

a 	State of Washington Department of Ecology WASTEWATER TREATMENT PLANT COMPLIANCE INSPECTION REPORT		Northwest Regional Office 3190160 th Ave SE Bellevue, WA 98008 (425) 649-7000 ph (425) 649-7098 fax (last update 6-11-07)
	Section A: General Information		

Report Version <input checked="" type="checkbox"/> New <input type="checkbox"/> Changed <input type="checkbox"/> Delete	PERMIT # WA0020257	mo/day/yr 02/21/2012	Inspection Type S	Inspector Code S	Facility Type <input checked="" type="checkbox"/> 1 Municipal <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private
Remarks					
Inspection work days 4.0	Facility Self-Monitoring 4	Photos Taken <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Samples Taken <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	BI N	QA N

Lead Ecology Inspector(s)
Lori LeVander

Section B: Facility Data

Name, Location, and Phone of Facility Inspected City of Anacortes WWTP 500 T Avenue Anacortes WA 98221 Skagit County	Entry Time 11:05 AM	Permit Effective Date 9/1/05
	Exit Time 13:30 PM	Permit Expiration Date 8/24/10
Name(s)/Title(s) of On-Site Representative(s) John Franz, Plant Manager, Group III Operator Rebecca Fox, Lab Supervisor 360-299-0953	Ecology Staff On-Site Lori LeVander Laura Fricke Monika Kannadaguli	
Name, Address, Title, Phone, and Fax Number of Responsible Official H. Dean Maxwell, Mayor PO BOX 547 Anacortes WA 98221	Other Facility Data	
Phone Number (360) 299-1950 Fax Contacted? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

Section C: Areas Evaluated During Inspection (Check only those areas evaluated)

<input checked="" type="checkbox"/> Permit	<input checked="" type="checkbox"/> Flow Measurement	<input checked="" type="checkbox"/> Operations & Maintenance	<input type="checkbox"/> CSO/SSO (Sewer Overflow)
<input checked="" type="checkbox"/> Records/Reports	<input checked="" type="checkbox"/> Effluent <input type="checkbox"/> Receiving Water	<input checked="" type="checkbox"/> Sludge Handling/Disposal	<input type="checkbox"/> Pollution Prevention
<input checked="" type="checkbox"/> Facility Site Review	<input type="checkbox"/> Compliance Schedules	<input type="checkbox"/> Pretreatment	<input type="checkbox"/> Multimedia
<input checked="" type="checkbox"/> Self-Monitoring Program	<input type="checkbox"/> Laboratory	<input type="checkbox"/> Storm Water	<input type="checkbox"/> Other

Section D: Summary of Findings/Comments

I. INTRODUCTION

Ecology employees Lori LeVander, Laura Fricke, and Monika Kannadaguli conducted a regional Class II compliance inspection (with sampling) at the City of Anacortes Wastewater Treatment Plant (WWTP). This was an announced inspection due to the need to coordinate sampling with the facility.

The facility is regulated by NPDES Permit no. WA0020257 which expired on August 24, 2010. The permit was administratively extended based on the timely submittal of a completed permit application. The purpose of this inspection was to prepare for issuance of a renewed permit and to fulfill the regional Class II inspection requirements. We conducted a site inspection, records review, and assessment of the permittee's self-monitoring. Ecology collected split samples with the permittee to determine the comparability of sampling methods and laboratory results, and to evaluate permit-limited parameters.

The Anacortes WWTP discharges into Guemes Channel at approximately 31 feet depth. The current treatment plant was constructed in 1992, and serves a population of around 16,190. The last sampling inspection was conducted in January, 2005.

II. RESULTS AND DISCUSSION

Collection System: Anacortes has a combined sewer system. The two remaining overflow outfalls discharge less than once per year. The collection system includes 23 pump stations.

The plant includes a septage receiving station with holding tanks, a grinder and pump. Septage loading for 2011 was about 1.27 million gallons. Industrial dischargers to the plant include Trident Seafoods, Sugiyo USA (seafood), the Port of Anacortes (stormwater), and the state ferry system, which discharges to the pump station at the ferry terminal.

