5.63	116.57	62.90	3	3	92%	38	348	4	3	3	88%
DEER HILL H.U.WATER RA	H. U. Raw Well Water				0	0					0	0	
DEER HILL WATER TREAT	Treated Well Water	44.00			1	1	100%				0	0	
DEMMITT WATER RAW WELL DESMARAIS WATER RAW S	Raw Well Water Raw Surface Water	41.00 3.81	10.57	1.37	1 5	1 5	83%	5	56	0	0	0	50%
DESMARAIS WATER TREAT	Treated Surface Water	1.22	17.29	0.09	12	12	42%	s	58	0	9	9	70%
DOCONVILLE WATER RAW	Raw Well Water	0.79	2.23	0.28	4	4	20%	1			1	2	19%
DEXONVILLE WATER TREA	Treated Well Water	1.54	7.68	0.31	8	8	70%	3	25	0	3	3	66%
DONNELLY WATER RAW SU	Raw Surface Water	3.68	10.04	1.35	6	6	40%	5	46	1	4	4	54%
DONNELLY WATER TREATE	Treated Surface Water Raw Well Water	0.85	18.76 24.82	0.04	6 2	6 2	29%	2	3	1	5	5	33%
DR.MARY JACKSON SCHOOL	Treated Well Water	0.36	0.64	0.20	2	2	28%				0	0	
EAGLESHAM WATER RAW S	Raw Surface Water	8.66	28.97	2.59	15	15	71%	14	103	2	5	5	90%
EAGLESHAM WATER TREAT	Treated Surface Water	1.01	2.85	0.36	21	21	35%	4	16	1	8		61%
EAST PRAIRIE WATER RAW	Raw Surface Water				0	0					0	0	
EAST PRAIRIE WATER RAW	Raw Well Water	3.83	497.39	0.03	3	3	47%	2			1	1	32%
EAST PRAIRIE WATER TRE	Treated Well Water	0.41	3.37	0.05	3	3	32%	1			1	1	39%
EDSON H.U.WATER RAW SU EDSON WATER RAW SURFAC	H.U. Raw Surface Water Raw Surface Water	1.50			1	1	14%				0	0	
EDSON WATER RAW SURFAC	Rasw Well Water				0	0					0	0	
DSON HU.WATER RAW WE	H. U. Raw Well Water				0	0					0	0	
EDSON WATER TREATED	Treated Well Water	0.58	2.49	0.13	3	4	42%				0	0	
EDSON WATER TREATED	Treated Surface Water				0	0					0	0	
EDSON H.U.WATER TREATE	H. U. Treated Well Water				0	0					0	0	
ELDOE'S MOBILE HOME P ELDOE'S MOBILE HOME P	Raw Well Water Treated Well Water	0.79			0	0	51%	1	3	0	0	0	21%
ELDOE'S MOBILE HOME PK	H. U. Treated Well Water	0.79			ò	0	5174		3	U	0	0	2176
ENTRANCE WATER RAW SU	Raw Surface Water				0	0					0	0	
ENTRANCE HU.WATER RAW	H. U. Raw Well Water				0	0					0	0	
ENTWISTLE WATER RAW W	Raw Well Water	2.30			1	1	37%				0	0	
ENTWISTLE WATER TREAT	Treated Well Water				0	1					0	0	
ENTWISTLE H.U.WATER TR	H. U. Treated Well Water				0	0					0	0	
EUREKA RIVER WATER RA	Raw Well Water H. U. Raw Well Water	72.11	369.31	14.08	2	2	91%	161	829	31	4	4	98%
EUREKA RIVER WATER H.U EUREKA RIVER WATER TR	Treated Well Water	300.01			1	1	100%	40			1	1	100%
VANSBURG WATER RAW W	Raw Well Water				0	0					o	o	100/1
EVANSBURG WATER TREAT	Treated Well Water				0	0					0	0	
EVERGREEN MOBILE HOME	Raw Well Water				0	0					0	0	
FAIRVIEW H.U.WATER RAW	H.U. Raw Surface Water				0	0					0	0	
FAIRVIEW WATER RAW SU	Raw Surface Water	1.63	8.06	0.33	5	3	15%	4	14	1	3	3	40%
FAIRVIEW WATER RAW WE FAIRVIEW WATER TREATE	Raw Well Water Treated Well Water	0.26	0.51	0.14	5	0	21%	1	5	0	0	0 4	38%
FAIRVIEW WATER TREATE	Treated Surface Water	0.20	0.51	0.14	0	0	6174	•	,	v	0	0	3678
FAIRVIEW H.U.WATER TRE	H. U. Treated Well Water				0	0					0	0	
FALHER H.U.WATER RAW S	H.U. Raw Surface Water				0	0					0	0	
FALHER WATER RAW SURF	Raw Surface Water	3.84	20.54	0.72	6	6	42%	5	20	1	4	4	53%
FALHER WATER RAW WELL	Raw Well Water				0	0					0	0	
FALHER WATER TREATED	Treated Well Water Treated Surface Water	0.56	4.11	0.08	9	9	4196	3	9	1	3	3	69%
FALHER WATER TREATED	H. U. Treated Well Water	3.50			0	0	79%	3			1	1	54%
FAUST WATER RAW SURFA	Raw Surface Water	2.10	4.61	0.96	9	9	22%	1	4	0	2	2	2%
FAUST WATER TREATED	Treated Surface Water	1.39	8.17	0.24	11	11	47%	3	16	1	3	5	49%
FAWCETT WATER RAW WEL	Raw Well Water				0	0		3			1	1	38%
FAWCETT H.U.WATER RAW	H. U. Raw Well Water				0	0					0	0	
AWCETT WATER TREATED	Treated Well Water	0.92	99.98	0.01	2	2	56%	10	33	3	2	2	93%
FAWCETT H.U.WATER TREA FLATBUSH WATER RAW WE	H. U. Treated Well Water Raw Well Water				0	0					0	0	
LATBUSH WATER TREATED	Treated Well Water	0.32			1	1	26%				0	0	
LATBUSH H.U.WATER TRE	H. U. Treated Well Water				0	0					0	0	
FOOTNER LAKE WATER RA	Raw Surface Water	8.65	21.53	3.47	3	3	71%	6	19	2	6	6	58%
FOOTNER LAKE WATER TR	Treated Surface Water	1.70	4.48	0.64	1	1	55%	2	13	0	7	7	24%
FORT ASSINIBOINE WATE	Raw Well Water H. U. Raw Well Water				0	0					0	0	
FORT ASSINIBOINE WATE	Treated Well Water	0.04			1	2	196				0	0	
FORT CHIPEWYAN WATER	Raw Surface Water	32.52	357.71	2.96	5	5	97%				0	0	
FORT CHIPEWYAN WATER	Treated Surface Water	2.45	107.97	0.06	10	10	68%	18	37		7	7	96%
FORT MACKAY WATER RAW	Rew Surface Water	5.07	50.84	0.51	4	4	52%				0	0	
FORT MACKAY WATER TRE	Treated Surface Water	1.12	6.37	0.18	8	1	39%				0	0	
FORT MCMURRAY RAW SUR	Raw Surface Water Raw Well Water	4.24	72.91	0.25	23	24	46%				0	0	
FORT MCMURRAY AIRPORT	Treated Well Water	0.55	5.35	0.06	0 61	0 62	40%				0	0	
ORT MCMURRAY TREATED	Treated Surface Water	3.02	16.46	0.55	5	5	75%	1	•	0	24	26	41%
ORT VERMILION WATER	Raw Surface Water	7.05	160.48	0.31	12	12	64%	29	1500	1	6	6	98%
ORT VERMILION WATER	Treated Surface Water	2.04	32.77	0.13	13	13	62%	13	237	i			93%
FORT VERMILION H.U.WAT	H. U. Treated Surface Water				0	٥					0	0	
OX CREEK WATER RAW W	Raw Well Water				0	0	1				0	0	
OX LAKE WATER RAW WE	Raw Well Water				0	0					0	0	
FOX CREEK WATER TREAT	Treated Well Water Treated Well Water	0.70			1	0	47%				0	0	
FOX CREEK HU.WATER TR	H. U. Treated Well Water				0	0					0	0	
SARDEN RIVER COMMUNIT	Raw Well Water				0	0					0	0	
EFT LAKE HU.WATER RA	H.U. Raw Surface Water				0	0					0	0	
EFT LAKE WATER RAWS	Raw Surface Water	1.77	16.56	0.19	8	8	17%	1			1	1	1%
SIFT LAKE WATER TREAT	Treated Surface Water	0.56	6.34	0.05	10	10	17%	2		1	3	3	33%
SIFT LAKE H.U.WATER TR	H. U. Treated Surface Water			0.70	0	0			~		0	0	
GROUXVILLE WATER RAW GROUXVILLE WATER TRE	Raw Surface Water Treated Surface Water	2.73	9.54	0.78	15	15	30%		67	1	3	3	74%
AND AVILLE WATER THE		1.43	4.46	0.46	18	18	3%	4	9	2	3 4	3	66% 5%
FRANDE CACHE WATER RA	Raw Surface Water	0.64										5	

STATION	THE		-		ty (JTU)						ty (NTU)		
STATION	TYPE	MEAN	UPPER 95% LIMIT	LOWER 95% LIMIT	SAMPLES >MLD	# SAMPLES TAKEN	PERCENTILE WITHIN GROUP	MEAN	UPPER 95% LIMIT	LOWER 95% LIMIT	SAMPLES >MLD	# SAMPLES TAKEN	PERCENTIL WITHIN GROUP
GRANDE CACHE WATER TR	Treated Surface Water	0.45	1.75	0.12	11	11	12%	1	3	0	5	6	11%
GRANDE PRAIRIE WATER	Treated Surface Water	0.26	1.04	0.06	17	23	4%	1	3	0	23	26	8%
GRANDE PRAIRIE H.U.WAT GRASSLAND WATER H.U.RA	H. U. Treated Surface Water H.U. Raw Surface Water				0	0					0	0	
GRASSLAND WATER RAW S	Raw Surface Water	4.62	16.31	1.31	7	7	49%				0	0	
GRASSLAND WATER RAW W	Raw Well Water				0	0					o	o	
GRASSLAND H.U.WATER RA	H. U. Raw Well Water	1.5		1.640	0	0					0	0	
GRASSLAND WATER TREAT	Treated Well Water	2.36	7.74	0.72	10	10	80%	9	12	7	3	3	92%
GRASSLAND WATER TREAT GRASSLAND WATER H.U. T	Treated Surface Water H. U. Treated Well Water	17.10	43.62	6.70	3	3	99%				0	0	
GREGOIRE LAKE PROVINC	Raw Surface Water				0	0	1				0	0	
GREGOIRE LAKE PROVINC	Treated Surface Water	0.52			1	1	15%	5			1	1	66%
GRIFFIN CREEK WATER R	Raw Well Water				0	0		2	208	0	3	4	32%
GRIFFIN CREEK H.U.WATE	H. U. Raw Well Water				0	0					0	0	
GRIFFIN CREEK WATER T GRIMSHAW WATER	Treated Well Water Raw Surface Water	0.30			1	1	24%				0	0	
GRIMSHAW WATER RAW WE	Raw Well Water	0.25	0.60	0.10	2	2	25	0			0	0	7%
GRIMSHAW WATER TREATE	Treated Well Water	0.21	1.65	0.03	3	4	17%	1			i	ŝ	19%
GRIMSHAW WATER TREATE	Treated Surface Water				0	0					0	0	
GROUARD WATER RAW SUR	Raw Surface Water	4.86	58.99	0.40	8	3	51%	3			1	1	36%
GROUARD WATER TREATED	Treated Surface Water	2.22	31.54	0.16	13	13	65%	11	49	3	4	4	91%
GROVEDALE HU.WATER RA GROVEDALE WATER TREAT	H. U. Raw Well Water Treated Well Water				0	0					0	0	
GUY WATER RAW SURFACE	Raw Surface Water	10.51	123.53	0.89	7	7	77%				0	0	
GUY WATER TREATED	Treated Surface Water	7.22	\$2.02	0.63	10	10	94%	5	12	2	6	6	70%
GUY HU. WATER TREATEDH	H. U. Treated Surface Water				0	0					0	0	
HAWK HILLS WATER RAW	Raw Surface Water	11.62	161.08	0.84	2	2	80%				0	0	
HAWK HILLS WATER TREA HAWK HILLS H.U. WATER T	Treated Surface Water	5.15	48.04	0.55	6	6	88%	4	32	1	6	6	62%
HAWK HILLS H.U.WATER T HIGH PRAIRIE WATER RA	H. U. Treated Surface Water Raw Surface Water	3.67	12.20	1.10	0	0	40%	3	24	0	0	0	
HIGH PRAIRIE AIRPORT	Raw Serface Water	3.07	12.20	1.10	0	0	4076	3	24	0	3	3	33%
HIGH LEVEL WATER RAW	Raw Surface Water	3.55	19.00	0.66	9	9	39%	4	22	1	7	7	42%
HIGH PRAIRIE WATER RA	Raw Well Water				0	Ð					0	0	
HIGH PRAIRIE WATER TR	Treated Well Water	0.47	2.13	0.10	12	13	36%	2	11	0	3	3	53%
HIGH PRAIRIE AIRPORT	Treated Well Water	4.10			1	1	90%	9	21	4	2	2	92%
HIGH PRAIRIE WATER TR HIGH LEVEL WATER TREA	Treated Surface Water Treated Surface Water	0.71	4.97		0	0					0	0	
HIGH LEVEL HU. WATER T	H. U. Treated Surface Water	0.71	4.97	0.10	12	12	23%	1	12	0	6	6	24%
HILLIARDS BAY PROVINC	Raw Well Water	154.01			1	1	95%				0	0	
HILLIARDS BAY PROV.PK.	H. U. Raw Well Water				0	0					0	o	
HILLIARDS BAY PROVINC	Treated Well Water	0.26	0.34	0.20	2	2	21%				0	0	
HILLIARDS BAY PROV.PK.	H. U. Treated Well Water				0	0					0	0	
HILLPARK MOBILE HOME	Raw Well Water				0	0					0	0	
HILLTOP ESTATES WATER HILLTOP ESTATES TREAT	Rasw Well Water Treated Well Water	1.64			0	0	_	2			0	0	205
HINES CREEK WATER RAW	Raw Surface Water	3.87	16.67	0.90	1	1	72%	1 3	5	0	3	3	36%
HINES CREEK WATER TRE	Treated Surface Water	1.34	4.97	0.36	10	10	45%	2	4	1	3 4	3 4	26%
HINES CREEK WATER H.U.	H. U. Treated Surface Water				0	0		•		•	ō	ō	3476
HINTON WATER RAW SURF	Raw Surface Water	29.20	900.42	0.95	3	3	96%				0	0	
HINTON WATER TREATED	Treated Surface Water	0.74	7.62	0.07	11	14	24%	0	3	0	21	27	3%
HINTON H.U.WATER TREAT HOTCHKISS WATER RAW S	H. U. Treated Surface Water Raw Surface Water	2.75	3.19		0	0					0	0	
HOTCHKISS WATER TREAT	Treated Surface Water	4.07	12.24	2.36	2 5	2 5	30% 83%		205	0	0	0	
HYTHE WATER RAW WELL	Raw Well Water	2.72	552.44	0.01	2	2	40%	•	203	U	4	4	84%
HYTHE H.U.WATER RAW WE	H. U. Raw Well Water				0	0					0	ō	
HYTHE WATER TREATED	Treated Well Water				0	0					0	0	
IANVIER WATER RAW SUR	Raw Surface Water	2.20	6.45	0.75	5	5	23%	1	4	0	2	2	3%
IANVIER WATER TREATED	Treated Surface Water	0.86	8.43	0.09	6	6	29%	3	29	0	5	5	54%
IARVIE WATER RAW WELL IARVIE H.U.WATER RAW W	Raw Well Water H. U. Raw Well Water				0	0					0	0	
ARVIE WATER TREATED	Treated Well Water	0.40			1	1	31%				0	0	
ARVIE H.U.WATER TREAT	H. U. Treated Well Water				0	0					0	0	
ASPER WATER RAW WELL	Raw Well Water				0	0					0	0	
ASPER WATER TREATED	Treated Well Water	0.09	0.12	0.07	3	7	6%				L	1	
ASPER H.U.WATER TREAT	H. U. Treated Well Water	10	14.01		0	0					0	0	
EAN COTE WATER TREAT	Raw Surface Water Treated Surface Water	5.61 5.26	15.21	2.07	7	7	56% 89%	14	310	1	0	0	
EAN COTE HU.WATER TR	H. U. Treated Surface Water				0	ō			310		0	5	94%
OUSSARD WATER RAW SU	Raw Surface Water	4.58	145.42	0.14	7	7	48%	3			1	1	31%
OUSSARD WATER TREATE	Treated Surface Water	2.43	\$6.99	0.10	10	10	68%	3	18	1	6	6	52%
KEG RIVER WATER RAW SU KEG RIVER WATER RAW W	Raw Surface Water Raw Well Water	4.40	108.34	0.18	5	5	47%				0	0	
EGRIVER WATER TREAT	Treated Well Water	1.47	22.68	0.09	0	0	69%				0	0	1.1
EGRIVER WATER TREAT	Treated Surface Water		22.00	0.07	0	0	6376	3	15	1	7	7	71%
EGRIVER HU.WATER TR	H. U. Treated Well Water				0	0					0	0	
CINUSO WATER RAW SURF	Raw Surface Water	12.32	94.55	1.61	4	4	\$2%	19	48	7	7	7	95%
CINUSO WATER TREATED	Treated Surface Water	1.76	31.56	0.10		8	56%	3	36	0	5	6	54%
INUSO H.U. WATER TREAT	H. U. Treated Surface Water				0	0	1				0	0	
A CRETE WATER HU.RAW	H. U. Treated Well Water H. U. Raw Well Water				0	0					0	0	
A CRETE WATER RAW SU	Raw Surface Water	0.15			1	1	0%	2			0	0	10%
A CRETE WATER RAW WE	Raw Well Water	0.21	1.26	0.04	6	7	7%	0	1	0	2	2	10%
A CRETE WATER TREATE	Trested Well Water	0.14	0.37	0.05	6	9	10%	1	3	0	4	6	20%
A CRETE WATER TREATE	Treated Surface Water				0	0					0	0	
A GLACE WATER RAW WE	Raw Well Water				0	0					0	1	
A GLACE WATER TREATE	Treated Well Water H.U. Raw Surface Water				0	0	1	0	0	0	3	3	5%
AC LA BICHE H.U.WATER	H.U. Raw Seriace Water H. U. Treated Well Water				0	0					0	0	
AC LA BICHE WATER RA	Raw Surface Water	0.80			1	2	4%				0	0	
AC LA BICHE WATER RA	Raw Well Water				0	ő					0	0	
AC LA BICHE WATER TR	Treated Well Water	0.48	2.67	0.09	9	9	36%				0	0	
AC LA BICHE WATER TR	Treated Surface Water				0	1	1				0	0	
AKEVIEW ESTATES WATE	Raw Well Water				0	0					0	0	
ESSER SLAVE LAKE PROV	Raw Well Water	20.62	844.68	0.50	7	7	76%				0	0	