Flow Measurement: Influent flow is measured with 3 Milltronics level sensor sonic meters over the Parshall flumes located after the bar screens (photo #06). The flow data is transmitted to the SCADA system. Effluent flow is measured with a Newsonics Ultrasonic flow meter within the pipeline. The meters are calibrated annually, in house. Flow normally runs around 2 MGD but was up to 9 MGD during the inspection due to heavy rains.

Liquid Stream:

Two screw pumps lift the influent from the headworks (photo #03). Each screw pump has a capacity of 10 MGD and they are used one at a time. There are two mechanical bar screens (photo #04) and a manually cleaned bar screen (photo #05) for high flows. Influent was exceeding the capacity of the 2 bar screens during the inspection so the manual back-up screen channel was operating. Screenings are dewatered, bagged (photo #07) and dropped into a dumpster for disposal.

One or two primary clarifiers, aeration basins, and secondary clarifiers are used depending on flow. Both aeration basins were operating during this inspection due in response to the high flows. The secondary clarifiers run in parallel. Scum is removed and pumped to the aeration basin.

Flow blending (bypass of primary effluent around the aeration basins and secondary clarifiers) is permitted when flows exceed 7.8 MGD. During the inspection, it was raining and plant flows were approximately 9.5 MGD. The manual bar screen, bypass mechanism, and extra clarifiers and aeration basins were all in use. Sampled effluent for this inspection includes blended primary/secondary treated effluent, which must continue to meet all permit limits.

Effluent is disinfected with hypochlorite and dechlorinated with sodium bisulfite.

Solids Stream: Waste solids are screened out, dewatered and placed in a dumpster that is hauled to a landfill. The facility is experimenting to try and get the solids dryer. Grit is removed from the primary clarifier sludge with a cyclone separator then classifier and routed to a dumpster (photo #7). The lighter material is routed to one of the 2 gravity thickeners for sludge storage. Waste solids are conditioned with polymer (photo #12) then dewatered with a belt press and sent to the on-site incinerator. The liquid from the dewatering process is pumped to the head of the primary clarifier.

Solid Waste: Ash, screenings, and the heavy grit are sent to the municipal landfill.

Alarms/Back-up Power: The plant alarm system alerts staff in case of a power failure. The emergency generator (photo #15) can run the entire plant. The generator is exercised weekly. All 23 pump stations are alarmed and hooked up to the SCADA system. Twelve generators are dedicated to the pump stations and 3 mobile generators are available in the event of a power outage.

Staffing: The Anacortes WWTP is fully staffed between 7 am and 5 pm. An on-call operator takes emergency calls from a auto dialer system. Nine operators, three supervisors, and one plant manager work at the plant and collection system, rotating through the main work areas of laboratory, maintenance, operations, and incineration. WWTP personnel maintain the pump stations, force mains and conveyance system; Public Works maintains the gravity sewer system.

Records Review: The Anacortes WWTP Laboratory has completed and is current with Ecology's Lab Accreditation Program, #M037. The lab's bench sheets were well organized and easy to find. A quick comparison between bench sheets and DMRs showed the paperwork was in agreement.

Sampling: Samples were split to compare the District's laboratory methods with Ecology's Manchester Lab. Influent and effluent flow proportioned composite samples are drawn by automated, refrigerated samplers. Temperature for the influent sampler read 2.5 °C. Temperature for the effluent sampler read 4 °C. Grab samples were taken by Becky Fox, Lab Supervisor (photo #16) for fecal coliform analysis. Samples were collected and split on Tuesday, February 21. Ecology samples are iced and transported to the Manchester Laboratory on Wednesday early morning, February 22.

Results are shown in the table below. TSS and CBOD₅ results were in very close agreement. Effluent fecal grab sample values varied quite a bit so a resample is suggested. Fecal grab samples can vary because of the lengthy holding time and variability in grab samples themselves.

Parameter	Influent		Effluent	
	Anacortes	Ecology	Anacortes	Ecology
BOD ₅ (mg/L)		105		
(Inhibited BOD) CBOD ₅ (mg/L)	64	78	9.4	12
TSS (mg/L)	146	144	11/14	12
Fecal Coliform Bacteria (#/100 mL)			E 35	72 (Dup=60)

Bench sheets sent in by John Franz on March 29. I recommend resampling fecal coliform for comparison.

III. CONCLUSION



The Anacortes WWTP facility is very well maintained and the staff are very skilled and competent. We observed good management of high wet weather flows. A draft of the new NPDES permit will be available soon for Anacortes staff to review.

Please contact Laura Fricke, 425-649-7062, lfri461@ecy.wa.gov for any permit related questions. Contact Amy Jankowiak, 425-649-7195, amy.jankowiak@ecy.wa.gov, with any compliance related issues.

Attachments: Inspection photographs

Copies:

John Franz, Anacortes WWTP
 Amy Jankowiak, Municipal Compliance, NWRO
 Carl Jones, Operator Outreach (e-copy)
 Central Files, Anacortes WWTP, WA0020257, WQ 6.1

Name(s) and Signatures of Inspector(s)	Agency/Office/Telephone	Date
Lori LeVander 	WA Dept. of Ecology, NWRO, (425)649-7039 3190-160 th Ave SE, Bellevue WA	3/30/12
Laura Fricke 	425-649-7062	3/30/12
Name and Signature of Management QA Reviewer	Agency/Office/Telephone	Date
Mark Henley	WA Dept. of Ecology, NWRO, (425)649-7103	

ANNOUNCED Inspection

INSTRUCTIONS

Section A: General Information

Report Version: N for 1st version, C for Changed or amended, or D for Delete

NPDES Permit No.: Enter the facility's NPDES or State permit number.

Inspection Date: Insert the date entry was made into the facility. Use the month/day/year format (e.g., 06/30/04 = June 30, 2004).

Inspection Type: Use one of the codes listed below to describe the type of inspection:

A Performance Audit	L Enforcement Case Support	2 IU Sampling Inspection
B Compliance Biomonitoring	M Multimedia	3 IU Non-Sampling Inspection
C Compliance Evaluation (non-sampling)	P Pretreatment Compliance Inspection	4 IU Toxics Inspection
D Diagnostic	R Reconnaissance	5 IU Sampling Inspection with Pretreatment
E Corps of Engineers Inspection	S Compliance Sampling	6 IU Non-Sampling Inspection with pretreatment
F Pretreatment Follow-up	U IU Inspection with Pretreatment Audit	7 IU Toxics with Pretreatment
G Pretreatment Audit	X Toxics Inspection	
I Industrial User (IU) Inspection	Z Sludge	

Inspector Code: Use one of the codes listed below to describe the *lead agency* in the inspection:

C - Contractor or Other Inspectors (Specify in Remarks Columns)	N - NEIC Inspectors
E - Corps of Engineers	R - EPA Regional Inspector
J - Joint EPA/State Inspectors - EPA Lead	S - State Inspector
	T - Joint State/EPA Inspectors - State Lead

Facility Type: Use one of the choices below to describe the facility.

- 1 - Municipal. Publicly Owned Treatment Works (POTWs) with 1987 Standard Industrial Code (SIC) 4952.
- 2 - Industrial. Other than municipal, agricultural, and Federal facilities.
- 3 - Agricultural. Facilities classified with 1987 SIC 0111 to 0971.
- 4 - Federal. Facilities identified as Federal by the EPA Regional Office

Remarks: These columns are reserved for remarks.

Inspection Work Days.: Estimate the total work effort (to the nearest 0.1 work day), up to 99.9 days, that were used to complete the inspection. This estimate includes the accumulative effort of all participating inspectors; any effort for laboratory analyses, testing, travel time and preparation time. This estimate does not require detailed documentation.

Facility Evaluation Rating: Use information gathered during the inspection (regardless of inspection type) to evaluate the quality of the facility self-monitoring program. Grade the program using a scale of 1 to 5 with a score of 5 being used for very reliable self-monitoring programs, 3 being satisfactory, and 1 being used for very unreliable programs.

Biomonitoring Information. Enter D for static testing. Enter F for flow through testing. Enter N for no biomonitoring.