					ty (JTU)						ty (NTU)		
STATION	TYPE	MEAN	UPPER 95% LINIT	LOWER 95% LIMIT	SAMPLES >MLD	# SAMPLES TAKEN	PERCENTILE WITHIN GROUP	MEAN	UPPER 95% LINIT	LOWER 95% LIMIT	SAMPLES >MLD	# SAMPLES TAKEN	PERCENTIL WITHIN GROUP
LINARIA WATER RAW WEL	Raw Well Water				0	0					0	0	
LITTLE BUFFALO WATER	Raw Surface Water	3.02	26.01	0.35	5	6	33%	2	8	0	4	4	11%
LITTLE BUFFALO WATER	Treated Surface Water	2.75	12.44	0.61	11	12	72%	3	7	1	6	6	52%
LODGEPOLE ELU.WATER RA	H. U. Raw Well Water Treated Well Water				0	0					0	0	
LOON LAKE WATER RAWS	Raw Surface Water	7.28	79.26	0.67	10	10	66%	10	47	2			\$1%
OON LAKE WATER TREAT	Treated Surface Water	3.88	27.50	0.55	14	14	82%	4	18	1	9	9	60%
MANNING WATER RAW SUR	Raw Serface Water	3.65	33.73	0.39	6	6	40%	.4	15	1	6	6	42%
ANNING WATER TREATED	Treated Surface Water	0.42	2.50	0.07	8	10	11%	1	7	0	6	6	19%
MANNING EAST WATER TR	Treated Surface Water Raw Well Water	2.61	45.20	0.15	0	0	101	3	20	0	4	4	51%
MANOLA WATER TREATED	Treated Well Water	0.30			1	i	24%				0	0	
MANOLA HU.WATER TREAT	H. U. Treated Well Water				0	0					0	0	
ARE-REINE WATER RAW	Raw Surface Water	9.20	and and a second		1	1	73%				0	0	
MARIE-REINE WATER TRE MARLBORO WATER RAW WEL	Treated Surface Water	11.36	454.83	0.28	2	2	98%	3	26	0	3	5	55%
ARLBORO H.U.WATER RAW	Raw Well Water H. U. Raw Well Water				0	0					0	0	
ARLBORO WATER TREATED	Treated Well Water				0	o					ő	0	
AYERTHORPE WATER RAW	Raw Well Water				0	0					0	0	
AYERTHORPE WATER TRE	Treated Well Water	2.67	152.86	0.05	2	3	83%				0	0	
AYERTHORPE H.U.WATER	H. U. Trested Well Water				0	0					0	0	
ICINNIS WATER RAW WELL	Raw Well Water	0.63			1	1	17%				0	0	
ICENNIS H.U.WATER RAW	H. U. Raw Well Water Raw Surface Water	17.03	88.60	3.27	7	7	89%	7	47	1	0	0 7	69%
ICLENNAN WATER TREATE	Treated Surface Water	1.60	6.21	0.41	10	10	52%	4	12	1	7	7	57%
GEANDER RIVER WATER R	Raw Surface Water				0	0					o	0	2.14
EANDER RIVER WATER R	Raw Well Water				0	0					0	0	
EANDER RIVER WATER T	Treated Well Water				0	0		1			1	1	45%
ITSUE WATER RAW SURF	Raw Surface Water	6.10			1	1	59%	2			1	1	10%
ITSUE WATER TREATED	Treated Surface Water	3.99	10.70	1.49	2	2	83%	3	7	2	3	3	56%
OONSHINE LAKE PROV PK	H.U. Raw Surface Water Raw Surface Water	3.48	31.02	0.39	3	0	3396				0	0	
CONSHINE LAKE PROVINC	Treated Surface Water	1.03	2.02	0.39	3	3	36%				0	0	
OONSHINE LAKE PROV PK	H. U. Treated Surface Water	1.00		0.04	0	0					0	0	
AMPA WATER RAW SURFA	Rew Surface Water	7.43	53.68	1.03	8	8	66%	6	65	0	4	4	60%
AMPA WATER TREATED	Treated Surface Water	2.14	15.85	0.29	12	12	63%	5	23	1	9	9	71%
EERLANDIA WATER RAW S	Raw Surface Water	4.56	\$3.18	0.25	2	2	48%				0	0	
EERLANDIA WATER RAW	Raw Well Water				0	0					0	0	
EERLANDIA WATER TREAT	Treated Well Water	1.24	3.70	0.42	8	8 0	64%				C C	0	
EERLANDIA WATER TREA	Treated Surface Water H. U. Treated Well Water				0	0					0	0	
EW FISH CREEK WATER	Raw Well Water				0	0					0	0	
EW FISH CREEK WATER	Treated Well Water	0.18			1	1	14%	2	3	1	5	5	54%
EW FISH CREEK H.U.WAT	H. U. Treated Well Water				0	0					0	0	
OTIKEWIN PROVINCIAL	Raw Surface Water				0	0					0	0	
NOTIKEWIN PROVINCIAL	Raw Well Water	1.20			0	0	63%				0	0	
ADDLE PRAIRIE H.U.WAT	Treated Well Water H.U. Raw Surface Water	1.20			0	0	6376				0	0	
ADDLE PRAIRIE WATER	Raw Surface Water	5.28	22.67	1.23	11	12	34%	4	8	2	6	6	48%
ADDLE PRAIRIE WATER	Raw Well Water				0	0					0	0	
ADDLE PRAIRIE WATER	Treated Well Water	1.12	21.18	0.06	10	10	61%	3	8	1	2	2	72%
ADDLE PRAIRIE WATER	Treated Surface Water	1.68	5.81	0.49	5	6	54%	4	8	2	4	4	60%
EACE RIVER HLU.WATER	HLU. Raw Surface Water	34.29		3.08	0 4	0	97%	7			0	0	-
EACE RIVER CORRECTIO	Raw Surface Water Raw Surface Water	9.19	381.49 201.63	0.42	9	9	73%	3	129	0	5 2	5 2	71%
EACE RIVER A.P.WATER	Raw Well Water	1.23	1286.46	0.00	2	2	26%	3	-	•	0	0	3076
EACE POINT WATER TRE	Treated Well Water				0	0		11			1	1	94%
EACE RIVER A.P.TRUCKE	Treated Well Water	0.81	3.03	0.21	2	2	52%				0	0	
EACE RIVER AIRPORT TR	Treated Well Water	0.46	1.90	0.11	3	3	35%				0	0	
EACE RIVER CORRECTIO	Treated Surface Water	0.93	11.18	0.08	5	5	32%	2	14	0	5	5	28%
EACE RIVER WATER TRE EACE RIVER HU.WATER	Treated Surface Water H. U. Treated Surface Water	0.21	1.16	0.04	18	22	3%	0	2	0	19	28	3%
EERLESS LAKE WATER R	Raw Surface Water	3.96	12.19	1.29	7	7	43%	5	5	4	2	2	51%
EERLESS LAKE WATER R	Raw Well Water				0	0		2			1	1	33%
EERLESS LAKE WATER T	Treated Well Water	1.96	6.65	0.58		8	76%	2	4	1	3	3	63%
EORIA WATER RAW SURF	Raw Surface Water	6.31	34.84	1.14	5	5	60%	10	300	0	3	3	82%
EORIA WATER TREATED	Treated Surface Water	2.92	21.51	0.40	5	5	74%	2	9	0	5	5	36%
EORIA H.U.WATER TREAT	H. U. Treated Surface Water Raw Well Water				0	0					0	0	
BROCH HU.WATER RAW	H. U. Raw Well Water				0	0					0	0	
BROCH WATER TREATED	Treated Well Water	0.35	1.74	0.07	2	2	28%				0	0	
BROCH H.U. WATER TREA	H. U. Treated Well Water				0	0					0	0	
ICKARDVILLE H.U.WATER	H.U. Raw Surface Water				0	0					0	0	
ICKARDVILLE WATER RAW	Raw Surface Water				0	0					0	0	
ICKARDVILLE WATER RA	Raw Well Water				0	0					0	0	
ICKARDVILLE WATER TR	Treated Well Water Treated Surface Water	0.39			1	1	31%				0	0	
CKARDVILLE HU.WATER	H. U. Treated Well Water				o	0					0	0	
INE SHADOWS TRAILER	Raw Well Water				0	0					0	0	
INE LANE TRAILER PAR	Raw Well Water				0	٥					0	0	
INE SHADOWS TRAILER P	H. U. Raw Well Water				0	0					0	0	
INE SHADOWS ESTATES	Treated Well Water				0	0					0	0	
NE LANE TRAILER PAR LAMONDON WATER RAW S	Treated Well Water Raw Surface Water	2.40	5.33	1.08	0	1 2	26%	7			0	0	-
LAMONDON WATER TREAT	Treated Surface Water	0.48	1.68	0.14	4	4	13%	5	23	1	2	1 2	68%
OPLAR PLACE MOBILE H	Raw Well Water				0	0			_		0	ō	
OPLAR PLACE MHP H.U.W	H. U. Raw Well Water				0	0					0	0	
OPLAR PLACE MOBILE HO	Treated Well Water				0	0					0	0	
UEEN ELIZABETH PROVI	Raw Well Water				0	0					0	0	
UEEN ELIZABETH PROVIN	Trested Well Water	0.14	14.73	1.05	1	1 12	10%				0	0	
AINBOW LAKE WATER RA	Raw Surface Water Treated Surface Water	3.94	14.73	0.14	13	12	43%	3	8	1	8 7	8	31%
AINBOW LAKE WATER TR AINBOW LAKE H.U.WATER	H. U. Treated Surface Water	0.90	2.11	0.10	0	0	2170		11	U	0	8	5%
EDEARTH WATER RAW SUR	Raw Surface Water	4.74	18.51	1.21	3	3	50%				0	0	
	Raw Surface Water	0.59	0.62	0.56	2	2	2%				0	0	

STATION	TYPE		Images		ty (JTU)		DED				ty (NTU)		the second
STATION	TYPE	MEAN	UPPER 95%	LOWER 95%	SAMPLES >MLD	* SAMPLES TAKEN	PERCENTILE	MEAN	OPPER 95%	LOWER 95%	SAMPLES >MLD	# SAMPLES TAKEN	WITHIN
REDEARTH CREEK DISTRIB	Treated Surface Water	1.76	LIMIT	LIMIT	1	1	GROUP 56%		LIMIT	LIMIT	0	0	GROUP
REDEARTH WATER TREATED	Treated Surface Water	1.61	4.66	0.56	5	5	53%				0	0	
REDEARTH CREEK AFS WAT	Treated Surface Water	0.63	2.10	0.19	3	3	20%				0	0	
REINWOOD WATER RAW SU	Raw Surface Water				0	0					0	0	
REINWOOD WATER TREATE	Treated Surface Water	14.31	112.40	1.82	3	3	99%	13	42	4	3	3	93%
RIDGE VALLEY WATER TR	Raw Well Water Treated Well Water	0.15	0.26	0.08	0 2	0 2	11%	0	1	0	0 3	0	8%
RIDGE VALLEY HU.WATER	H. U. Treated Well Water				0	0		•		•	0	0	876
ROBB WATER RAW WELL	Raw Well Water				0	0					0	0	
ROBB WATER TREATED	Treated Well Water				0	0					0	0	
ROCHESTER WATER RAW W	Raw Well Water				0	0					0	0	
ROCKY LANE WATER RAW S ROCKY LANE WATER TREAT	Raw Surface Water Treated Surface Water	5.41	45.92	0.64	2	2	55%				0	0	
ROCKY LANE H.U.WATER T	H. U. Treated Surface Water	4.92	19.10	1.2)	0	4	8875				0	0	
ROYCE WATER RAW SURFA	Raw Surface Water	5.40	5.68	5.13	2	2	55%	15			1	1	92%
ROYCE WATER RAW WELL	Raw Well Water				0	0					o	0	
ROYCE WATER TREATED	Treated Well Water	4.15	32.67	0.53	6	6	90%	6	39	1	4	4	85%
ROYCE WATER TREATED	Trented Surface Water				0	0					0	0	
ROYCE H.U. WATER TREATE RYCROFT WATER RAW SUR	H. U. Treated Well Water Raw Surface Water	17.29	94.84	3.15	0	0	\$9%	12	43		0	0	
RYCROFT WATER RAW WEL	Raw Well Water	11.47		3.45	0	0		42	•3	3	6	6	87% 89%
RYCROFT WATER TREATED	Treated Well Water	1.69	6.55	0.44	9	9	72%	4	14	1	3	3	76%
RYCROFT WATER TREATED	Treated Surface Water				0	0		2	4	1	2	2	33%
SANDY LAKE WATER RAWS	Raw Surface Water	11.22	13.51	9.33	2	2	79%	5			1	1	54%
SANDY LAKE WATER TREAT	Treated Surface Water	7.04	13.10	3.79	5	5	93%	3			1	1	51%
SANGUDO WATER RAW WEL	Raw Well Water				0	0					0	0	
SANGUDO WATER TREATED SASKATOON ISLAND PROV	Treated Well Water Raw Well Water	0.20			1	1	16%				0	0	
SASKATOON ISLAND PROVI	Staw Well Water	1.06	5.38	0.10	1	1 2	24%				0	0	
SEXSMITH WATER RAW WE	Raw Well Water			0.20	0	0					0	0	
SEXSMITH WATER TREATE	Treated Well Water	1.09	1.83	0.65	2	2	60%				0	0	
SHELL PEACE RIVER INSI	Raw Surface Water	336.00			1	1	100%				0	0	
SHELL PEACE RIVER INS	Treated Surface Water	4.23	62.80	0.29	2	2	84%	4	5	3	2	2	60%
SIR WINSTON CHURCHILL	Raw Surface Water	10.20			1	1	76%				0	0	
SIR WINSTON CHURCHILL SLAVE LAKE WATER RAW	Treated Surface Water Raw Surface Water	1.61 2.31	5.36 99.10	0.49	3	3	53%				0	0	1.1.1.1
SLAVE LAKE WATER TREA	Treated Surface Water	1.42	58.09	0.03	20	20	25%	2	31	0	4	4	17%
SMITH WATER RAW SURFAC	Raw Surface Water	3.95	66.91	0.23	5	5	43%		•	U	0	0	9%
SMITH WATER TREATED	Treated Surface Water	1.07	8.02	0.14	9	9	37%	2			1	1	31%
SMITH H.U.WATER TREATE	H. U. Treated Surface Water	0.39	0.79	0.19	2	2					0	0	
SPIRIT RIVER WATER RA	Raw Surface Water	7.66	39.36	1.49	16	16	67%	11	114	1	4	4	85%
SPIRIT RIVER WATER TR ST. ISIDORE WATER RAW	Treated Surface Water Raw Surface Water	0.31 4.15	1.27 33.88	0.08	20	21	6% 45%	5	25	1	5	5	71%
ST. ISIDORE WATER TRE	Treated Surface Water	1.09	12.77	0.09	6	6	38%		39	2	1 4	2	64% 84%
STRONG CREEK WATER RA	Raw Surface Water				0	0			35	•	0	0	8478
STRONG CREEK WATER RA	Raw Well Water				0	0		3	661	0	3	4	42%
STRONG CREEK WATER TRE	Treated Well Water				0	0	1				0	0	
STRONG CREEK WATER TR	Treated Surface Water				0	0		3	3	2	2	2	56%
SUNSET HOUSE WATER RAW	Raw Well Water				0	0					0	0	
SUNSET HOUSE WATER TRE	Treated Well Water	0.75			1	1	49%	1			1	1	29%
SUNSET HOUSE H.U.WATER SWAN HILLS H.U.WATER R	H. U. Treated Well Water H.U. Raw Surface Water	0.90			0	0					0	0	
WAN HILLS WATER RAW	Raw Surface Water	1.74	8.16	0.37	10	10	17%	2	5	1	2	0 2	13%
WAN HILLS WATER RAW	Raw Well Water				0	0			5		ō	0	1375
SWAN CITY MOBILE HOME	Raw Well Water				0	0					0	0	
SWAN HILLS WATER TREA	Treated Well Water	0.35	1.96	0.06	19	20	28%	1			1	1	23%
SWAN CITY MOBILE HOME	Treated Well Water	3.00			1	1	85%	1	5	0	3	4	32%
SWAN HILLS WATER TREA SWAN HILLS HU.WATER T	Treated Surface Water H. U. Treated Well Water				0	0					0	0	
WEATHOUSE CWP WATER	Raw Well Water				0	0		3		1	0 2	0	37%
WEATHOUSE CWP HU.WAT	H. U. Raw Well Water				0	0					0	0	3/70
WEATHOUSE WATER TREA	Treated Well Water	0.66			1	1	46%	2	5	1	3	3	55%
A E MOBILE HOME PAR	Raw Well Water				0	0					0	0	
T & E MOBILE HOME PAR	Treated Well Water H. U. Treated Well Water	0.25			1	1	20%	1	2	0	2	3	20%
T & E MOBILE HOME PARK TANGENT WATER RAW SUR	H. U. Ireated Well Water Raw Surface Water	2.59	13.30	0.50	0 4	0 4	28%		97		0	0	
TANGENT WATER TREATED	Treated Surface Water	2.59	11.12	0.60	3	5	70%	* 7	62	1	4 5	4 5	74%
TANGENT H.U.WATER TREA	H. U. Treated Surface Water				0	0			02		0	0	0076
TEEPEE CREEK WATER TR	Treated Surface Water				0	0		9	55	1	2	2	86%
TOMPKINS WATER RAW SUR	Raw Surface Water	8.46	17.53	4.08	2	2	71%				0	0	
TOMPKINS WATER RAW WEL	Raw Well Water				1	1					0	0	
TOMPKINS WATER TREATED	Trented Well Water	2.49	25.70	0.24	3	3	81%				0	0	
TOMPKINS WATER TREATED	Treated Surface Water H. U. Treated Well Water	2.25	13.20	0.39	4	4	65%				0	0	
TRIPLE L MOBILE HOME	Raw Well Water				0	0					0	0	
TRIPLE L MOBILE HOME	Treated Well Water	0.16			1	2	12%	0			1	2	13%
ROUT LAKE WATER RAWS	Raw Surface Water				0	ō					0	ō	1376
ROUT LAKE WATER RAW	Raw Well Water	91.30	223.85	37.23	4	4	92%	96	163	56	4	4	96%
ROUT LAKE WATER TREA	Treated Well Water	6.72	39.02	1.16	4	4	95%	0	0	0	2	2	6%
ALLEYVIEW H.U.WATER R	H.U. Raw Surface Water				0	0		10.1			0	0	
ALLEYVIEW WATER RAW	Raw Surface Water Treated Surface Water	10.01	29.00 7.95	3.46	7	7	76%	15	98	2	6	6	92%
ALLEYVIEW HU.WATER T	H. U. Treated Surface Water	0.46	1.32	0.03	15	16	13%	1	7	0	4	7	16%
WABASCA WATER RAW SUR	Raw Surface Water	3.43	30.35	0.39	9	9	38%	5	36	1	0	0	52%
WABASCA WATER TREATED	Treated Surface Water	2.39	9.55	0.60	12	12	67%	4	40	ō			62%
WANDERING RIVER WATER	Raw Surface Water	12.86	40.19	4.11	3	3	83%	20			1	1	96%
WANDERING RIVER WATER	Treated Surface Water	1.77	17.49	0.18		8	56%	161	11048916	0	3	3	100%
WANHAM WATER RAW SURF	Raw Surface Water Treated Surface Water	6.27 1.28	22.47	1.75	17	17 19	60%	6	29	1	4	4	62%
WANHAM H.U. WATER TREAT	H. U. Trested Surface Water	1.60	01	0.41	19	19	44%	4	22	1	4	4	58%
VARRENSVILLE WATER RA	Raw Well Water	21.00			1	1	77%	2			0	0 2	31%
VARRENSVILLE H.U. WATER	H. U. Raw Well Water				0	ō					0	0	3176
WARRENSVILLE WATER TR	Treated Well Water				0	0		9	153	1	3	3	92%
WATINO WATER RAW WELL	Raw Well Water	4.70			1	1	50%	12	109	1	3	3	70%
WATINO WATER TREATED	Treated Well Water	8.80			1	1	97%	5	8	3	2	2	84%