Quality Assurance Data Inspection. Enter Q if the inspection was conducted as follow-up on quality assurance sample results. Enter N otherwise.

Photos Taken: Yes or No

Samples Taken: Yes or No

Lead Ecology Inspector: Enter lead inspector's name

Section B: Facility Data

This section is self-explanatory except for: "Other Facility Data," which may include new information not in the permit or PCS (e.g., new outfalls, names of receiving waters, new ownership, and other updates to the record), e-mail addresses...; and "Ecology Staff On-Site", which may include staff names, titles, phone numbers, or e-mail addresses.

Section C: Areas Evaluated During Inspection

Check only those areas evaluated by marking the appropriate box. Use Section D and additional sheets as necessary.

Section D: Summary of Findings/Comments

Support the findings, as necessary, in a narrative report. Use the headings given on the report form (staffing, back-up power) as appropriate. Reference a list of attachments, such as completed checklists, photos, lab reports, etc. Use extra sheets as necessary.

LINKS AND INFORMATION:

"Informational Manual for Treatment Plant Operators"; February 2004; by the Department of Ecology
Publication Number 04-10-020:

<http://www.ecy.wa.gov/pubs/0410020.pdf>

The manual was prepared to help wastewater treatment plant operators complete and submit their Discharge Monitoring Reports (DMRs) and other annual reports to the Department of Ecology. The manual is available in hard copy. To request a copy, contact the Department of Ecology, Publications Distribution Center at P.O. Box 47600, Olympia, WA 98504-7600 or by Telephone: (360) 407-7472. Updates to the manual are included on the website version.

Ecology's Wastewater and Reuse website:

<http://www.ecy.wa.gov/programs/wq/wastewater/index.html>

Ecology's Operator Certification website:

http://www.ecy.wa.gov/programs/wq/wastewater/op_cert/index.html

Ecology's Laboratory Accreditation website:

http://www.ecy.wa.gov/programs/eap/labs/labs_main.html

Ecology's Biosolids website:

<http://www.ecy.wa.gov/programs/swfa/biosolids/>

Ecology's Operator Outreach: Carl Jones (360) 407-6431; cjon461@ecy.wa.gov

Ecology's Municipal Compliance Specialist (Northwest Regional Office): Amy Jankowiak (425) 649-7195;

ajan461@ecy.wa.gov

Ecology's Wastewater Operator Certification Coordinator: Poppy Carre (360) 407-6449; 1-800-633-6193 (within the state)

poca461@ecy.wa.gov

Ecology's Biosolids Coordinator (Northwest Regional Office)" Marietta Sharp (425) 649-7258 mars461@ecy.wa.gov

Reporting Spills/Overflows/Upsets/Bypasses/Loss of Disinfection IMMEDIATELY:

Ecology's 24-hour number: (425) 649-7000 to report a spill

Department of Health – Shellfish Program 24-hour number: (360) 236-3330

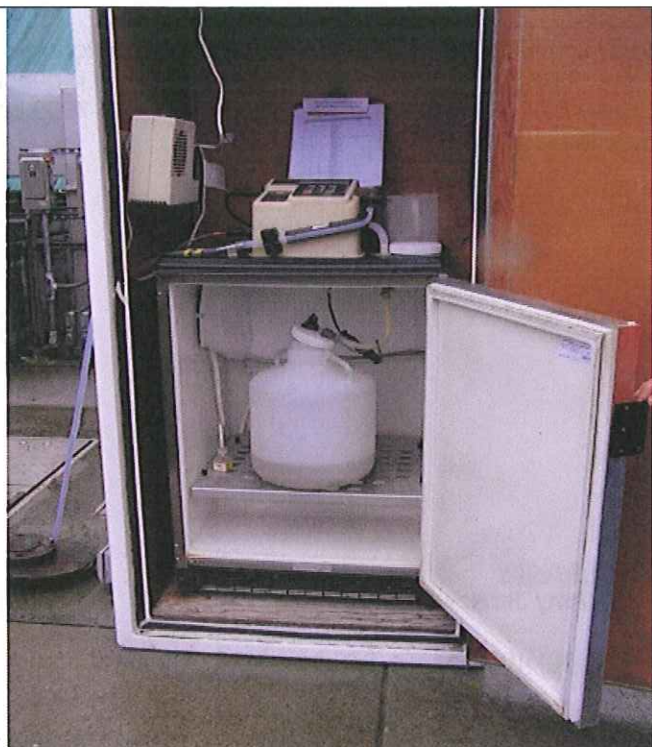
PHOTO ADDENDUM – ANACORTES WWTP

PHOTO #:01 DATE: 02/21/2012
TAKEN BY: MONIKA KANNADAGULI
DESCRIPTION: INFLUENT COMPOSITE SAMPLER



PHOTO #:02 DATE: 02/21/2012
TAKEN BY: MONIKA KANNADAGULI
DESCRIPTION: INFLUENT GRAB SAMPLE FOR PROCESS CONTROL SAMPLES.



PHOTO #:03 DATE: 02/21/2012
TAKEN BY: MONIKA KANNADAGULI
DESCRIPTION: SCREW PUMPS (UNDER METAL ROOF) LIFT INFLUENT INTO BAR SCREENS.



PHOTO #:04 DATE: 02/21/2012
TAKEN BY: MONIKA KANNADAGULI
DESCRIPTION: INFLUENT BAR SCREENS.

PHOTO ADDENDUM – ANACORTES WWTP

PHOTO #:05 DATE: 02/21/2012
TAKEN BY: MONIKA KANNADAGULI
DESCRIPTION: INFLUENT BAR SCREEN BYPASS CHANNEL.



PHOTO #:06 DATE: 02/21/2012
TAKEN BY: MONIKA KANNADAGULI
DESCRIPTION: FLOW MONITORING OVER THE INFLUENT CHANNEL.



PHOTO #:07 DATE: 02/21/2012
TAKEN BY: MONIKA KANNADAGULI
DESCRIPTION: SCREENINGS DISPOSAL.



PHOTO #:08 DATE: 02/21/2012
TAKEN BY: MONIKA KANNADAGULI
DESCRIPTION: ODOR CONTROL SYSTEM.

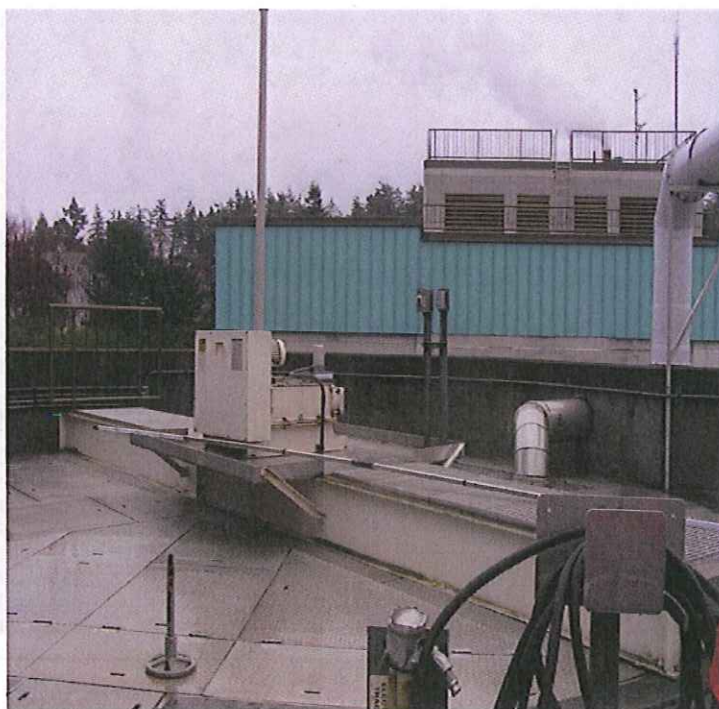
PHOTO ADDENDUM – ANACORTES WWTP

PHOTO #:09 DATE: 02/21/2012
TAKEN BY: MONIKA KANNADAGULI
DESCRIPTION: COVERED PRIMARY CLARIFIER.



PHOTO #:10 DATE: 02/21/2012
TAKEN BY: MONIKA KANNADAGULI
DESCRIPTION: AERATION BASINS.