				Turbid	ity (JTU)					Turbidi	ty (NTU)		
STATION	TYPE		UPPER	LOWER	SAMPLES	# SAMPLES	PERCENTILE		UPPER	LOWER	SAMPLES	# SAMPLES	PERCENTIL
		MEAN	95% LINIT	95% LIMIT	>MLD	TAKEN	WITHIN	MEAN	95% LINUT	95%	>MLD	TAKEN	GROUP
WEBERVILLE WATER RAW	Raw Well Water	1.27	48.61	0.03	5	5	27%	5	245	0	5	7	52%
WEBERVILLE WATER TREA	Treated Well Water	4.60			1	1	91%	7	392	0	4	4	89%
WEMBLEY WATER RAW WEL	Raw Well Water				0	0					0	0	
WEMBLEY HU.WATER RAW	H. U. Raw Well Water				0	0					0	0	
WEMBLEY WATER TREATED	Treated Well Water	0.80	5.53	0.12	2	3	51%	0	1	0	2	2	7%
WEMBLEY HU. WATER TREA	H. U. Treated Well Water				D	0					0	0	
WEST VALE WATER RAW W	Raw Well Water				0	0		39	193	8	3	3	89%
WEST VALE WATER TREAT	Treated Well Water	9.60			1	1	97%	22	52	9	2	2	98%
WESTLOCK HU.WATER RAW	H.U. Rew Surface Water				0	0					0	0	
WESTLOCK WATER RAW SU	Raw Surface Water				0	0		1			1	1	6%
WESTLOCK WATER TREATE	Treated Surface Water	0.23	0.93	0.06	8	8	3%	1	16	0	2	2	10%
WESTLOCK HU, WATER TRE	H. U. Treated Surface Water	1			0	0					0	0	
WESTVIEW MOBILE VILLA	Raw Well Water				0	0					0	0	
WHITECOURT WATER RAW	Raw Surface Water	3.35	38.99	0.29	5	5	37%				0	0	
WHITECOURT WATER TREA	Treated Surface Water	0.45	2.92	0.07	12	13	12%						
	H. U. Treated Surface Water	0.43	6.96	0.07	0	0	1670				0		
WHITECOURT H.U.WATER T					0	0					0	0	
WHITELAW WATER RAW SU	Raw Surface Water					2	14%		0	0	2	2	4%
WHITELAW WATER RAW WE	Raw Well Water	0.46	2.09	0.10	2	0	1470	0	0	U	-	2	476
WHITELAW SPRING WATER	Raw Well Water				0	-					0		
WHITELAW SPRING WATER	H. U. Raw Well Water				0	0					0	0	
WHITELAW WATER TREATE	Treated Well Water	0.29	0.67	0.12	4	4	23%	1	257	0	3	7	31%
WHITELAW SPRING WATER	Trented Well Water				0	0					0	0	
WHITELAW WATER TREATE	Treated Surface Water					0					0	0	
WHITELAW H.U.WATER TRE	H. U. Treated Well Water				0	0					0	0	
WHITEMUD CREEK WATER R	Raw Surface Water	33.05	64.23	17.00	2	2	97%	1.1.1	1.1		0	0	1.1.1
WHITEMUD CREEK WATER	Treated Surface Water	5.65	168.09	0.19	5	5	90%	10	48	2	5	5	88%
WILDWOOD WATER RAW WE	Raw Well Water				0	0					0	0	
WILDWOOD H.U.WATER RAW	H. U. Raw Welt Water				0	0	1.1.1				0	0	
WILDWOOD WATER TREATE	Treated Well Water	2.70			1	1	83%				0	0	
WILLIAM A SWITZER PROV	Raw Well Water				0	0					0	0	
WILLIAMSON PROVINCIAL	Raw Well Water	0.63	2.18	0.18	3	3	17%				0	0	
WILLIAMSON PROVINCIAL	Treated Well Water	1.10	22.93	0.05	2	3	61%				0	0	
WINAGAMI LAKE PROV PK	Raw Surface Water				0	0					0	0	
WINAGAMI LAKE PROVINC	Raw Well Water				0	0					0	0	
WINAGAMI LAKE PROVINCI	Treated Well Water	0.37			1	1	29%				0	0	
WORING WATER RAW SURF	Rasy Surface Water	5.13	39.37	0.67	15	18	53%	7	45	1	5	5	71%
WOKING WATER TREATED	Treated Surface Water	2.12	7.65	0.59	19	19	63%	3	21	0	6	6	48%
WORSLEY WATER RAW SUR	Raw Surface Water	3.03	9.00	1.02	7	7	33%		72	1	6	6	74%
WORSLEY WATER TREATED	Treated Surface Water	0.95	4.79	0.19	9	9	32%	3	7	1	6	6	50%
WORSLEY HU.WATER TREA	H. U. Treated Surface Water				0	0					0	0	
YOUNG'S POINT PROVINC	Raw Well Water				0	0					0	0	
YOUNG'S POINT PROVINCI	Treated Well Water	0.81	2.72	0.24	2	2	52%				0	0	
ZAMA CITY WATER RAW W	Raw Well Water	23.79	109.63	5.16			78%	19	134	3	15	15	78%
ZAMA CITY HU.WATER RA	H. U. Raw Well Water		107.00	2.20	0	0			1.44		0	0	
ZAMA CITY WATER TREAT	Treated Well Water	2.07	8.81	0.48	6	6	77%	1	4	0	3	3	33%
ZAMA CITY HU.WATER TR	H. U. Treated Well Water	2.01		0.00	0	0					0	0	

11

1

ŕ

STATION	TYPE		UPPER	Hardne	ss (mg/L)	# SAMPLES	PERCENTILE
		MEAN	95%	95% LIMIT	>MLD	TAKEN	WITHIN
AL-PAC CONSTRUCTION CA	Raw Surface Water Treated Surface Water				0	0	
ALBERTA NEWSPRINT MILL	Raw Well Water				0	0	
AMISK LAKE TRAILER PA	Treated Surface Water	500			1	1	95%
ANZAC WATER RAW SURFAC	Raw Surface Water Raw Well Water	101			1	1 5	14%
ANZAC WATER TREATED	Treated Well Water	77	187	32	2	2	43%
ATHABASCA H.U.WATER RA ATHABASCA WATER RAW S	H.U. Raw Surface Water Raw Surface Water	165	306 353	89 82	8	8	42%
ATHABASCA WATER TREAT	Treated Surface Water	157	278	89	12	12	47%
ATHABASCA H.U.WATER TR	H. U. Treated Surface Water	162	303	87	8	8	38%
ATIKAMEG WATER RAW SU ATIKAMEG WATER RAW WE	Raw Surface Water Raw Well Water				0	0	
ATIKAMEG WATER TREATE	Treated Well Water				0	0	
ATIKAMEG WATER TREATE BARRHEAD H.U.WATER RAW	Treated Surface Water H.U. Raw Surface Water	148	1026	21	10 L	10	44%
BARRHEAD WATER RAW SU	Raw Surface Water	204	249	167	3	3	67%
BARRHEAD WATER TREATE	Trented Surface Water	208	255	170	4	4	64%
BARRHEAD H.U.WATER TRE BEAR CANYON WATER RAW	H. U. Treated Surface Water Raw Surface Water				0	0	
BEAR CANYON WATER TRE	Treated Surface Water	348			L	1	87%
BEAR CANYON HU.WATER	H. U. Treated Surface Water		281	**	0	0	23%
BEAVERLODGE WATER RAW BEAVERLODGE WATER RAW	Raw Surface Water Raw Well Water	119	281	50	22 0	0	2376
BEAVERLODGE WATER TRE	Treated Well Water				٥	0	
BEAVERLODGE WATER TRE BERWYN WATER RAW WELL	Treated Surface Water Raw Well Water	86	671	11	3	3	16%
BERWYN HU.WATER RAW W	H. U. Raw Well Water				0	0	
BERWYN WATER TREATED	Treated Well Water	315	376	263	5	5	82%
BEZANSON WATER RAW SU BEZANSON WATER RAW WE	Raw Surface Water Raw Well Water				0	0	
BEZANSON WATER TREATE	Treated Well Water				0	0	
BEZANSON WATER TREATE	Treated Surface Water	11	19	7	6	6	0%
BIG PRAIRIE (PEAVINE)H BIG PRAIRIE (PEAVINE)	H.U. Raw Surface Water Raw Surface Water				0	0	
BIG PRAIRIE (PEAVINE)	Treated Surface Water				0	o	
BIG PRAIRIE (PEAVINE)H	H. U. Treated Surface Water				0	0	
BLUE RIDGE WATER RAW BLUE HERON ESTATES WA	Raw Well Water Raw Well Water	105	525	21	2	3	39%
BLUE RIDGE H.U.WATER R	H. U. Raw Well Water				0	0	
BLUE RIDGE WATER TREA	Treated Well Water	18	185	2	5	6	10%
BLUE RIDGE H.U.WATER T BLUEBERRY MOUNTAIN WA	H. U. Treated Well Water Raw Well Water	8	12	5	3	3	12%
BLUESKY WATER RAW SUR	Raw Surface Water	148	256	85	2	2	40%
BLUESKY WATER TREATED BLUESKY H.U.WATER TREA	Treated Surface Water H. U. Treated Surface Water	91	609	14	7	7	19%
BONANZA WATER RAW SUR	Raw Surface Water				0	0	
BOYLE WATER RAW SURFAC	Raw Surface Water	176			1	1	55%
BOYLE WATER TREATED BROWNVALE WATER RAW W	Treated Surface Water Raw Well Water	168	189	149	3	3	51% 52%
BROWNVALE HU.WATER RA	H. U. Raw Well Water	100			0	0	
BROWNVALE WATER TREAT	Treated Well Water	284	1047	77	3	4	80%
BRULE H.U.WATER RAW SU BRULE WATER RAW WELL	H.U. Raw Surface Water Raw Well Water				0	0	
BRULE WATER TREATED	Treated Well Water	163			1	1	65%
BRULE WATER TREATED	Treated Surface Water Raw Surface Water	214	247	185	2	2	65%
BUFFALO HEAD PRAIRIE W BUFFALO HEAD PRAIRIE	Kaw Surface Water Treated Surface Water	144			1	1	42%
BUFFALO HEAD PRAIRIE W	H. U. Treated Surface Water				0	0	
CADOMIN WATER RAW WEL	Raw Well Water Raw Surface Water	164			0	0	49%
CADOTTE LAKE WATER RAW CADOTTE LAKE WATER RA	Raw Well Water	104			0	0	4778
CADOTTE LAKE WATER TR	Treated Well Water	164			1	1	66%
CADOTTE LAKE WATER TR CALLING LAKE WATER RAW	Treated Surface Water Raw Surface Water	152	163	141	2	2	45%
CALLING LAKE WATER RA	Raw Well Water	100			ō	o	
CALLING LAKE WATER TR	Treated Well Water	94	122	72	2	2	49%
CALLING LAKE WATER TR CANYON CREEK WATER RA	Treated Surface Water Raw Surface Water	71	105	49	3	3	10%
CANYON CREEK WATER TR	Treated Surface Water	155	277	87	3	3	46%
CARSON-PEGASUS PROV.PK	Raw Surface Water				0	0	
CARSON-PEGASUS PROV.PK CLAIRMONT WATER RAW W	Treated Surface Water Raw Well Water	9			0	0 2	2%
CLAIRMONT H.U. WATER RA	H. U. Raw Well Water				0	0	
CLAIRMONT WATER TREAT	Treated Well Water Raw Surface Water	8 196	225	170	1 2	2 2	3%
CLEARDALE WATER RAW S CLEARDALE WATER TREAT	Treated Surface Water	211	257	170	2	2	64% 63%
CLEARDALE H.U.WATER TR	H. U. Treated Surface Water	1000			0	0	
COLINTON WATER RAW WE	Ranw Well Water H. U. Ranw Well Water	186	188	185	0 2	0 2	76%
COLINTON HLU.WATER TREATE	Trested Well Water	148	211	104	14	14	63%
COLINTON H.U.WATER TRE	H. U. Treated Well Water	178			1	1	79%
CONKLIN WATER RAW WEL	Raw Well Water Treated Well Water	81			0	0	44%
CROOKED CREEK WATER R	Raw Well Water				0	0	
CROOKED CREEK H.U.WATE	H. U. Raw Well Water	107		-	1	1	65%
CROOKED CREEK WATER T CROSS LAKE PROVINCIAL	Treated Well Water Raw Well Water	91	108	77	2	2	48%
CROSS LAKE PROV PK HU	H. U. Raw Well Water				0	0	
CYNTHIA WATER RAW WELL	Raw Well Water				0	D	
CYNTHIA WATER TREATED DAISHOWA CAMP WATER RA	Treated Well Water Raw Surface Water				0	0	
DAISHOWA CAMP WATER TR	Treated Surface Water				0	0	
DEADWOOD WATER RAW SU	Raw Surface Water				0	0	

STATION	TYPE		UPPER	LOWER	ss (mg/L)	# SAMPLES	PERCENTIL
		MEAN	95% LIMIT	95% LIMIT	>MID	TAKEN	WITHIN
DEADWOOD WATER TREATED	Treated Well Water				0	0	
DEADWOOD WATER TREATE	Treated Surface Water	424			1	1	92%
DEBOLT HU.WATER RAW WELL	Rasw Well Water H. U. Rasw Well Water	5			1	1	3%
DEBOLT WATER TREATED	Treated Well Water	39	144	11	6	7	24%
DEBOLT H.U.WATER TREAT	H. U. Treated Well Water	31			1	1	38%
DEER HILL WATER RAW W	Raw Well Water	585			1	1	83%
DEER HILL H.U.WATER RA DEER HILL WATER TREAT	H. U. Raw Well Water Treated Well Water				0	0	
DEMMITT WATER RAW WELL	Raw Well Water				0	o	
DESMARAIS WATER RAW S	Raw Surface Water	113			1	1	20%
DESMARAIS WATER TREAT	Treated Surface Water	105	179	62	4	4	2.5%
DEXONVILLE WATER RAW DEXONVILLE WATER TREA	Raw Well Water Treated Well Water	334 309			1	1	71%
DONNELLY WATER RAW SU	Rew Surface Water	309			0	0	0170
DONNELLY WATER TREATE	Treated Surface Water	443	591	333	5	5	93%
DR.MARY JACKSON SCHOOL	Ranw Well Water	274			1	1	66%
DR.MARY JACKSON SCHOOL	Treated Well Water	274			1	1	79%
EAGLESHAM WATER RAW S	Raw Surface Water Treated Surface Water	205 231	313	134	2 4	2 4	68%
EAGLESHAM WATER TREAT EAST PRAIRIE WATER RAW	Rew Surface Water	231	339	14-8	0	0	8376
EAST PRAIRIE WATER RAW	Raw Well Water				0	0	
EAST PRAIRIE WATER TRE	Treated Well Water				0	0	
EDSON HLU.WATER RAW SU	H.U. Raw Surface Water				0	0	
EDSON WATER RAW SURFAC	Raw Surface Water Raw Well Water				0	0	-
EDSON WATER RAW WELL EDSON H.U.WATER RAW WE	Raw Well Water H. U. Raw Well Water	75	589	10	9	9	30%
EDSON HLU. WATER TREATED	Treated Well Water	41			1	1	25%
EDSON WATER TREATED	Treated Surface Water	78	282	22	18	18	13%
EDSON H.U.WATER TREATE	H. U. Treated Well Water				0	0	
ELDOE'S MOBILE HOME P	Raw Well Water				0	0	
ELDOE'S MOBILE HOME P ELDOE'S MOBILE HOME PK	Treated Well Water H. U. Treated Well Water	11			1	1	5%
ELDOE'S MOBILE HOME PK ENTRANCE WATER RAW SU	Raw Surface Water				0	0	
ENTRANCE HU.WATER RAW	H. U. Raw Well Water				0	0	
ENTWISTLE WATER RAW W	Raw Well Water	335			1	1	71%
ENTWISTLE WATER TREAT	Treated Well Water	304	606	153	6	6	81%
ENTWISTLE H.U.WATER TR EUREKA RIVER WATER RA	H. U. Treated Well Water Raw Well Water	933			0	0	90%
EUREKA RIVER WATER H.U	H. U. Raw Well Water	933			0	0	3076
EUREKA RIVER WATER TR	Treated Well Water				0	0	
EVANSBURG WATER RAW W	Raw Well Water				0	0	
EVANSBURG WATER TREAT	Treated Well Water	189			1	1	70%
EVERGREEN MOBILE HOME FAIRVIEW H.U.WATER RAW	Raw Well Water H.U. Raw Surface Water	110	124	99	0 2	0 2	17%
FAIRVIEW HLU. WATER RAW SU	Raw Surface Water	199	326	122	14	14	66%
FAIRVIEW WATER RAW WE	Raw Well Water	212	373	121	2	2	59%
FAIRVIEW WATER TREATE	Treated Well Water	209	389	112	8		72%
FAIRVIEW WATER TREATE	Treated Surface Water	230	341	156	10	10	69%
FAIRVIEW HLU.WATER TRE	H. U. Treated Well Water	148	299	73	2	2	75%
FALHER H.U.WATER RAW S FALHER WATER RAW SURF	H.U. Raw Surface Water Raw Surface Water	233 316	277 371	196 269	2 4	2 4	68% 92%
FALHER WATER RAW WELL	Raw Well Water	510			0	0	
FALHER WATER TREATED	Treated Well Water				0	0	
FALHER WATER TREATED	Treated Surface Water	312	305	193	5	5	83%
FALHER H.U.WATER TREAT	H. U. Treated Well Water	234	340	162	2	2	84%
FAUST WATER RAW SURFA	Raw Surface Water Treated Surface Water	87 96	111	#3	1 3	1 3	8% 21%
FAWCETT WATER RAW WEL	Raw Well Water	257			ĩ	1	64%
FAWCETT HU.WATER RAW	H. U. Raw Well Water	114	129	101	2	2	66%
FAWCETT WATER TREATED	Treated Well Water	154	215	111	3	3	64%
FAWCETT H.U. WATER TREA	H. U. Treated Well Water	121	136	108	2	2	71%
LATBUSH WATER RAW WE	Raw Well Water Treated Well Water	7			0	0	2%
FLATBUSH H.U.WATER TRE	H. U. Treated Well Water	7			i	i	10%
FOOTNER LAKE WATER RA	Raw Surface Water	314			1	1	92%
FOOTNER LAKE WATER TR	Treated Surface Water	265	273	257	2	2	76%
FORT ASSINIBOINE WATE	Raw Well Water		100	-	0	0	
FORT ASSINIBOINE H.U.W FORT ASSINIBOINE WATE	H. U. Raw Well Water Treated Well Water	437 303	491	389 178	2 4	2	82%
FORT CHIPEWYAN WATER	Raw Surface Water	56	178	18	2	2	1%
FORT CHIPEWYAN WATER	Treated Surface Water	60	127	28	6	6	6%
FORT MACKAY WATER RAW	Raw Surface Water				0	0	
FORT MACKAY WATER TRE	Treated Surface Water	122	207	72	4	5	33%
FORT MCMURRAY RAW SUR FORT MCMURRAY AIRPORT	Raw Surface Water Raw Well Water	139 263	233	83	21 1	21 1	35%
FORT MCMURRAY AIRPORT	Raw Well Water Treated Well Water	122	323	46	28	28	57%
ORT MCMURRAY TREATED	Treated Surface Water	133	220	81	5	5	37%
FORT VERMILION WATER	Raw Surface Water	113	126	101	4	4	20%
ORT VERMILION WATER	Treated Surface Water	119	159	89	7	7	31%
FORT VERMILION H.U.WAT	H. U. Treated Surface Water Raw Well Water				0	0	
OX CREEK WATER RAW W	Raw Well Water				0	0	
OX CREEK WATER TREAT	Treated Well Water	94	1275	7	6	7	49%
FOX LAKE WATER TREATE	Treated Well Water	250			1	1	77%
FOX CREEK H.U. WATER TR	H. U. Treated Well Water				0	0	
GARDEN RIVER COMMUNIT	Raw Well Water	149			0	0	35%
SIFT LAKE HU.WATER RA	H.U. Raw Surface Water Raw Surface Water	149	190	104	1 3	1 3	35%
	Treated Surface Water	131	166	103		8	36%
					1	1	51%
GIFT LAKE WATER TREAT	H. U. Treated Surface Water	183			1	1	21%
GIFT LAKE WATER RAW S GIFT LAKE WATER TREAT GIFT LAKE H.U.WATER TR GIROUXVILLE WATER RAW	H. U. Treated Surface Water Raw Surface Water	324	452	232	3	3	93%
GIFT LAKE WATER TREAT GIFT LAKE H.U.WATER TR	H. U. Treated Surface Water		452 473 213	232 253 145			