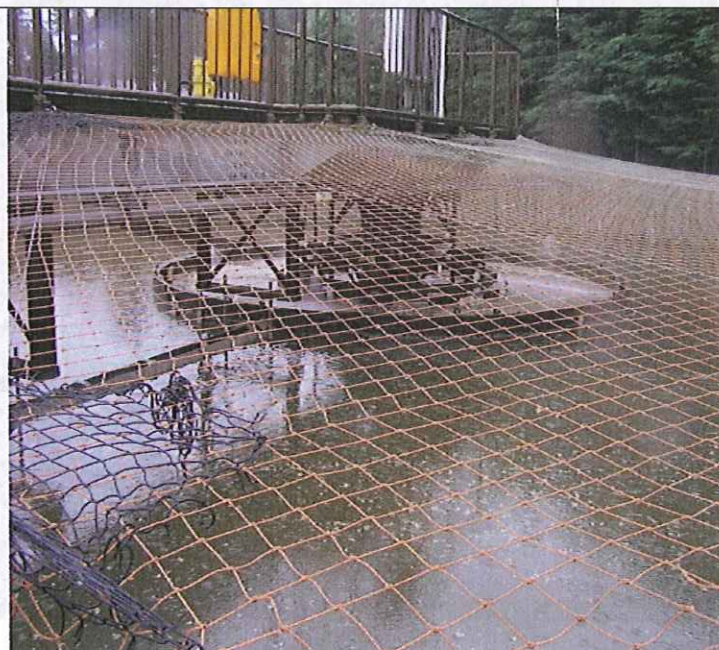


PHOTO #:11 DATE: 02/21/2012
TAKEN BY: MONIKA KANNADAGULI
DESCRIPTION: BIRD NETTING OVER CLARIFIER.



PHOTO #:12 DATE: 02/21/2012
TAKEN BY: MONIKA KANNADAGULI
DESCRIPTION: POLYMER ADDED TO GRAVITY THICKENER.

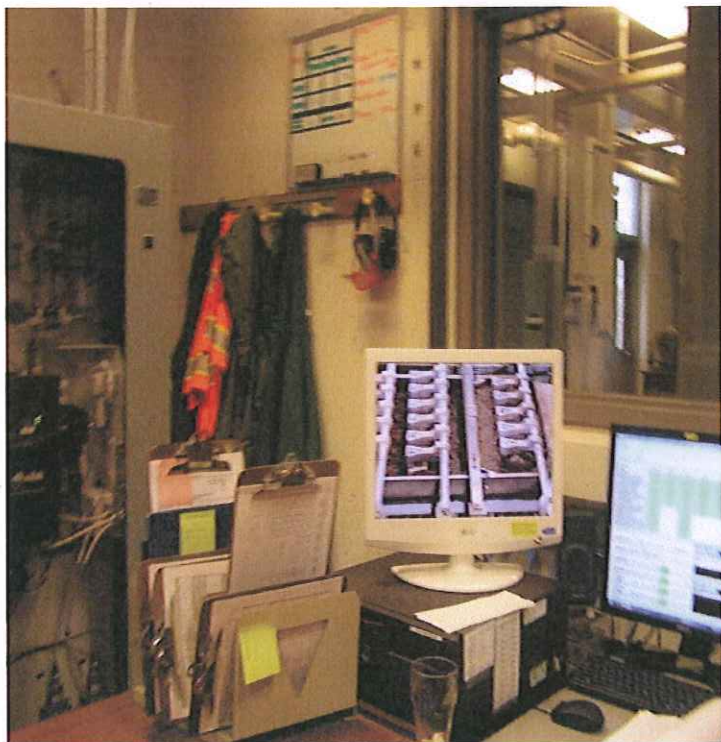
PHOTO ADDENDUM – ANACORTES WWTP

PHOTO #:13 DATE: 02/21/2012
TAKEN BY: MONIKA KANNADAGULI
DESCRIPTION: CONTROL ROOM FOR INCINERATOR OPERATIONS.



PHOTO #:21 DATE: 02/21/2012
TAKEN BY: MONIKA KANNADAGULI
DESCRIPTION: STANDBY GENERATOR.