STATION	TYPE	MEAN	UPPER 95%	LOWER 95%	ss (mg/L) SAMPLES >MLD	# SAMPLES TAKEN	PERCENTILI WITHIN
GRANDE CACHE WATER TR	Treated Surface Water	172	LIMIT 185	LIMIT	3	3	GROUP
GRANDE PRAIRIE WATER	Treated Surface Water	172	237	159	23	23	53%
GRANDE PRAIRIE H.U. WAT	H. U. Treated Surface Water				0	0	
GRASSLAND WATER HURA	H.U. Raw Surface Water	438	879	218	4	4	95%
GRASSLAND WATER RAWS	Raw Surface Water	275	485	156	5	5	87%
GRASSLAND WATER RAW W	Raw Well Water				0	o	
GRASSLAND H.U.WATER RA	H. U. Raw Well Water				0	0	
GRASSLAND WATER TREAT	Treated Well Water	303	326	282	2	2	81%
GRASSLAND WATER TREAT	Treated Surface Water	138	212	90	4	4	40%
GRASSLAND WATER H.U. T GREGOIRE LAKE PROVINC	H. U. Treated Well Water Raw Surface Water	432	754	247	4	4	91%
GREGOIRE LAKE PROVINC	Treated Surface Water	59			1	1	9%
GRIFFIN CREEK WATER R	Raw Well Water	352	354	351	2	2	72%
GRIFFIN CREEK HU.WATE	H. U. Raw Well Water				ō	ō	10.10
GRIFFIN CREEK WATER T	Treated Well Water	328	444	242	2	2	\$3%
GRIMSHAW WATER	Raw Surface Water	204	261	160	2	2	68%
GRINSHAW WATER RAW WE	Raw Well Water	320			1	1	70%
GRIMSHAW WATER TREATE	Treated Well Water	325	339	311	2	2	82%
GRIMSHAW WATER TREATE	Treated Surface Water	264	272	258	2	2	76%
GROUARD WATER RAW SUR	Raw Surface Water	189	464	77	3	3	61%
GROUARD WATER TREATED	Treated Surface Water	192	392	94	9	9	59%
GROVEDALE H.U. WATER RA	H. U. Raw Well Water				0	D	
GROVEDALE WATER TREAT	Treated Well Water				0	0	
GUY WATER RAW SURFACE	Raw Surface Water				0	0	
GUY WATER TREATED	Treated Surface Water	286	1104	76	5	5	80%
GUY HU. WATER TREATEDH	H. U. Treated Surface Water				0	0	
HAWK HILLS WATER RAW	Raw Surface Water		230		0	0	1.00
HAWK HILLS WATER TREA	Treated Surface Water	447	3453	58	2	2	93%
HAWK HILLS H.U.WATER T	H. U. Treated Surface Water	100			0	0	
HIGH PRAIRIE WATER RA	Raw Surface Water	199	341	117	3	3	66%
HIGH PRAIRIE AIRPORT	Raw Surface Water Raw Surface Water			101	0	0	-
HIGH LEVEL WATER RAW		240	298	194	4	4	79%
HIGH PRAIRIE WATER RA	Raw Well Water Treated Well Water	156	189	133	1 7	1 7	50%
HIGH PRAIRIE AIRPORT	Treated Well Water	139	163	133	0	ó	65%
HIGH PRAIRIE WATER TR	Treated Surface Water	163	190	140	2	2	49%
HIGH LEVEL WATER TREA	Treated Surface Water	160	2435	11	7	7	48%
HIGH LEVEL H.U. WATER T	H. U. Trented Surface Water	268			1	1	86%
HILLARDS BAY PROVINC	Raw Well Water	712			î	1	86%
HILLIARDS BAY PROV.PK.	H. U. Raw Well Water				0	0	
ELLIARDS BAY PROVINC	Treated Well Water	678			1	1	93%
ILLIARDS BAY PROV.PK.	H. U. Treated Well Water				0	0	
ELLPARK MOBILE HOME	Raw Well Water				0	0	
ELLTOP ESTATES WATER	Raw Well Water				0	0	
HILTOP ESTATES TREAT	Treated Well Water	216			1	1	73%
IINES CREEK WATER RAW	Raw Surface Water	213	414	110	4	4	71%
INES CREEK WATER TRE	Treated Surface Water	211	342	130	7	7	64%
INES CREEK WATER H.U.	H. U. Treated Surface Water				0	0	
ENTON WATER RAW SURF	Raw Surface Water Treated Surface Water	114			1	1	21%
ENTON HU.WATER TREAT	H. U. Treated Surface Water	139	167	116	4	4	40%
OTCHKISS WATER RAW S	Raw Surface Water				0	0	
OTCHKISS WATER TREAT	Treated Surface Water	661			1	1	98%
TYTHE WATER RAW WELL	Raw Well Water	7			i	3	1%
TTHE H.U.WATER RAW WE	H. U. Raw Well Water				0	0	
TYTHE WATER TREATED	Treated Well Water	10			1	2	4%
ANVIER WATER RAW SUR	Raw Surface Water	201			1	1	66%
ANVIER WATER TREATED	Treated Surface Water	164	288	94	2	2	50%
ARVIE WATER RAW WELL	Raw Well Water	215			1	L	59%
ARVIE H.U. WATER RAW W	H. U. Raw Well Water	209			1	1	78%
ARVIE WATER TREATED	Treated Well Water	134	461	39	4	4	60%
ARVIE H.U. WATER TREAT	H. U. Treated Well Water	201			1	1	81%
ASPER WATER RAW WELL	Raw Well Water				0	0	
ASPER WATER TREATED	Treated Well Water	124			1	1	57%
ASPER HU.WATER TREAT	H. U. Treated Well Water				0	0	
EAN COTE WATER RAWS	Raw Surface Water	107			0	0	
EAN COTE WATER TREAT EAN COTE H.U.WATER TR	Treated Surface Water H. U. Treated Surface Water	127	316	51	7	7	35%
OUSSARD WATER RAW SU	Rew Surface Water	106			1	0	17%
OUSSARD WATER TREATE	Treated Surface Water	88	132	58	4	4	17%
EG RIVER WATER RAW SU	Raw Surface Water	361			1	i	96%
EG RIVER WATER RAW W	Raw Well Water				o	o	
EG RIVER WATER TREAT	Treated Well Water	475	1060	213	2	2	29%
EG RIVER WATER TREAT	Treated Surface Water	170	634	44	3	3	52%
EG RIVER H.U.WATER TR	H. U. Treated Well Water				0	0	
INUSO WATER RAW SURF	Raw Surface Water	105	124	88	3	3	16%
INUSO WATER TREATED	Treated Surface Water	94	255	35	5	5	20%
INUSO H.U. WATER TREAT	H. U. Treated Surface Water	113			1	1	10%
A CRETE HU.WATER TRE	H. U. Treased Well Water				0	0	
A CRETE WATER HURAW	H. U. Raw Well Water	110			0	0	
A CRETE WATER RAW SU	Raw Surface Water	339	604	~	1	1	94%
A CRETE WATER RAW WE A CRETE WATER TREATE	Raw Well Water Treated Well Water	262	694 202	99 104	3	3	65%
A CRETE WATER TREATE	Treated Surface Water	239	202	104	1	5	62% 71%
A GLACE WATER RAW WE	Raw Well Water				0	0	1170
A GLACE WATER TREATE	Treated Well Water				0	0	
AC LA BICHE H.U. WATER	HU. Raw Surface Water	164			1	1	42%
AC LA BICHE H.U. WATER	H. U. Treated Well Water	155	156	153	2	2	76%
	Raw Surface Water	121	161	91	2	2	25%
AC LA BICHE WATER RA	Raw Well Water				0	0	
AC LA BICHE WATER RA AC LA BICHE WATER RA	FURNY WELL WENCE						and a state of the state of the
AC LA BICHE WATER RA AC LA BICHE WATER TR	Treated Well Water	162			1	1	65%
AC LA BICHE WATER RA AC LA BICHE WATER TR AC LA BICHE WATER TR	Treated Well Water Treated Surface Water	162 123	170	88	1 2	1 2	65% 33%
	Treated Well Water		170 4876	88 E		-	

STATION	туре	MEAN	UPPER 95% LIMIT	LOWER 95% LINIT	ss (mg/L) samples >MLD	* SAMPLES TAKEN	PERCENTE WITHEN GROUP
LINARIA WATER RAW WEL	Raw Well Water		LIMII	Linell	0	0	GROUP
ITTLE BUFFALO WATER	Raw Surface Water	279	433	179	5	5	87%
LITTLE BUFFALO WATER	Treated Surface Water	275	509	149	8	8	78%
LODGEPOLE H.U.WATER RA	H. U. Raw Well Water				0	0	
LODGEPOLE WATER TREAT	Treated Well Water				0	0	
LOON LAKE WATER RAW S LOON LAKE WATER TREAT	Raw Surface Water Treated Surface Water	316 282	496 423	202	2 9	2 9	92% 79%
MANNING WATER RAW SUR	Rew Surface Water	175	318	96	3	3	55%
MANNING WATER TREATED	Treated Surface Water	239	878	65	11	11	71%
MANNING EAST WATER TR	Treated Surface Water				0	0	
MANOLA WATER RAW WELL	Raw Well Water				0	0	
MANOLA WATER TREATED	Treated Well Water	16	55	5	5	5	3%
MANOLA HU.WATER TREAT	H. U. Treated Well Water				0	0	
MARIE-REINE WATER RAW	Raw Surface Water				0	0	
MARIE-REINE WATER TRE	Treated Surface Water	193	643	58	2	2	59%
MARLBORO WATER RAW WEL	Raw Well Water				0	0	
MARLBORO H.U. WATER RAW	H. U. Rasw Well Water				0	0	
MARLBORO WATER TREATED	Treated Well Water	259	0.1		1	1	77%
MAYERTHORPE WATER RAW	Raw Well Water	64	75	55	2	Z	26%
MAYERTHORPE WATER TRE	Treated Well Water	102	190	55	4	4	51%
MAYERTHORPE H.U.WATER	H. U. Trented Well Water				0	0	
MCINNIS WATER RAW WELL	Raw Well Water	381			1	1	74%
MCINNIS H.U.WATER RAW	H. U. Raw Well Water				0	0	
MCLENNAN WATER RAW SU	Raw Surface Water	230	941	56	2	2	76%
MCLENNAN WATER TREATE	Treated Surface Water	246	696	87	7	7	73%
MEANDER RIVER WATER R MEANDER RIVER WATER R	Raw Surface Water Raw Well Water				0	0	
MEANDER RIVER WATER R	Raw Well Water Treated Well Water	308			1	0	\$1%
MEANDER RIVER WATER T	Treated Well Water Raw Surface Water	306			1	0	6176
MITSUE WATER TREATED	Treated Surface Water	81			1	1	14%
MOONSHINE LAKE PROV PK	HU. Raw Surface Water	313			1	1	85%
MOONSHINE LAKE PROV.PK	Raw Surface Water	213			0	0	6.776
MOONSHINE LAKE PROVINC	Treated Surface Water				0	0	
MOONSHINE LAKE PROV PK	H. U. Treated Surface Water	228			1	1	74%
NAMPA WATER RAW SURFA	Raw Surface Water	263	538	129	3	3	84%
NAMPA WATER TREATED	Trented Surface Water	249	651	95	7	7	73%
NEERLANDIA WATER RAWS	Raw Surface Water				0	0	
NEERLANDIA WATER RAW	Raw Well Water				0	0	
NEERLANDIA WATER TREAT	Treated Well Water	196			1	1	70%
NEERLANDIA WATER TREA	Treated Surface Water	12	55	3	10	11	0%
NEERLANDIA H.U. WATER T	H. U. Treated Well Water	184			1	1	79%
NEW FISH CREEK WATER	Raw Well Water				0	0	
NEW FISH CREEK WATER	Treated Well Water	8			1	3	3%
NEW FISH CREEK H.U.WAT	H. U. Treated Well Water	7			1	1	10%
NOTIKEWIN PROVINCIAL	Raw Surface Water				0	0	
NOTIKEWIN PROVINCIAL	Raw Well Water				0	0	
NOTIKEWIN PROVINCIAL P	Treated Well Water				0	0	
PADDLE PRAIRIE H.U.WAT	H.U. Raw Surface Water	293	3.00		1	1	82%
PADDLE PRAIRIE WATER	Raw Surface Water Raw Well Water	167	197	141	2	2	51%
PADDLE PRAIRIE WATER	Raw Well Water Treated Well Water	217	457	103	0	0 2	-
PADDLE PRAIRIE WATER	Treated Surface Water	264	450	155	3	3	73%
PEACE RIVER HU.WATER	HU. Raw Surface Water	204	430	155	0	0	1076
PEACE RIVER CORRECTIO	Rew Surface Water				0	0	
PEACE RIVER WATER RAW	Rew Surface Water	133	262	67	16	16	32%
PEACE RIVER A.P.WATER	Raw Well Water	135			0	0	36/6
PEACE POINT WATER TRE	Treated Well Water				0	0	
PEACE RIVER A.P.TRUCKE	Treated Well Water				0	0	
PEACE RIVER AIRPORT TR	Treated Well Water	396			1	1	36%
PEACE RIVER CORRECTIO	Treated Surface Water	102			1	1	24%
PEACE RIVER WATER TRE	Treated Surface Water	122	213	70	18	19	33%
EACE RIVER HU.WATER	H. U. Treated Surface Water		200		0	0	
PEERLESS LAKE WATER R	Raw Surface Water	96			2	2	12%
PEERLESS LAKE WATER R	Raw Well Water	323			1	1	70%
EERLESS LAKE WATER T	Treated Well Water	106	114	100	2	2	53%
PEORIA WATER RAW SURF	Raw Surface Water	365			1	1	96%
EORIA WATER TREATED	Treated Surface Water	370			1	1	89%
EORIA H.U. WATER TREAT	H. U. Trented Surface Water				0	0	
BROCH WATER RAW WEL	Raw Well Water	113			1	1	41%
PIBROCH HLU.WATER RAW	H. U. Raw Well Water	5			1	1	8%
PIBROCH WATER TREATED	Treated Well Water				0	1	2000
BROCH H.U. WATER TREA	H. U. Treated Well Water	5			1	1	7%
PICKARDVILLE HU.WATER	H.U. Raw Surface Water	282			1	1	80%
PICKARDVILLE WATER RAW	Raw Surface Water				0	0	4.1
PICKARDVILLE WATER RA	Raw Well Water	179	184	175	2	2	54%
PICKARDVILLE WATER TR	Treated Well Water Treated Surface Water	214			1	1	73%
CKARDVILLE WATER TR	H. U. Trented Well Water	177 287	273	114	5	5	54%
THE SHADOWS TRAILER	Raw Well Water	46			2	2	19%
INE LANE TRAILER PAR	Raw Well Water	40			0	0	1576
INE SHADOWS TRAILER P	H. U. Raw Well Water				0	0	
INE SHADOWS ESTATES	Treated Well Water	42			1	1	25%
THE LANE TRAILER PAR	Treated Well Water	347	467	257	3	3	84%
LAMONDON WATER RAWS	Raw Surface Water	214			1	1	71%
LAMONDON WATER TREAT	Treated Surface Water	171			1	i	52%
OPLAR PLACE MOBILE H	Raw Well Water				o	0	
OPLAR PLACE MHP HU.W	H. U. Raw Well Water				0	0	
OPLAR PLACE MOBILE HO	Treated Well Water				0	o	
UEEN ELIZABETH PROVI	Raw Well Water				0	0	
UEEN ELIZABETH PROVIN	Treated Well Water				0	ő	
AINBOW LAKE WATER RA	Raw Surface Water	110	161	74	3	3	18%
AINBOW LAKE WATER TR	Treated Surface Water	113	160	79	5	5	28%
AINBOW LAKE H.U.WATER	H. U. Treated Surface Water	100		12	1	1	5%
			400	1.00			
EDEARTH WATER RAW SUR	Raw Surface Water	275	498	152	3	3	87%

				Hardnes	ss (mg/L)		
STATION	TYPE	MEAN	UPPER 95% LIMIT	LOWER 93% LIMIT	SAMPLES >MLD	# SAMPLES TAKEN	PERCENTE
REDEARTH CREEK DISTRIB	Treated Surface Water	246	Laver	LADALI	1	1	73%
REDEARTH WATER TREATED	Treated Surface Water	274	498	151	3	3	78%
REDEARTH CREEK AFS WAT	Treated Surface Water Raw Surface Water	193			1	1	59%
REINWOOD WATER TREATE	Treated Surface Water	172			1	1	53%
RIDGE VALLEY WATER RA	Raw Well Water				0	0	
RIDGE VALLEY WATER TR	Treated Well Water	9			1	2	3%
RIDGE VALLEY H.U.WATER ROBB WATER RAW WELL	H. U. Treased Well Water Raw Well Water	7			1	1	10%
ROBB WATER TREATED	Treated Well Water	6			1	2	2%
ROCHESTER WATER RAW W	Raw Well Water	391			1	1	75%
ROCKY LANE WATER RAW S	Raw Surface Water	222			1	1	74%
ROCKY LANE WATER TREAT	Treated Surface Water	310	508	189	2	2	83%
ROCKY LANE HU.WATER T ROYCE WATER RAW SURFA	H. U. Treated Surface Water Raw Surface Water				0	0	
ROYCE WATER RAW WELL	Raw Well Water				ō	0	
ROYCE WATER TREATED	Treated Well Water	355			1	1	84%
ROYCE WATER TREATED	Treated Surface Water	103			1	1	24%
ROYCE HU.WATER TREATE	H. U. Treated Well Water	309	618		0	0	
RYCROFT WATER RAW SUR RYCROFT WATER RAW WEL	Raw Surface Water Raw Well Water	1171	019	155	3	3	91% 93%
RYCROFT WATER TREATED	Treated Well Water				ō	0	
RYCROFT WATER TREATED	Treated Surface Water	396	935	168	6	6	91%
SANDY LAKE WATER RAW S	Raw Surface Water				0	0	
SANDY LAKE WATER TREAT SANGUDO WATER RAW WEL	Treated Surface Water Raw Well Water				0	0	
SANGUDO WATER TREATED	Treated Well Water	27	54	13	7	*	16%
SASKATOON ISLAND PROV	Raw Well Water				0	0	
SASKATOON ISLAND PROVI	Treated Well Water				0	0	
SEXSMITH WATER RAW WE	Raw Well Water		-		0	0	
SEXSMITH WATER TREATE	Trented Well Water Raw Surface Water	34	82 .	14	4	4	21%
SHELL PEACE RIVER INS	Treated Surface Water				0	0	
SIR WINSTON CHURCHILL	Raw Surface Water				0	0	
SIR WINSTON CHURCHILL	Treated Surface Water	124			1	2	33%
SLAVE LAKE WATER RAW	Raw Surface Water	87	109	69	5	5	8%
SLAVE LAKE WATER TREA	Treated Surface Water Raw Surface Water	85 191	100 297	73 123	7 2	7 2	16%
SMITH WATER TREATED	Treated Surface Water	189	282	125	2	2	58%
SMITH HU. WATER TREATE	H. U. Treated Surface Water	224.0			1	1	72%
SPIRIT RIVER WATER RA	Ruw Surface Water	159	182	138	4	4	46%
SPIRIT RIVER WATER TR	Treated Surface Water	161	192	135	8	8	49%
ST. ISIDORE WATER RAW	Raw Surface Water Treated Surface Water	354	493	254	0	0	\$7%
STRONG CREEK WATER RA	Raw Surface Water		435		0	0	•//10
STRONG CREEK WATER RA	Raw Well Water				0	0	
STRONG CREEK WATER TRE	Treated Well Water				0	0	
STRONG CREEK WATER TR SUNSET HOUSE WATER RAW	Treated Surface Water	652	763	557	2	2	98%
SUNSET HOUSE WATER TRE	Treated Well Water				0	0	
SUNSET HOUSE H.U.WATER	H. U. Treated Well Water	12			1	1	18%
SWAN HILLS H.U.WATER R	H.U. Raw Surface Water	76.46	84	70	2	2	5%
SWAN HILLS WATER RAW	Raw Surface Water	48	56	42	2	2	0%
SWAN HILLS WATER RAW	Raw Well Water				0	0	
SWAN HILLS WATER TREA	Treated Well Water	54	79	37	3	3	32%
WAN CITY MOBILE HOME	Treated Well Water	11			1	1	5%
SWAN HILLS WATER TREA	Treated Surface Water	58	526	6	10	14	6%
SWAN HILLS H.U.WATER T	H. U. Treated Well Water	77	88	68	2	2	61%
SWEATHOUSE CWP WATER	Raw Well Water H. U. Raw Well Water				0	0	
WEATHOUSE WATER TREA	Treated Well Water	37	43	32	2	2	23%
A E MOBILE HOME PAR	Raw Well Water				0	1	
T & E MOBILE HOME PAR	Treated Well Water				0	0	
TA E MOBILE HOME PARK	H. U. Trested Well Water	100			0	0	
TANGENT WATER RAW SUR	Raw Surface Water Treated Surface Water	189 186			1	1	61% 57%
TANGENT HU.WATER TREA	H. U. Treated Surface Water				0	0	3176
TEEPEE CREEK WATER TR	Treated Surface Water	94			1	1	20%
TOMPKINS WATER RAW SUR	Raw Surface Water				0	0	
TOMPKINS WATER RAW WEL	Raw Well Water Treated Well Water				0	0	
TOMPKINS WATER TREATED	Treated Surface Water				0	0	
TOMPKINS HU. WATER TRE	H. U. Treated Well Water				0	0	
TRIPLE L MOBILE HOME	Raw Well Water	7			1	2	1%
TRIPLE L MOBILE HOME TROUT LAKE WATER RAW S	Treated Well Water Raw Surface Water	10	23	4	7	9	4%
TROUT LAKE WATER RAW	Raw Well Water				0	0	
ROUT LAKE WATER TREA	Treated Well Water	503			1	1	90%
ALLEYVIEW HU. WATER R	H.U. Raw Surface Water	85	148	49	6	6	7%
ALLEYVIEW WATER RAW	Raw Surface Water	109	112	106	2	2	18%
VALLEYVIEW WATER TREA	Treated Surface Water	128	230	71	4	1	35%
WABASCA WATER RAW SUR	H. U. Treated Surface Water Raw Surface Water	132 100	137 246	128 41	2 4	2	19%
WABASCA WATER TREATED	Treated Surface Water	103	195	55	6	6	24%
WANDERING RIVER WATER	Raw Surface Water	61	122	30	3	3	1%
WANDERING RIVER WATER	Treated Surface Water	72	111	47	5	5	11%
WANHAM WATER RAW SURF	Raw Surface Water	258	407	163	6	6	83%
WANHAM HU.WATER TREAT	Treated Surface Water H. U. Treated Surface Water	242 289	480 306	122 273	8	8 2	72%
WARRENSVILLE WATER RA	Raw Well Water				0	0	1070
WARRENSVILLE H.U. WATER	H. U. Raw Well Water				D	0	
WARRENSVILLE WATER TR	Treated Well Water				0	0	
VATINO WATER RAW WELL	Raw Well Water				0	0	

				Hardnes	ss (mg/L)		
STATION	TYPE	MEAN	UPPER 95% LIMIT	LOWER 95% LIMIT	SAMPLES >MILD	# SAMPLES TAKEN	PERCENTILI WITHIN GROUP
WEBERVILLE WATER RAW	Raw Well Water	291	439	193	3	3	67%
WEBERVILLE WATER TREA	Treated Well Water	306			1	1	\$1%
WEMBLEY WATER RAW WEL	Raw Well Water	13			1	1	4%
WEMBLEY HU.WATER RAW	H. U. Rasw Well Water	18			1	1	26%
WEMBLEY WATER TREATED	Treated Well Water	12	20	7	18	18	5%
WEMBLEY HU. WATER TREA	H. U. Treated Well Water	22			1	1	30%
WEST VALE WATER RAW W	Raw Well Water				0	0	
WEST VALE WATER TREAT	Treated Well Water				0	0	
WESTLOCK HU.WATER RAW	HU. Raw Surface Water	214	376	121	3	3	62%
WESTLOCK WATER RAW SU	Raw Surface Water	156	218	112	5	5	45%
WESTLOCK WATER TREATE	Treated Surface Water	104	717	15	5	5	25%
WESTLOCK HU.WATER TRE	H. U. Treated Surface Water	216	379	124	3	3	69%
WESTVIEW MOBILE VILLA	Raw Well Water				0	0	
WHITECOURT WATER RAW	Raw Surface Water	143	289	71	3	3	37%
WHITECOURT WATER TREA	Treated Surface Water	191	284	128	6	6	39%
WHITECOURT H.U. WATER T	H. U. Treated Surface Water				0	0	
WHITELAW WATER RAW SU	Raw Surface Water				0	0	
WHITELAW WATER RAW WE	Raw Well Water	242			1	1	62%
WHITELAW SPRING WATER	Raw Well Water				0	0	
WHITELAW SPRING WATER	H. U. Raw Well Water				0	0	
WHITELAW WATER TREATE	Treated Well Water	230	254	208	4	4	75%
WHITELAW SPRING WATER	Treated Well Water				0	0	
WHITELAW WATER TREATE	Treated Surface Water	242	375	157	6	6	72%
WHITELAW HU.WATER TRE	H. U. Treated Well Water				0	0	
WHITEMUD CREEK WATER R	Raw Serface Water				0	0	
WHITEMUD CREEK WATER	Treated Surface Water	298	440	201	5	5	81%
WILDWOOD WATER RAW WE	Rew Well Water				0	0	
WILDWOOD HU.WATER RAW	H. U. Raw Well Water				0	0	
WILDWOOD WATER TREATE	Treated Well Water				0	0	
WILLIAM A SWITZER PROV	Raw Well Water				0	0	
WILLIAMSON PROVINCIAL	Raw Well Water	10	12	9	2	2	3%
WILLIAMSON PROVINCIAL	Tranted Well Water	66			1	ī	38%
WINAGAMI LAKE PROV PK	Rew Surface Water				0	0	
WINAGAMI LAKE PROVINC	Raw Well Water				0	0	
WINAGAMI LAKE PROVINCI	Treated Well Water				0	0	
WOKING WATER RAW SURF	Raw Surface Water	179	280	114	4		57%
WOKING WATER TREATED	Treated Surface Water	206	396	107	5	5	63%
WORSLEY WATER RAW SUR	Raw Surface Water	117	1030	13	3	3	23%
WORSLEY WATER TREATED	Trested Surface Water	143	4057	5	5	6	41%
WORSLEY HU.WATER TREA	H. U. Trented Surface Water	145			0	0	
YOUNG'S POINT PROVINC	Raw Well Water				0	0	
YOUNG'S POINT PROVINC	Treated Well Water				0	0	
ZAMA CITY WATER RAW W	Raw Well Water	559	890	351	5	5	82%
ZAMA CITY HU. WATER RA	H. U. Raw Well Water	200			0	0	
ZAMA CITY WATER TREAT	Treated Well Water	378	3347	43	2	2	85%
CARA CITT WATER TREAT	H. U. Treated Well Water	3/0	3347	43	0	2	6376

	1
1995	
Prince et al.	· · · · · · · · · · · · · · · · · · ·
from 1	1000 1000
Information	Card and all
acility 1	
ofF	TANK NAMES IN
Listing	THE R. P. LEWIS CO., LANSING
Table A-3: ]	TAATS PINE

Image         change         change <thcan< th="">         change         change <thchange< th=""> <thchange< <="" th=""><th></th><th>SIVIUS</th><th>STATUS POPULATION</th><th></th><th>96 Pop. TVPE</th><th>SOURCE</th><th>RAW STORA TREATED ST</th><th>EATED ST</th><th>TREATMENT</th><th>LAT</th><th>TONO</th><th>SURVEY</th><th>RAW</th><th>VISIT</th></thchange<></thchange<></thcan<>		SIVIUS	STATUS POPULATION		96 Pop. TVPE	SOURCE	RAW STORA TREATED ST	EATED ST	TREATMENT	LAT	TONO	SURVEY	RAW	VISIT
1         101         0.10         3.40000         1.00000         4.0000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.40000         3.400000         3.40000         3.40000 <th></th> <th></th> <th></th> <th>chan</th> <th>98</th> <th></th> <th>m,</th> <th>"m</th> <th></th> <th></th> <th></th> <th>SAMPLES</th> <th>SAMPLES</th> <th>FLANNEL</th>				chan	98		m,	"m				SAMPLES	SAMPLES	FLANNEL
1         0.1         3         Moneutism         0.1         3         Moneutism         1         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.10         0.1	ANZAC	H	163		S				Cg/CgA/Fic/Sd/RSflvNaOCI/TWR	56.450000	111 033333	×		
1         1         1         2         2         Control         2         Control         2         Control         Contro         Control	THABASCA	L	1975	-0.3		Athabasca River		7092	Cg/CgA/pH/Sd/RSfl/AC/Flu/CL2/TWR	54.733333	113.250000	×	×	×
1         0.01         5         5. Mob finet         0.001         0.011         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110	ATTKAMEG SCHOOL	-	0		S	Whitefish Band WTP			Prov for chlor/TWR	55.93333	115.650000			
No.         Subtraction         200         Control         200         Control         Contro         Control         Contro<	BARRHEAD	-	4014	4.2%		Paddle River	363636	45454	RWR/Aer/Ca/Clr/Rflt/Hu/PPCI2/TWR	54.133333	114.400000	×		x
1         0.0         1.0         0.0         0.0         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00 </td <td>BEAR CANYON</td> <td>WP</td> <td>VN</td> <td></td> <td></td> <td>Surface runoff</td> <td>2700</td> <td></td> <td>Iron Removal. P. Filt.</td> <td>56.183333</td> <td>119.816667</td> <td>4</td> <td></td> <td></td>	BEAR CANYON	WP	VN			Surface runoff	2700		Iron Removal. P. Filt.	56.183333	119.816667	4		
1         1.01         1.03         3         Immode blue         000         001         000         001         000         001         000         001         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         0	<b>CANYON SCHO</b>	50	0		<i>6</i> .	Bear Canyon WP			RWR/GsflvPPNaOCI					
N         10,1         0,10,1         0,10,1         0,10,0         1,10,0         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00         1,10,00 <td>BEAVERLODGE</td> <td>1</td> <td>1808</td> <td>-1.6</td> <td></td> <td>Beavorlodge River</td> <td>606069</td> <td>3405</td> <td>RWR/TWR/Aer/Cg/DH/Clr/RflVCl2</td> <td>55.216667</td> <td>119.433333</td> <td>×</td> <td></td> <td></td>	BEAVERLODGE	1	1808	-1.6		Beavorlodge River	606069	3405	RWR/TWR/Aer/Cg/DH/Clr/RflVCl2	55.216667	119.433333	×		
1         2         1         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2	RWYN	>	606	-12.1	÷.	)		1001	Stor	56.150000	117.73333	×		×
1         1         1         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2	NOSNAS	H	62		Ĩ			41	IN	FFFFFC 22	118 766667			
1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1	ZANSON	0			Ð				······································	LEELEC 55	118 766667			
I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I	ZANSON SCHOOL	50	c		0					LELLE SS	LYNYYYL NIL			
10         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100	SHOP ROUTHIER(PI	50 (1)	0		0	Hauled From Peavine WIP								
1         1         1         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0	UE RIDGE		260		C			205	2	LELLEI PS	115 366667	~		
1         1         0 and         0 and </td <td>UESKY</td> <td>H</td> <td>165</td> <td></td> <td>~</td> <td>Surface nmolf</td> <td>65000</td> <td>332</td> <td>RWR/Ast/R0t/MaOCI/TWR</td> <td>56 D66667</td> <td>LEELC 811</td> <td>*</td> <td></td> <td></td>	UESKY	H	165		~	Surface nmolf	65000	332	RWR/Ast/R0t/MaOCI/TWR	56 D66667	LEELC 811	*		
W         MG         MG </td <td>NANZA</td> <td>\$</td> <td>0</td> <td></td> <td>8</td> <td>Discout</td> <td></td> <td></td> <td>Cuttionn Filters</td> <td></td> <td></td> <td>¢</td> <td></td> <td></td>	NANZA	\$	0		8	Discout			Cuttionn Filters			¢		
1         1-10.         3         Substrate         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1           1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1	RGEL WHITELAW	4M	VN			ρ								
1         1         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0	VIE	>	101	100		Statem I abatranted 10031		0001	The Official A Market A	CONTRACT OF A		,		
1         2         Supply Creat(OVI 102)         2         Product Version         1         2         Product Version         1         Product Version         1         Product Version         1         Product Version         1         Product Version         Product Versin         Product Versin	DWNVALE	- =	PL.	C-1-		(766 W MOI DOWN TRIBANC		4401	1 courting up/or free sources of provident in the court in the court of the court o	SESSES.PC	100018711	×		
No.         Construction	TE		5			And White and the second				1933333	CCCC287/11			
9         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0	FALO HEAD DP AI		V N			Trace and the state		77	FILTING OCT WK	25.263333	CCCC89./ 11	×		
No.         Construction	TALO HEAD PRAI				0 0	the dark from Proven three				000000.90	100015.011			
WI         VII         Main         Ma	DOMINI					AT M GIOLOGY HIGH I DOWNELL				000000.85	110.310007			
1         10         2         Caling Lake         0         Amy Concentration Match Sector         15,5660         11,55660         11,55660         11,55660         11,55660         11,55660         11,55660         11,55660         11,55660         11,55660         12,55660         11,55660         12,55660         12,55660         11,55660         11,55660         11,55660         11,55660         12,55660         12,55660         11,55660         11,55660         12,5566         11,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660         12,55660 <th< td=""><td>DOTTE LAVE</td><td>and the second</td><td></td><td></td><td>2 (</td><td></td><td></td><td></td><td></td><td>255550.55</td><td>255555.71</td><td></td><td></td><td>3</td></th<>	DOTTE LAVE	and the second			2 (					255550.55	255555.71			3
100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100 <td>This are</td> <td></td> <td>167</td> <td></td> <td>5 0</td> <td></td> <td></td> <td>0.01</td> <td>AGT/PAC/Cg/CgApH/Clr/KSIIVPPNaOCV1WK</td> <td>26.466667</td> <td>116.366667</td> <td>1</td> <td></td> <td>×</td>	This are		167		5 0			0.01	AGT/PAC/Cg/CgApH/Clr/KSIIVPPNaOCV1WK	26.466667	116.366667	1		×
1         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3	T DIG I AVE D D	-	055		0 0	Califing Lake(upgraded 1992)		8	FI0/SQ/FIVNBUCI	55.250000	113.200000	×		
$M_1$ $M_2$ <t< td=""><td>IVON CBEEV</td><td>2 1</td><td></td><td></td><td><i>n</i> 0</td><td>Calify Lako</td><td></td><td></td><td>L.Gal.</td><td>55.216667</td><td>112.200000</td><td></td><td></td><td></td></t<>	IVON CBEEV	2 1			<i>n</i> 0	Calify Lako			L.Gal.	55.216667	112.200000			
10         10         1331667         1463333           1         10         5         Cleonyan Lake         13         1331667         1463333         X           1         10         5         Cleonyan Lake         1         Na, W.Y.         X         X         X           1         10         0         1         Na, W.Y.         Na, W.Y.         Na, W.Y.         Na         1331667         114156667         X         X         X           1         10         0         Na         Na         100         Na         100000         X         X         X         X           1         10         0         Na         10         Na         100000         X         X         X           1         10         0         Na         10         Na         1000000         X         X         X           1         10         0         Na         Na         1000000000000000000000000000000000000	SCAINT		ATA N		0 0	OVER OARN' LOSSO'	nnnnt	919	K W KUCBUCBAN KINT UN PHUCK I WK	34 366667	115,083333	×		
7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7	Settin 1	1	04		2	When we are a set of the set of t								
1         17         5         Choroyan Late         17         16000         160000         160000         160000         160000         17         160000         17         160000         17         160000         17         160000         17         160000         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17	P I AKE	<b>.</b> .			ũ	ORALLA				53.816667	114.6833333			
H         100         0         Currowneut and the Numerican and the N	DEWVANTAVE	2	141											
H         430         5         Suffice Khaoff         339         10         533333         1133333         X         X         X           H         12         0         0         NM         33333         1133333         X         X         X           1         12         0         0         NM         533333         1133333         X         X           1         1         10         Comp         113         Fore/GSINAct/TVR         533333         11333333         X         X         X           1         1         Fore/GSINAct/TVR         353333         11333333         X         X         X           1         1         Fore/GSINAct/TVR         353333         11333333         X         X           1         1         Fore/GSINAct/TVR         353333         11433333         X         X           1         1         1         N         N         353333         1141667         X         X           1         1         1         N         N         333333         11416667         X         X           1         1         1         N         N         1141667         35	SHOLM	: 3			2 0	cial powy and there		66			And a subscription of the			
M         233         5         Suffice Runoff         3900         100         Rin         533333         1133333         X           H         126         0         13         Fore/SafMAnOCITVR         533333         11333333         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X<	VIDAONT	- 2	244		5 0				Nu, w.F.	199916.00	114.10-2007	1		
WI         12         3         anterest tranol         3000         Comp.         3000         X         X           1         12         7         Prina         113         Fere CGRIMMOCTWR         5613333         11339333         X         X         X           1         1         5         13         11         Fere CGRIMMOCTWR         561333         11339333         X         X         X         X           1         13         13         13         110         Fere CGRIMMOCTWR         561333         11339333         X         X         X           1         13         14         277         NB         2733         1130833         X         X           1         13         14         NB         277         NB         134         134066         X           1         106         131         R         NA         353333         1134667         X           1         106         131         R         NA         353333         1134667         X           1         10         131         R         NA         13133         1134667         X           1         106         13	APDATE A	4	(h)		5 0	0.00 m m		606		55,266667	118.783333	×		
II         120         0         113         FreeGSIMActOTWR         566667         1132000         X           8         13         0         0         100         353333         11083333         353333         11083333         353333         11083333         353333         11083333         353333         11083333         353333         11083333         353333         11083333         353333         11083333         353333         11083333         353333         11083333         353333         11083333         353333         11083333         353333         11083333         353333         11083333         353333         11083333         353333         11083333         353333         11083333         353333         11083333         353333         11083333         353333         11083333         353333         11083333         353333         1134667         X         32333         1134667         X         353333         1134667         X         323666         1134667         X         323666         1134667         X         32316667         X         333333         11346667         X         32316667         X         33333         1134667         X         333333         11346667         X         3333333         11346667	TUTUT		9		<u>n</u> 1	SUTRCe Kimoll	00665	160	Comp.	56.333333	119.583333	×	×	
Inverting         Prove         Second	NOINT	= 3	126		Ð	44.00		115	Fo re/GSBUNaOCUTWR	54.616667	113.250000	×		×
N         133         0         133         0         133         133         135         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155         155	NITTN	= )				Frivato				55.633333	111.083333			
WP         NA         O         S15660         1136667         X           8         0         0         3140667         X           8         0         0         3140667         X           8         0         3         31333         11145000         X           8         0         3         31745000         X         314667         X           9         0         3         3000         13         14         300         55333         11145000         X           9         0         3         3000         131         RWC/C/C/MSU/O/D/PCC2         553333         11745000         X           11         310         13         N         N         13333         11745000         X           11         310         13         N         N         N         N         N         N         N           11         310         13         N         133333         11745000         X           11         11         N         N         N         133333         1134000         X           11         11         11         N         N         N         133333 </td <td>AKLIN</td> <td>2</td> <td>133</td> <td></td> <td>Ð</td> <td></td> <td></td> <td>45</td> <td>P. Filt, KMnO4, W.P.</td> <td>55.633333</td> <td>111,083333</td> <td></td> <td></td> <td></td>	AKLIN	2	133		Ð			45	P. Filt, KMnO4, W.P.	55.633333	111,083333			
H         36         0         32.38333         11541667         X           S         0         S         H from Muning or Los. WT         5573333         11541667         X           WP         NA         S         Spring         1131         NaOCI         5573333         11541667         X           WP         NA         S         Spring         13         NaOCI         553333         11740000         X           WP         NA         S         South Wabace Lake         227000         1131         RWPC9/CgA/CL/RSH/TO/pIUPPC12         5533333         11300667         X           WP         NA         G         NaGC         55.33333         11300667         X           WP         NA         NA         NA         NA         NA         55.33333         11710000         X           WP         NA         NA         NA         NA	OKED CREEK	WP	NA		Ċ				医	55.166667	117.865667			
5         0         0         0         0         5673333         1174000           WP         NA         5         Spring         174000         5673333         11745000           WP         NA         5         Spring         13         6673333         11745000           WP         NA         0         0         553333         11745000         5573333         11745000           WP         NA         0         0         131         RWR/Cy/CgA/CL/RSIV/OpI/PPCI2         5573333         11745000           WP         NA         0         0         131         RWR/Cy/CgA/CL/RSIV/OpI/PPCI2         5573333         11745000           WP         NA         0         3         Namoing or Loo. WT         Namoing or Loo. WT         S57333         11745000           WP         NA         0         3         Namoing or Loo. WT         Namoing or Loo. WT         S573333         11710000         X           WP         NA         Cycle/Cr/RSIV/Cl/DMI/PCI2         5533333         11710000         X           WP         G         MP         NA         NA         S57333         11710000         X           WP         G         N         N	VIHIA	H	36		Φ			227	叉	53,283333	115,416667	×		×
S         0         5         H from Mauring or Los. WT         5673333         11740000           WP         NA         5         Spring         1.34         56.73333         117.450000           WP         NA         G         -4.9         NaOCI         56.73333         117.450000           WP         NA         G         5.73333         117.45000         5.73333         117.45000           WP         NA         G         Na         56.53333         118.01667         X           H         310         G         Na         56.53333         118.01667         X           WP         NA         G         Na         56.53333         117.66667         X           WP         NA         G         Na         S         56.53333         117.66667         X           V         421         4.0%         S         Na         S         55.33333         117.66667         X           NA         NA         NA         NA         NA         S         53.3333         117.66667         X           V         421         4.0%         S         Na         NA         S         53.33333         117.66667         X <td>de de</td> <td></td> <td>0</td> <td></td> <td>e</td> <td>The second s</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	de de		0		e	The second s								
WP         NA         S         Spring         1.04.4         S6.73333         117.45000           H         106         G         H         NA         5         56.73333         117.45000           WP         NA         G         S         South Wabacea Lafe         227000         1131         RWCcyCgACL/RSBU/TO/p10PPC12         55.33333         118.1016671         X           H         90         G         NA         S         South Wabacea Lafe         227000         1131         RWCcyCgACL/RSBU/TO/p10PPC12         55.33333         118.1016671         X           W         NA         G         A         NB         NB         S6.33333         117.450000         X           W         NA         G         A         NB         NB         S6.33333         117.450000         X           V         421         4.0%         S         WareCyCgACL/RSBU/TO/p10PPC12         55.33333         117.160313         X           V         421         4.0%         S         WareCyCgACL/RSBU/TO/p10PPC12         55.33333         117.16050         X           V         421         4.0%         S         WareCyCgACL/RSBU/CO/CT/WR         55.733333         117.1613133         X <td>NDWOOD SCHOOL</td> <td></td> <td>0</td> <td></td> <td>s</td> <td>H from Manning or Loo. WT</td> <td></td> <td></td> <td></td> <td>56.733333</td> <td>117.450000</td> <td></td> <td></td> <td></td>	NDWOOD SCHOOL		0		s	H from Manning or Loo. WT				56.733333	117.450000			
H         106         G         41         NaOCI         55,216667         118016667         X           H         310         G         Na         55,3333         11831333         55,33333         1181016667         X           H         310         G         Na         55,3333         1131         RWR/Cg/Cg/NCL/RSII/UT/O/p1/PPCI2         55,33333         1131016667         X           H         90         G         A         Na         55,33333         1131016667         X           WP         NA         G         A         Na         S         55,33333         113106667         X           WP         NA         G         Na         Na         S         55,33333         113106667         X           WP         NA         G         Na         Na         Na         S         55,33333         117100000         X           0         G         Na         Na         Na         Na         S         53,3333         117100000         X           191         -6.6%         S         Surface runolf         82300         310         Recordit/CaC/TWR         35,733333         117,100000         X           101	ADWOOD WP	Mb	NA		ŝ	Spring			I.Gal.	56.733333	117.450000			
WP         NA         G         South Wabace Late         227000         1131         RWR/Cg/CgA/CL/RSB/T0/p1/PPC/2         56.233333         118.333333         118.333333         118.333333         118.333333         118.333333         118.333333         118.333333         118.333333         118.133333         113.1056667         X           H         90         G         43         NB         NB         56.33333         117.66667         X           W         A104         S         Wfmagani Latio via canal         82.500         330         RWR/Cg/CgA/CL/RSB/T0/p1/PPC/2         55.33333         117.100000         X           V         4104         S         S         Wfmagani Latio via canal         82.500         330         RWR/Cg/CgA/CL/RSB/T0/p1/PPC/2         55.33333         117.100000         X           0         0         0         0         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N	30LT	H	106		C			-13	NaOCI	55.216667	118 016667	x		
H         310         S. South Websee Lake         227000         1137         RWR/Cg/Cg/CLrSSIPTO/p10PPCI2         55 533333         113116667         X           H         90         G         43         N3         N3         1137         Second Seco	ER HILL	WP	<b>V</b> N		Ċ				E.	56.283333	118 333333			
H         90         G         43         Nã         55 53333         117 66667           V         421         4.0%         5         Wingani Lakovia cual         82300         530         530         53333         117 10000         X           V         421         4.0%         5         Wingani Lakovia cual         82300         530         RWR/GFR/P/IVAOCI         55 73333         117 10000         X           8         0         0         N         N         ForeGrift/CaOCITWR         55 73333         117 10000         X           0         0         0         0         N         N         ForeGrift/CaOCITWR         55 73333         117 10000         X           0         0         0         N         N         ForeGrift/CaOCITWR         55 73333         117 10000         X           0         0         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N	SMARAIS	H	350		2	South Wabasca Lake	227000	1137	RWR/Cg/CgA/Cfr/RSBI/TO/p1//PPCI2	55.93333	113 816667	×		×
WP         NA         G           V         421         4.0%         5         Wragani Lako via canal         \$2500         530         530         8.73333         117.10000         X           S         0         0         1         4.0%         5         9.73333         117.10000         X           O         1         0         6         NB         Fere/Gaft/CarOCIT/WR         55.73333         117.10000         X           V         181         -6.6%         5         Surface runoff         86000         540         RVR/Cg/Cg/V/Cr/DMB/C12         55.783333         117.109000         X           V         181         -6.6%         5         Surface runoff         86000         540         RVR/Cg/Cg/V/Cr/DMB/C12         55.783333         117.109000         X           V         181         -6.6%         5         Surface runoff         86000         540         RVR/Cg/Cg/V/Cr/DMB/C12         55.783333         117.109333         X           WP         NA         5         Surface runoff         86000         540         RVR/Cg/Cg/V/Cr/DMB/C12         55.783333         117.109333         X           MP         NA         5         Surface runoff         64.0%	ONVILLE 1	H	06		Ċ			45	更	56.533333	117.666667			
V         421         4.0%         5         Wingarii Lake via cuual         82300         330         RWR/QyTe/RSflip/tNaOCt         55.733333         117.100000         X           5         0         0         0         1         55.73333         117.100000         X           0         1         0         0         Nin         Nin         55.733333         117.100000         X           0         1         0         0         Nin         Nin         55.783333         117.100000         X           0         1         Nin         Nin         Nin         55.783333         117.100000         X           0         0         Nin         Nin         Nin         10.5         55.783333         117.100000         X           0         0         Nin         Nin         Nin         117.583333         117.169333         X           0         0         Nin         Nin         Nin         117.583333         117.583333         117.583333         117.583333         X           0         0         Nin         Nin         Nin         Nin         X         X           1         1323         0.0%         0 <t< td=""><td>ONVILLE 2</td><td>WP</td><td>NA</td><td></td><td></td><td></td><td></td><td></td><td>2</td><td></td><td></td><td></td><td></td><td></td></t<>	ONVILLE 2	WP	NA						2					
S         0         G         Fere/Gall/CalC/TWR           0         0         0         Nil         Nil           V         184         -6,6%         5         Surface numOf         86000         540         RWR/Cg/Cg/Ch/DMfl/Cl2         35.783333         117.883333         17.583333         17.583333         X           V         184         -6,6%         5         Surface numOf         86000         540         RWR/Cg/Cg/Ch/DMfl/Cl2         35.783333         117.583333         X           0         G         Nil         Nil         1.5         35.783333         117.583333         X           MP         NA         S         Surface numOff         L Gal.         51         17.583333         117.583333         X           MP         NA         S         Surface numOff         L Gal.         56         0         53.583333         116.433333         X           7         7323         0.0%         0         71115         NaOCL2/TWR         53.583333         116.433333         X	NNELLY	>	421	4.09	S		82500	330	RWR/Cg/Hc/RSIIVpIUNaOC1	\$5.733333	117.100000	x		
0         P         G         Mit	MARY JACKSON		0		Ċ				Fe re/GsflvCaOCITWR					
V         184         -6,6%         5         Starface runolf         86000         540         RWR/Cg/Cg/Ch/ID/ID/C12         55.7833333         117.883333         X           O         G         G         Nat         Sarface runolf         LGal.         53.783333         117.883333         17.583333         17.583333         17.583333         17.583333         17.583333         17.583333         16.433333         X           MP         NA         S         Sarface runolf         LGal.         Galu         53.583333         116.433333         X           T         7323         0.0%         G         7115         NaOCL2/TWR         53.583333         116.433333         X	NVEGAN PROV.RE		0						EV.					
0 G WP NA S Surface runoff LGal. MS 260 G T 7323 0.0% G 71115 NaOCL2/TWR 53.583333 116.433333 116.433333 X 8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	OLESHAM		181	-6.6		Surface runoff	86000	340	RWR/Cg/CgA/Clr/DMB/Cd2	55.783333		×		
WP NA S Surface numoif LGal. MS 260 G Galuvia CCI T 7323 0.0% G 7115 NacOCI 8 70 G 7115 NacOCI2/TWR	ST GRIMSHAW WA		:		Ċ				E.					
T 7323 0.0% C GallonacC 53.583333 116.43333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.43333 116.433333 116.43333 116.43333 116.43333 116.43333 116.43333 116.43333 116.43333 116.43333 116.43333 116.43333 116.43333 116.43333 116.43333 116.43333 116.43333 116.43333 116.43333 116.43333 116.43333 116.43333 116.43333 116.43333 116.43333 116.43333 116.43333 116.43333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.433333 116.4333333 116.433333 116.433333 116.4333333 116.4333333 116.4333333 116.43333333 116.4333333 116.433333333333333333333333333333333333	T DD AIDIT GTHE		NA		0.0	Surface runoff			I. Gal.					
1 7.2 0.07 0 7.115 NaCCL2/I WK 53.283333 116,433333 X 84 8 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	TRAINE SETTIE		007						GsIIVNBOCI					1
	ILLOUN	- 4	U	cn'n					NaOCL2/I WR	53,583333	16.433333	x		×

d.
ne
Ē.
at
0
0
ŝ
A
le
ab

	FACILITY	STATUS	STATUS POPULATION % Pop. TYPE	96 Pop.	TYPE	SOURCH	RAW STORA	TREATED ST	TREATMENT	TAT	DNOT	SURVEY RAW VISIT SAMPLES SAMPLES PLANNED	RAW	VISIT
No.         Control         Co	FNIL DA	=	801	cuango	0	Hada Draitin WITP	H	10		55 416667	114 200000	NAMPLES	MMILTES	TIMNIED
	ENTWISTLE	: >	478	-3.896	0			680	GSflvFe re/Sc cnvPPNaOCI2/TWR	53.600000	115.000000	×		
No.         1         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0	<b>EUREKA RIVER</b>	WP	ł		Ċ			5	E.	56.450000	118.733333			
M.         O.         O.         O.         M.         M.<	EVANSBURG	>	750	-3.696	0			2272	Corr Cht/NaOCU/TWR	53.600000	115,016667	×		
1         1         0.01         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0	EVERGREEN PARK,A	0	0		0				EZ.	55.166667	118.800000			
M0.1         C         M1         C         M2         C         M3         M3 </td <td>FAIRVIEW</td> <td>T</td> <td>3281</td> <td>0.896</td> <td>\$</td> <td>Peace River</td> <td>636400</td> <td>682</td> <td>RWR/Ar/Cg&amp;A/pH/SflvTO/FlwPPCl2/TWR</td> <td>56.066667</td> <td>118.383333</td> <td>×</td> <td>×</td> <td>×</td>	FAIRVIEW	T	3281	0.896	\$	Peace River	636400	682	RWR/Ar/Cg&A/pH/SflvTO/FlwPPCl2/TWR	56.066667	118.383333	×	×	×
1         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111         111	FAIRVIEW REGIONAL	•			~	Fairview WTP	and M		屋	56.066667	118 383333			
III         Control         C	FALHER	F :	1183	0.4%	0	Winagami I.ako via canal	86360	322	Aer/Cg/Cg/VSd/Sfl/pHIT&O/Clr/RSfl/Hu/CL2/TWR	55.733333	117.366667	×		×
R         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14         14 </td <td>FAUST</td> <td>H</td> <td>344</td> <td></td> <td>us .</td> <td>Slave Lake</td> <td>88200</td> <td>1023</td> <td>RWR/TO/Cg/CgA/pH/He/Sd/RSflvPPCI2/TWR</td> <td>55.316667</td> <td>115,633333</td> <td>×</td> <td></td> <td></td>	FAUST	H	344		us .	Slave Lake	88200	1023	RWR/TO/Cg/CgA/pH/He/Sd/RSflvPPCI2/TWR	55.316667	115,633333	×		
III         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1	FAWCEIT	H	144		¢			100	Fe re/GSflt/NaOCI/TWR	54.533333	114.083333	×		
No.         1         No.         1         Mach sector/Mathematication         4.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.333         1.3333         1.3333         1.3333         1.3333         1.3333         1.3333         1.3333         1.3333         1.3333         1.3333         1.3333         1.33333         1.3333         1.33333	FOOTNER LAKE	H	09		~					58.616667	117 (83333			
N         II         200         5         Lan Andhenia         400         100         5000         1000000000000000000000000000000000000	FORT ASSINIBOINE	>	214	-16.4%	0		10000	21	Mn re/GSflt/NaOCl/TWR	54.333333	114 766667	×	1	
V         I         Control         Contro         Contro         Control	FORT CHIPEWYAN	H	1200		00	Lake Athabasca	84000	865	RWR/Cg/Cg/vpH//RSflvCf2/TWR	58.700000	111,133333	×	×	×
V         C         Conditionational control contro control contro control contro control control contro control cont	FORT MACKAY	Η	267	1	5	Ells River		20	RWR/Fere/Aer/Cg/CgA/pH/HVPPNaOCI	57.183333	111.616667	×		×
I         I         Description         Description         Description         Sector         Description         Descripion <thdescription< th="">         Des</thdescription<>	FORT MCMURRAY	ບ :	33698	-0.796	50	Athabasca River	43300	60000	Cg/CgA/FO/pH/Clr/DMfl/Hu/NH4/PPCl2/9TWR	56.733333	111.383333	×	×	×
T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T         T	FORT VERMILION	Н	823		80	Peace River	100000	066	RWR/Cg/CgA/Clr/pH/RflVPPCL2/TWR	58.400000	116.000000	×		×
	FOX CREEK	F	2068	966.0	Ð			4818	GW/(1:GSftrNaOCI/TWR)(1:NT)(3:FeRe/Seq/Cl2/TWR)	54.400000	116,800000	×		×
V         700	<b>JIFT LAKE</b>	MS	424		20			850	Cg/CgA/Fie/Cir/pH/RSfit/NaOCI/TWR	55.883333	115.816667	×		×
W         NA         G         NA	GIROUXVILLE	>	367	4.996	\$		45455	818	RWR/Cg/Sd/Rfl/Sh/Cl2/TWR	55.750000	117.333333	×		
I         7         3001         54%         5         Victor (Add)         315         7         3155         7         3155         7         3155         7         3155         7         3155         7         3155         7         3155         7         7         3155         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7 <td>NIMOOD</td> <td>Μ</td> <td>NA</td> <td></td> <td>0</td> <td></td> <td></td> <td>10</td> <td></td> <td>55.216667</td> <td>118 183333</td> <td></td> <td></td> <td></td>	NIMOOD	Μ	NA		0			10		55.216667	118 183333			
3         4         3         Ward River         2000         500         NWC-2956AVF6-567ERFF10 ⁴ PPC12         31,6660         11,6660         12           1         0         3         Series         2000         2001         2001         2001         21,660         11,6600         12           W         N         0         3         Series         2010         2011         12,150         13,1660         11,18000         X           W         N         3         Ruffue hay Laure Bave         4300         71         RWS-archer Right Rig	<b>BRANDE CACHE</b>	F	3842	3.496	\$	Victor Lake		4545	Fe re/PfIVCL2/TWR	53.883333	119.133333	×		×
3         40         80         51         100         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110         110	<b>JRANDE PRAIRIE</b>	U	28330	6.8%	0	Wapiti River	200000	26509	RWR/Cg/CgA/Flo/Sd/Rflv/Flu/PPC12	55.166667	118,800000	×		×
H         06         500         511         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711         711	<b>JRANDE PRAIRIE</b>	AP			0				N	55.166667	118 800000			
H         A0         France           V         2012         0.01         5         MuCUTVR         531650         1136000         X           V         11         312         0.01         5         MuCUTVR         531650         1136000         X           V         WP         NA         5         MuCUTVR         531660         1131660         X           V         WP         NA         5         Sufforemetifier         4500         0.0         5         Sufforemetifier         5.31660         1131660         X           V         910         10         7         Sufforemetifier         3.0000         2.0         9.316600         X           RO         0         2         Sufforemetifier         3.0         1.0         1.0         1.06600         X           RO         1         1.0         1.0         1.0         1.0         1.0         1.06600         X           RO         1         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0	GRASSLAND	H	99		S&G	Surface runoll	22727	82	RWS/Aer/KMnO4/Cg/CgA/pH/Clar/RSflVAC/NaOCI/TW	54.816667	112.6833333	×		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	GREEN COURT	Ξļ	10		•	Private								
I         2312         0.0         1         2412         0.0         1           Y         WP         NA         5         Britho BryLaner Show         4300         22         RWR/PRICLT/WR         516650         1011060         X           W         NA         5         Saffree rundf         4300         23         RWR/PRICLT/WR         516650         111060         X           W         NA         5         Saffree rundf         4         4         1         101         1         101         1         10100         X           W         NA         203         4158         5         Soffsee rundf         1         101         1         101500         X           RPO         AP         203         4158         5         Soffsee rundf         1         101         1         10100         X           SP         203         4158         3         30000         23         Soffsee rundf         10100         101000         101000         101000         101000         101000         101000         101000         101000         101000         101000         101000         101000         101000         101000         101000         1010	<b>GRIFFIN CREEK</b>	WP	NA	4 444	0			1111	NT	56.016667	17.850000			4
II         332         5         Render bey/Laterer Slow         4300         70         Fore variet, Minol Org/Garg/OPIPPG/Chr Mul C217WR         533060         11110500         X           Y         WP         NA         5         Serficier model         4300         70         Fore variet, Minol Org/Garg/OPIPPG/Chr Mul C217WR         533060         11110500         X           YP         WP         10         5         Serficier model         4000         70         Fore variet, Minol Org/Garg/OPIPPG/Chr Mul C217WR         5310560         11110500         X           RPO         AP         Fore variet         30060         33         Coll         3110500         X           RPO         AP         Fore variet         30060         33         Coll         3110500         X           RPO         AP         Fore variet         30060         33         Coll         3110500         X           RPO         O         0         Fore variet         310600         72         Render model         3110500         X           RPO         AP         Fore variet         31000         72         Render model         311000         72         Render model         3110000         73         810600         13	GRIMSHAW	H	2182	9.046	Ċ			5773	Fluct2/TWR	56.183333	117.60000	×		×
Y         H         A         Surface mode         4000         22         NWPRPPCLJVWR         511666         113333         X           Y         Y         Y         Y         S         Surface mode         4000         22         NWPRPCLJVWR         511669         113333         X           Y         Y         201         -1.9%         S         Surface mode         30         Cod         31669         1173333         X           RO         A         0         -1.9%         S         Rout         24333         1643333         X           RO         A         0         -1.9%         S         Rout         S1666         113333         X           RO         A         0         -1.9%         S         Rout         S1669         113333         X           RO         A         1         202         ComputerLave         30610         113         S1669         1133333         X           RO         A         1         20         Relevence         30610         121         RWA         S1669         1133333         X           RO         A         1         20         RelevenA         20         <	GROUARD		352		0	Burralo Bay/Lesser Save	48500	105	Fe re-Aer, KMn04/Cg/Cg/VpH/Flo/Clr/RflvCt2/TWR	55.516667	116.150000	×		
W         W         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N         N	The second secon	I	24			Surface nunoff	40900	22	RWR/PHUPPCL2/TWR	55.550000	117.116667	×		
T.         271         3.574         5         Formutation         331565         1113333         X           T         2021         4.1%         5         Weit Prinio River         336158         1113333         X           RO         0         0         5         Weit Prinio River         336158         4118         5         540333         16483333         X           RO         0         0         5         Righ Prinio River         336128         4933         K         543333         16483333         X           RO<	HANNON VALLEY	AW	NA DI			Surface numor		4	1.041	20.110001	117 46665			
T         232         41%         5         Workshop         2000         No         5         Workshop         5         Workshop         5         343333         1648333         X           RCO         0         0         5         READ wate         333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         1648333         164	HIGH I FVEL	E.H	1000	495 1.		Forher I also	4000KD	PAST.	1.021.	CCCCCC7.1C	1000000.111	*		x
RD         AP         0         Defed witer         Na         S543333         16.463333           VCO         0         0         3         5543333         16.463333         16.463333           VCO         0         0         3         5543333         16.463333         16.463333           VV         313         -17.9%         5         Red Verter         53316657         18.80000         X           VV         313         -17.9%         5         Methon Verter         3         54.5667         X           VV         313         -17.9%         5         Methon Verter         3         16.43333         16.43333           VV         313         -17.9%         5         Methon Verter         33.16667         17.56667         X           VV         313         -17.9%         5         Methon Verter         3         54.3333         16.33333         16.35000         X           VV         10         3         1         1         1         1         53.3333         19.55000         13.56667         X           VV         10         3         1         1         1         1         3         3.556667         X <td>TIGH PRAIRIE</td> <td></td> <td>2032</td> <td>4.1%</td> <td></td> <td>Went Prairie River</td> <td>809915</td> <td>1100</td> <td>Cg/Cg/Cg/Cg/Cg/Ut/NH/NH/ND/Ch</td> <td>100010.00</td> <td>116.483333</td> <td>&lt; ×</td> <td>×</td> <td>&lt; ×</td>	TIGH PRAIRIE		2032	4.1%		Went Prairie River	809915	1100	Cg/Cg/Cg/Cg/Cg/Ut/NH/NH/ND/Ch	100010.00	116.483333	< ×	×	< ×
WCD         0         0         0         0         0         5,43333         16,40333         16,40333           ROV.         PP         0         G         G         GSMPF er/NoC12         5,43333         16,40333         16,40333           S         SD         2         G         G         S3,5666         115,0000         X           S         SD         4,8%         S         Anhabaca River         322,8         Comp. (Weldword)         51,4600         X         33,4666         117,56667         X           WP         NA         S         Suffice runoff         3         1<0	HIGH PRAIRIE AIRPO		0			Bottled water				55.433333	116.483333			
KOV.         P1         0         G         GSIUFs eNAOCC12         55316657         1613000           S         S1         17.9%         S         AcCreek         136000         1880000         X           T         933         4.5%         S         Acthek         32.16667         1135000         X           T         933         4.5%         S         Achhekar River         32.2         Rwy.Aer/CyCyApHYS/SILPPNACCI         53.16667         117.566671         X           WP         NA         S         Surface runoff         3         1 Gal         54.3600         117.556671         X           WP         NA         1 G         NA         1 Gal         54.3600         117.556671         X           H         102         O         Private         3         1 Gal         54.3600         17.556600         17.556600         17.556600         X           H         102         O         Private         3         1 Gal         X         X         X           H         102         S         Cabin Lake         100         31         1 Gal         333333         110.15667         X           H         23         Surface ru	HIGH PRAIRIE NW CO		0		50	I figh Prairie WTP			· ·	55.433333	116.483333			
S         SID         21         0           Y         713         -1/3         5         Albbuaca River         13.66667         118.80000         X           Y         713         -1/3         5         Static Trends         13.6600         723         RWS/Ae/Cg/Cg//PHISA/SHI/PPNACCI         55.55000         118.60000         X           Y         NA         3         Sufficer nuoff         3         1 Gal         54.56000         118.60000         X           W         NA         3         Sufficer nuoff         3         1 Gal         54.56000         118.66000         X           W         103         N         NM         NM         55.53333         19.530000         113.683333         X           W         103         N         NM         NM         55.5000         13.533333         19.33333         X           H         102         0         Anthe relatici         109         N         N         53.33333         110.716677         X           W         H         102         S         Suffice nuoff         43400         23         RAR/Cyfic/Fif/MHI/MOC/TWR         53.33333         119.313333         X           W	HILLIARD BAY PROV.		0		0				GSflt/Fe re/NaOCL2	55.516667	116.150000			
V         313         -17.9%         S         Jack Creek         136000         721         RWSAwiCg/Cg/NPHSd/SH/PPNaCCI         55.25000         18.66000         X           VP         NA         5         Athubasa River         32.8         Comp. (Weldwood)         53.16667         17.56667         X           V         NA         5         Suffice runoff         3.28         Comp. (Weldwood)         53.1166670         X           V         NA         6         Privee         3.0000         3.1         RWS/GFIG/FR/MPAICI         55.30000         117.55000         X           V         NP         4173         S         Comp. (Weldwood)         3.1         RWS/GFIG/FR/MPAICI         5.35333         10.715667         X           H         102         0         Amote         3.0         Amote         5.33333         10.715667         X           H         702         S         Comp. (Weldwood)         3.1         RWS/GFIG/FIG/FIG/FIG/FIG/FIG/FIG/FIG/FIG/FI	HILLTOP ESTATES	SD	23		0				Fe seq/NaOCUTWR	55.166667	118,800000			
	HINES CREEK	>	513	-17.9%	\$	Jack Creek	136000	727	RWS/Aer/Cg/Cg/VpH/Sd/Sfl/PPNaOCI	56.250000	118.60000	×	×	
WP         NA         S         Surface runoff         J         I Gal         57,066667         17,35000           V         NA         G         Private         5         53,33333         119,35000           H         433         S         Christina River         3000         31         RWR/CPRIVPH/NaCC/TWR         55,33333         119,35000           H         102         G         Private         5000         31         RWR/CPRIVPH/NaCC/TWR         53,33333         119,35000           LPA         NP         4/13         S&G         140         25         RWR/PHIVPC/I/T/TWR         53,3333         110,716667           H         73         S         Lensor Stree Lanoff         434300         22         RWR/PHIVPC/I/TWR         53,3000         113,933333           WP         NA         S         Surface Runoff         434300         22         RWR/PHIVPC/I/TWR         53,30000         113,0657           WP         NA         S         Surface Runoff         434300         22         RWR/PHIVPC/I/TWR         53,3000         113,0657           WP         NA         S         Surface Runoff         23         RWR/PHIVPC/I/TWR         53,30000         113,0657	NOTION	Ţ	9893	4.8%	\$	Athabasca River		5228	Comp. (Weldwood)	53.416667	117.566667	×	×	×
V         NA         G         Private         533333         119550000           H         103         S         Christian River         30000         31         RWR/Cg/Flo/TSth/pH/NaOC/TWR         5333333         11955000           H         102         G         Am/Pere/NaOC/TWR         533333         110716667           H         102         Sd         Am/Pere/NaOC/TWR         5445000         113983333           LPA         NP         4/13         Sd         Cabin Lake         1900         31         249000         113983333           LPA         NP         4/13         S         Nam/Pere/NaOC/TWR         538630         113983333           LPA         NP         4/13         Sd         49300         22         RWR/Cg/Cg/M/HAOC/TWR         5386607         113983333           WP         NA         S         Surface Runoff         43430         22         RWR/Cg/Cg/H/HAOC/TWR         5386607         113983333           WP         NA         S         Surface Runoff         43430         22         RWR/Cg/Cg/H/HAOC/TWR         5333333         11540667           V         193         O         431         NA         S         533333         11540667     <	HOTCHIKISS	WP	NA		\$	Surface runoff			1 Gal	57.066667	117.550000			
H         133         S         Christian River         31000         311         RWR/CyFle/RStfr/pH/NaOC/TWR         55.93333         110716667           H         102         G         0         34.4000         311         RWR/CyFle/RStfr/pH/NaOC/TWR         55.93333         110.715667           H         713         5.6G         Catin Lake         0.00         311         RWR/CyFle/RStfr/pH/NaOC/TWR         55.93333         110.715667           H         713         5.8G         Catin Lake         1900         431         22.         RWR/CyFle/RStfr/pH/NaOC/TWR         55.93333         113.933333           WP         NA         5         Surface runoff         43430         22         RWR/CyFle/RStfr/pH/NFINAC/TWR         55.33333         115.913333           WP         NA         5         Surface Runoff         43430         22         RWR/CyFle/RStfr/pH/NFINAC/TWR         55.33333         115.416667           WP         NA         5         Surface Runoff         435         NA         55.33333         115.416667           WP         160         G         PN         22         RWR/CyFle/RStfr/PAOC/TWR         55.333333         115.416667           H         160         G         PN         <	<b>EVITHE OFFILIB</b>	>	NA		Ð	Private				55.333333	119.550000			
H         102         G         Aar/Fe re/Na OCI         54,45000         113,93333           L PA         NP         4173         S&G         Cafin Lake         130         NB         54,45000         113,93333           H         73         S         Suffice runoff         45430         22         RWR/PH/PFCL2/TWR         55,88333         118,083333           H         73         S         Suffice runoff         45430         22         RWR/PH/PFCL2/TWR         55,88333         118,983333           WP         NA         S         Suffice Runoff         43430         22         RWR/PH/PFCL2/TWR         53,33333         115,933333           WP         NA         S         Suffice Runoff         43430         22         RWR/PH/PFCL2/TWR         53,33333         115,93333           WP         NA         S         Suffice Runoff         431         NA         53,86667         113,93333           WP         NA         134         RWCS/Cg/MFG/Ch/PH/MFI/NaOC/TWR         51,36667         113,933333           H         166         A         1136         Fe rePR/SI/NaOC/TWR         51,30000         113,416667           H         168         A         A         13	ANVIER	Н	435		\$	Christina River	20000	31	RWR/Cg/Ho/RSflvpH/NaOCUTWR	55.933333	110.715667	×		×
L PA         NP         4475         S&G Calini Late         1309         Nil           H         73         S Surface runoff         45430         22         RWR/PH/PPCL2/TWR         52.883333         113.083333           H         73         S Surface runoff         45430         22         RWR/PH/PPCL2/TWR         53.56667         113.953333           WP         NA         S         Leve runoff         45430         22         RWR/PH/PPCL2/TWR         53.56667         113.953333           WP         NA         S         Leve runoff         433         NA         55.66667         113.953333         15.416657           V         134         RWR/CyC/Gy/Ho/Cit/pH/M/H/NaOC/TWR         55.33333         15.416657         113.953333         15.416657           H         689         G         Prive         433         NA         55.43617         55.33333         15.416657           H         169         G         Prive         13.3         RevCyC/Gy/Ho/Cit/pH/M/H/NaOC/TWR         55.43333         16.400000           H         166         Fei re/PR/SI/M/AFI/NAOC/TWR         55.43333         16.400000         117.866667           T         233         0.2446         S         Leve/PR/SI/M/AFI/	ARVIE		102		0			89	Aer/Fe re/NaOCI	54.450000	113.983333	×		
H         73         Surface runoff         43430         22         RWR/Pft/PPCL2/TWR         55,90000         113,116667           H         269         5         Losser Stave Lake         9990         431         CgRSII/MAOC/TWR         55,350000         113,116667           WP         NA         5         Surface Runoff         23         KWR/Cg/CgA/Fle/CL//PH/MAFIVAOC/TWR         53,35333         113,416667           V         134         689         0         431         NA         53,33333         113,416667           H         169         0         7         433         NA         53,33333         113,416667           H         169         0         9         NA         53,33333         113,416667           H         169         0         9         NA         53,33333         113,416667           H         169         0         9         NA         53,33333         115,416667           H         169         0         9         NA         53,3333         54,30000           T         233         0.29%         5         13,410407107194/127071WR         56,433333         16,100000           H         169         0 <t< td=""><td>ASPER NATIONAL PA</td><td></td><td>4475</td><td></td><td>S&amp;G</td><td>Cabin Lake</td><td></td><td>1509</td><td>Ni</td><td>52.883333</td><td>118.083333</td><td></td><td></td><td>×</td></t<>	ASPER NATIONAL PA		4475		S&G	Cabin Lake		1509	Ni	52.883333	118.083333			×
H         269         S         Leaser Slave Lake         9090         431         CgRStIt/NaOC/TWR         53.56667         115.93333           WP         NA         S         Surface Runoff         22         RWR/Cg/Cg/r/Ho/Clr/pH/MMFIVaOC/TWR         53.536667         113.93333           V         154         -18.4%         5         Faust WTP         23         RWR/Cg/Cg/r/Ho/Clr/pH/MMFIVaOC/TWR         53.33333         115.416667           V         154         689         0         0         113.6         Fa re/PR/SI/MaOC/T         53.33333         115.416667           H         169         0         7         113.6         Fa re/PR/SI/MaOC/T         53.33333         115.416667           H         169         0         7         0.13.4         54.3333         115.406667           H         169         0         7         0.13.4         53.400000         119.160000           T         2333         0.2%         8         Lae La Biole         113.4         RWR/Cg/Mfor/UPI/T/O/Flu/CL/2/TWR         54.33333         116.400000           H         233         0.2%         8         Lae La Biole         113.4         RWR/Cg/Mfor/CL/T/TWR         56.433333         16.400000	EAN COTE	Н	52		~	Surface runoff	45430	22	RWR/Pflt/PCL2/TWR	55.900000	117.316667	×		
WP         NA         S Surface Runoff         22         RWR/Cg/CgA/Ho/Ctr/pH/MMH/NaOC/TWR         57.80000         113.86667           V         134         689         0         35.33333         115.416667         53.33333         115.416667           H         169         0         1136         For re/PN/SI/NaOC/TWR         55.33333         115.416667           H         169         0         1136         For re/PN/SI/NaOC/T         55.33333         115.416667           H         169         0         7         813333         115.416667         55.33333         115.416667           H         169         0         7         813333         115.416667         55.433333         115.416667           H         169         0         7         1134         RWR/Cg/Mfor/clu/Plu/TO/Flu/CL2/TWR         55.40000         119.150660           H         293         5         Lao La Biolo         1134         RWR/Cg/Mfor/clu/Plu/TO/Flu/CL2/TWR         56.430000         56.433333         116.10000           H         293         5         And         57.46000         56.433333         116.10000           H         293         7         76.6667         11.966667         56.433333         16.	IOUSSARD	H	269		\$	Lesser Slave Lake	0606	451	Cg/RSflvNaOCI/TWR	55.366667	115.933333	×		
V         124         -18.4 %         S         Fault WIP         4.35         NA         S5.33333         113.416667         S5.33333         113.416667         S5.33333         113.416667         S5.33333         S5.40000         S5.400000         S5.400000 <ths5.400000< th=""></ths5.400000<>	KEG RIVER	an :	AN I		0	Surface Runoff		22	RWR/Cg/CgA/He/Clr/pH/MMHIvNaOCl/TWR	57.800000	117.866667			
H         069         G         H36         Fe re/PIVSIONaOCI         55333         115 400000           H         169         G         Private         53.40000         19150000           T         2333         0.2%         S         LacLa Biole         1134         RWR/Cg/Microff/rPfl/TO/Flu/CL2/TWR         55.43333         119.160000           H         39         S         Hauded from Cadotte Lake         9         NA         56.433333         115,106667           H         39         Private         9         NA         56.433333         115,106600           H         39         Private         9         NA         56.433333         115,106667           H         39         Private         9         NA         56.430000         56.433333           H         161         G         Private         9         NA         56.56000         15.11966667           H         161         G         Private         23         Prov for Dis/TWR         56.550000         15.316667           H         218         S         Rod Earth Creek WTP         23         Prov for Dis/TWR         56.550000         15.400000	KINUSO	>;	154	-18.496	0	Faust WIP		155	NA NA	55.333333	115.416667			
T         233         0.2%         5         Finance         1134         RWR/Cg/MicroffurPfu/TO/Fju/CL2/TWR         53,46667         11,966667           II         233         5         Late Latio         9         NA         56,433333         11,1966667           II         29         NA         9         NA         56,433333         115,106000           II         39         Private         9         NA         56,433333         115,106000           II         16         G         Private         9         NA         56,433333         115,106000           II         161         G         Private         9         NA         56,433333         115,106667           II         161         G         Private         23         Prov for Dis/TWR         56,550000         115,316667           II         218         S         Rod Earth Creek WTP         23         Prov for Dis/TWR         56,550000         115,400000	A CKEIE	= >	089		0 0			1136	Fe re/Ph/Sh/NaOCI	58.183333	116.400000	×		
I         2.33         0.4278         0.4278         0.4278         0.4000         0.112.0000           II         233         S         Haudoffrom Cadotte Lako         9         NA         56.433333         116.10000           II         33         Private         56.433333         115.10000         115.316667           II         161         G         Private         53.40000         115.316667           II         218         S         Red Earth Creek WTP         23         Prov for Dis/TWR         56.55000	ACT A BICHE	<b>5</b> +	1995	194.0		BIRVITA Distant				000000-00	111 10101 111	~		>
H         39         Private         53.100000         115.316667           H         161         G         Private         53.100000         115.316667           H         218         S         Red Earth Creek WTP         23         Prov for Dis/TWR         56.550000         115.40000	LITLE BUFFALO	• =	253	2.4.2		Hauled from Cadotte Lake			NANCE MUTURE IN COMPLEX LAN	56.433333	116 100000	¢		
If         161         G         Private         53.100000         115.316667           11         218         S         Rod Earth Creek WTP         23         Prov for Dis/TWR         56.550000         115.400000	LITILE SMOKY	Н	39		,	Private								
11 218 S Red Earth Creek WTP 2.3 Prov for Dis/TWR 56.550000 115.400000	LODGEPOLE	н	161		Ð	Private				53.100000	115.316667			
	LOON LAKE	н	218		\$			23	Prov for Dis/TWR	56.550000	115.400000	×		

- <b>A</b>
<b>_</b>
0
r)
$\mathbf{U}$
$\mathbf{c}$
. I.
-
43
-
0
ab
_ca

FACILITY S	STATUS POPULATION % Pop. TYPE obstract	% NOITA	% Pop. TY	YPE	SOURCE	RAW STORA	TREATED SI m'	TREATMENT	INT	DNOT	SURVEY RAW VISIT SAMPLES SAMPLES PLANNED	RAW	PLANNED
MANNING	T 11	1144 -0		N	Notibiwin River	163640	1830	RWR/Aer/Cg/Sd/pH/Rfl/Flu/Cl2/TWR	56.916667	117.616667	x		×
MANOLA	H J	11		S F	From Barrhoad		16	E	54.100000	114.233333			
MARIE-REINE	WP 9	66		s S	Sturface mooff		14	RWR/Aer/Cg/PIIt/NaOCI/TWR	56.066667	117.283333	×		
MAYERTHORPE	T 16		19.7%	0			3410	FeRe & Mure/GS/It/Cl2	53.950000	115.133333	×		
MCINNIS (WELL #1)	WP N	NA		0				更					
MCTNNIS (WELL #2)	WP N	NA	-					E.					
MCLENNAN	T 10	1026 2.	2.796	N N	Winigard Lake via canal	207500	1300	RWR/Cg/Cg/vpii/Clr/RSflvFiu/PPCI2/TWR	55.700000	116.900000	×		
MILDRED LAKE/LOW	1			s >	Athabasca River	20105	36	Stuby C12	57.050000	111.583333			
MILDRED LAKE/UPPE	1			S A	Athabasca River	17728	932	P.Filt., Polymer	57.050000	111.583333			
MITSUE IND. PARK	0	0		SL	Lesser Slave River			P. Filt/Non-Potable	55.266667	114 616667			
MOONSHINE LAKE P	PP 44	0		s M	Moonshine Lake			P. Filt	55.883333	119 216667			
NAMPA	WF N	NA		S SI	Surface Runoff			I. Gal.	56.033333	EEEEE1 211	×		
NAMPA	V 49	496 6.	966.9	s N	North Heart River	113650	1137	RWR/Aer/Cg/CgA/pH/Sd/Clr/RflvPpCL2/TWR	56.033333	117 133333			
NEERLANDIA		12		SB	Baird Lake	22500	1360	RWR/Cg/Cg//Hc/Clr/pH/KMnO4/Flt/Cloram/IWR	54.333333	114.366667	×		
NEW FISH CREEK		NA		0			18	更	55.300000	117.250000			
NITON JUNCTION		72		P	Private								
NORTH STAR	WP N	NA		9	Surface runoff		II.	I.Gal.	56.850000	117,633333			
PADDLE PRAIRIE	MS 47	470		S B	Boyer River	68000	255	RWR/Aer/Cg/CgA/Fic/Sd/FivNaOCI	57.950000	117.483333	x		
PEACE RIVER	T 66	6696 6.	6.8%	S P	Posce River		14189	AC/Cg/CgA/CIr/RBVFIw/CI2/TWR	56,233333	117,283333	×		×
PEACE RIVER AIRPOR	AP	0			East Grimshaw Co-op			Res/NaOCI	56 233333	117.283333			
PEACE RIVER C.C.		0		SP	Ponce River	4546	1795	RWR/Cg/CgA/pH/Clr/Flr	36 166667	117.416667			
PEACE RIVER PULP M									56,166667	117.416667			
PEAVINE		363			South Heart River			RWS/Cg/CgA/MMBUNaOCI					
PEERLESS LAKE		233		S P	Peerless Lake		100	Comp.	56,666667	114,583333	×		×
PEERLESS LAKE		0	ŝ	SdeG				Soft.	56.666667	114,583333			
PEERS	П 16	162	1		Privato								
PEORIA		25		S	Surface runoll	16365	5	RWR/P0VNaOCL2/IWR	55.616667	118 2833333	×		
PIBROCH		100			A state and a state of the		100	Gsfft/Fe re/NaOCI/TWR	54.266667	113.866667	×		
PICKARDVILLE		190			Pembina River (Westlock)		89	NaOC/TWR	54.050000	113.883333			
PINE SHADOW ESTAT	8		72					空	53.583333	116 433333	;		
PLAMONDON			1.296		Lac La Biche		114	Cg/RSflvTO/pH/Cl2/TWR	54.850000	112.316667	×		
PUSKWASKAU		NA		0				密	55.250000	117.650000			
QUEEN ELIZ (LAC CA								A state of the second	54.050000	111.3333333	4		
RAINBOW LAKE			21.096		Surfice runoff	318000	1376	RWR/ChilAon/Cg/CgA/pH/RSBUPPCI2/TWR	58.500000	119.383333	×		
RED EARTH		NA			Red Earth Creek WTP				56.616667	115,300000			
REINWOOD		NA			Surflice runoli	1000	G	更	56.7333333	17.450000			
RENO		20		Ξ.	Stafface runoff	3182	Н	ren.	26.000000	117.000000			
RIDGE VALLEY		32		D			46	N.	55.166667	117.866667			
RUNHE VALLEY	HC	-	ľ						100001.00	1000001			
RUBB BOCITICATER		007		5	PTIVILIA D			Long Long Long Long Long Long Long Long	100017.00	0.200001			
POCHEOPT BRIDGE				4 P	Prints								
POCKY I ANE		MA			Curdines Duniel				13881818	116 366667			
BOCKVI ANE SCHOOL		5 0			Mandad From 1 Aval 1170			NSI NSI	19991515	116 366667			
ROYCE		NA			Surface Runoff	6820	-	RWR/MMB/NBOCI	56.216667	114.966667			
RYCROFT			-1.766		Sninit River	312000	1045	RWS/Aer/Ce/CeA/Clar/Sflt/PPCI2	55.750000	118 716667	×		
SANDY LAKE	И				Sandy Lake	3300	173	RWR/MMFIVACFIVNaOCI	56.000000	113 883333	×		
SANGUDO	V 36		3.6%	0			e	Fe seq/NaOC/TWR	53,883333	114 90000	×		
SASKATOON ISLAND	b dd			Ð				GsflvFe re/NaOCI	55,20000	119.083333			
SEXSMITH	T 12	1236 0.	0.3%	D			2728	TWR	55.350000	116 783333			×
SHELL-PEACE R INSI	1	0		S P	Peace River			FIVSD/AC/Chlor	56 233333	117.283333			
SIR WINSTON CHURC	PP 0	0		S L	Lac La Biche		45	PIIUNaOCUTWR	54.833333	111.983333			
SLAVE LAKE	T 36	3607 3.	3.396	S L	Lesser Nave Lake		4786	Cg/CgA/Fie/Sd/pH/T&O/Rfl/Fiu/C12/TWR	55 283333	114.766667	×	×	×
SMITH	H 32	323		S A	Athateace River	32731	454	RWR/Cg/Pfl/CL2/TWR	55.166667	114.033333	×	×	×
SPIRUT RIVER	T 10	1044 -6	-6.496	S. SI	Surface nunoll	510556	1586	RWR/Cg/CgA/Flc/Sd/Clr/FO/pH/2RSflr/Flu/PPCl2	55.783333	118.833333	×		

#### SAMPLES SAMPLES PLANNED VISIT 2 ×× ×× × SURVEY RAW × × Iron sequestering agen! Dual-modia filtration × × × × Cyclonic separation Iron sequestering fron removal 16.650000 119.083333 15.400000 16.400000 16.400000 18.683333 14.533333 14.533333 117.283333 17.283333 18.400000 17,616667 119.133333 113.866667 115.6833333 18.066667 18 066667 115,233333 17.550000 19.550000 18.766667 EEEEE17611 17.533333 119,083333 117.100000 16.866667 16.883333 18.400000 17.083333 14.70000 113,883333 12.466667 117,666667 17.316667 117.416667 16.866667 18.766667 7.666667 *IREATMENT CODES* pH control LONG Softening V pos of 56.500000 55.066667 55.200000 56.283333 55.150000 54.150000 56,116667 53.616667 58,750000 56.166667 55.116667 55.016667 55.166667 55.800000 56.350000 58.183333 58.183333 55.166667 56.500000 55.066667 56.000000 55.733333 56.300000 55.716667 54.150000 56.116667 55.083333 55.3333333 51.616667 55.583333 56.516667 55.066667 58.750000 56.200000 55.116667 54.716667 55.366667 54.116667 DMMU Fo soq Fe re/ CSep/ /Hd 5 SP 2RWR/Asr/Cg/Cg/VHc/Clr/pH/RSflVAC/NaOCI/TWR XWR/Cg/CgA/p1/Fe re/Sd/AC/RSB/Flu/PPC12/TWR Cg/Sed/Sf/pH/AC/Rfl/tflu/PPCI2/NnOCl/TWR RWR/Cg/CgA/AC/Sd/Rflt/Flu/PPCl2/TWR RWR/Cg/CgA/Sd/pH/PfII/ACfII/CL2/TWR Cg/Cg//Sd/Sfl/Clr/Rfl/Fe re/NaOC1/TWR RWR/Cg/CgA/RSflt/pH/TO/NaOCI/TWR RWR/Aer/Cg/CgA/Sd/FlVNaOCl/TWR TO/Cg/CgA/RflvpH/Clr/Flu/Cl2/TWR NaOCI (Apr 1 to Oct 31 each year) TREATMENT NaOCL2/CLOSED Dec 5, 1991 NT (operated Apr 1 - Nov 1) RWR/Cg/CgAFFIc/fl/NaOCI Fasto and Odour control RWR/PBUNBOCI/TWR RWR/Cg/Sd/Rfl/CL2 Raw witter resorvoir Sh/Fo ro/PPNaOCI Iron Removal No Treatment fron Removal NaOCUTWR GSBUNaOCI Algae control Fo Seq/Cl2 Oxidation Complete Aeration TREATMENT CODES P. Filt. Cistem P.Fall Gal. M Ş 물 코 Z ワ 문 렾 Z 문 E ę RAW STORA TREATED ST 0433 RWR/ 3000 4546 1318 4346 1050 472 È CsU 6 Aer/ Ţ0 185 573 682 114 418 2 1 33 H -Ξ 5 68 Ē 2,6849 194000 34060 73640 38600 25000 15000 27000 50000 Ē Haulod From High Preirio Hauled From Local WP North Wabascu Lake Canyon Creek WTP Canyon Creek WIP SOURCE Wandering River Shirgeon Creek Surface Runoff Surface Runoff Surface Runoff Freeman Lake Surface nunoff Surface Runoff Pembina River Macleod River Surface nunoff Wapiti River Euroka River Frout Lake Private Spring Spring STATUS POPULATION % Pop. TYPE \$ C \$ \$ \$ ٣ ΰ z n C s, s ŝ \$ 20 ŝ C C Ċ C C v. C C O Ċ Ċ Ċ Ċ C C C v. 2 -2, 396 -0.4% 11.396 20.996 4.1% change -7.396 Summer Village Provincial Park Subdivision 300 2039 1382 4463 290 001 216 ٧N ٧N 5692 139 178 06 VN 2407 ٩v 8 99 18 ٩N • AN N 0 103 36 43 M 99 MA 130 353 ٩N ×z 0 0 5 31 ۰ Table A-3: Continued STATUS CODES Hamlet Villego [[0WII City MHP **dHD** H \$ dd ŝ Å R ŝ ŝ PP PP PP 5 ŝ 8 Н 0 Ξ H Η £ 20 dd WEYERHAEUSER GRA WEYERHAEUSER GRA STURGEON HEIGHT C **TROUT LAKE (KATERI** WILLIAMSON PROV.P WINAGAMI LAKE P.P. WILLOW GROVE T.P.( THUNDER LAKE PRO TOMPKINS LANDING YOUNG'S POINT PRO TOMKINS LANDING WANDERING RIVER WHITTELAW SPRING T&E TRAILER PARK WEBERVILLE (#1) WEBERVILLE (#2) WARRENSVILLE FACILITY THREE CREEKS STRONG CREEK SUNSET HOUSE SUNSET HOUSE TEEPEE CREEK SWEATHOUSE VALLEYVIEW VALLEYVIEW WHITECOURT SWAN HILLS IRUPLE LT.P. TROUT LAKE WIDEWATER WHITE GULL WILDWOOD VALHALLA ST. ISIDORE WESTLOCK WHITELAW WABASCA WEMBLEY WANHAM TANGENT WORSLEY WAGNER WOKING WATINO ZAMA ZAMA

-
5
6)
-
-
-=
-
0
<b>C</b> )
$\smile$
$\mathbf{m}$
1.1
-
<
-
(1)
_
-
<u> </u>
69
<b>F</b>
<b></b>

FACILITY	STATU	STATUS POPULATION % Pop. TYPE	V % Pop.	TYPE	SOURCE	RAW STORA TREATED ST	TREATED	SF TREATMENT	LA	AT LONG	G SURVEY	RAW	VISIT
			change			,m	"H				SAMPLES	SAMPLES SAMPLES PLANNED	PLANNEL
	MBIP	Mobile Home Park	ark				Cg/	Coagulation	Sec	So cntr/ Scale Control	introl		
	REG	Regional System	u				CBN	Coagulant aid	1 H	Flu/ Fluoridation	tion		
	WCO	Water Cooperative	tive				He/	Flocculation	NaG	OCV Disinfect	NaOCV Disinfection with NaOCI		
	WP	Watering Point					Clt/	Clarification	PPNa	aOCV Pro & pu	PPNaOCV Pre & post disinfection with NaOCI	th NaOCI	
	æ	Indian Reserve					SdV	Sedimentation	G	Cl2/ Disinfect	Disinfection by chlorine gas	18	
	MS	Metis Settlement	It				CRV	Carbon adsorption filtration	Ddd	PPCI2/ Pro & pc	Pro & post disinfection with chlorine gus	th chlorine g	115
	s:	School					MsRV	Micro strainer filtration	CaC	OCV Disinfeo	CaOCI Disinfection with CaOCI		
	0	Other					PRV	Pressure filtration	PPCa	aOCV Pre & pu	PPCaOCI/ Pre & post disinfection with CaOCI	th CaOCI	
							SAV	Slow sand filtration	10	UV/ Disinfect	Disinfection by ultra-violet		
							RRU	Rapid sand filtration	Sup	SupCIV Supplem	Supplemental chlorination		
							Gafty	Marganese greensand filtration	HN		Disinfection by combined chlorination	chlorination	
							NTMATH/	Multi-media filtration					