PHOTO #:15 DATE: 02/21/2012
TAKEN BY: MONIKA KANNADAGULI
DESCRIPTION: DIESEL STORAGE FOR EMERGENCY GENERATOR.



PHOTO #:16 DATE: 02/21/2012
TAKEN BY: MONIKA KANNADAGULI
DESCRIPTION: EFFLUENT GRAB SAMPLE FOR FECAL COLIFORM ANALYSIS.

Manchester Environmental Laboratory
7411 Beach Drive E, Port Orchard, Washington 98366

Case Narrative

February 28, 2012

Project: Microbiology Anacortes Cl. 2

Work Order: 1202024

Project
Manager: LeVander, Lori

By: Nancy Jensen, Microbiologist 2

Summary

The sample was analyzed for fecal coliforms following Standard Methods 9222D.

The analysis requested was evaluated by established regulatory quality assurance guidelines.

Sample Information

The sample was received at the Manchester Laboratory on 2/22/2012. The cooler was received within the proper temperature range of 0°C - 10°C. The sample was received in good condition. The sample was assigned laboratory identification number 1202024-03.

Holding Times

Holding times used at the Manchester Laboratory follow Standard Methods 20th Edition, 9060B. The sample was analyzed within its hold time.

Replicates

The duplicate relative percent difference with plate counts > 20 counts was within the acceptance limits.

Controls

Pre and post filtering blanks were analyzed with each set of samples. The blanks were negative for growth.

Other Quality Assurance Measures and Issues

- J** - The organism was positively identified. The associated numerical result is an estimate.
- U** - The organism was not detected at or above the reported result.
- Bold** - The analyte was present in the sample. (Visual Aid to locate detected organisms on report sheet.)

Please call Nancy Jensen at (360) 871-8810 to further discuss this project.

cc: Project File.

**Washington State Department of Ecology
Manchester Environmental Laboratory
Final Analysis Report for
Fecal Coliforms: Membrane Filter method**

Project Name: Anacortes Cl. 2
Work Order: 1202024
Project Officer: LeVander, Lori

Date Collected: 02/21/2012
Date Analyzed: 02/22/2012

Analyte: Fecal Coliform
Method: SM9222D
Matrix: Water
Units: #/100mL

Sample #	Sample ID	Result	Qualifier	RL	MDL	Time Elapsed	Hold Time	Batch ID
1202024-03	EFF-GRB	72		1		21:04	24:00	B12B141

QC Results for Batch ID: B12B141

Method Blank	Sample ID	Result	Qualifier	RL	Analyzed
B12B141-BLK1	Blank	1	U	1	02/22/12
B12B141-BLK2	Blank	1	U	1	02/22/12

Sample #	QC Sample	Result	Spike Level	Source Sample	Source Result	%Rec	%Rec Limits	RPD	RPD Limit
B12B141-DUP1	Duplicate	60		1202024-03	72			18	40

Authorized by: 

Release Date: 2/28/12

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2/28/2012

Manchester Environmental Laboratory
7411 Beach Drive E, Port Orchard, Washington 98366

Case Narrative

March 9, 2012

Project: General Chemistry Anacortes Cl. 2

Work Order: 1202024

Project
Manager: LeVander, Lori

By: Meredith Jones *MJ*

Summary

The laboratory analyzed the samples following Standard Methods (SM) 2310B for carbonaceous chemical oxygen demand (CBOD), SM2540D for total suspended solids (TSS) and SM5210B for biochemical oxygen demand (BOD).

All analyses requested were evaluated by established regulatory quality assurance guidelines.

Sample Information

The samples were received at the Manchester Laboratory on 2/22/2012. The cooler was received within the proper temperature range of 0°C - 6°C. The samples were received in good condition. Two samples were received and assigned laboratory identification numbers 1202024-01 and 1202024-02.

Holding Times

The laboratory performed all analyses within their hold times.

Calibration

The instrument was calibrated following the appropriate method. All initial and continuing calibration verification checks were within the acceptance limits. Oven and incubator drying temperatures were monitored before and after drying.

Method Blanks

No analytically significant levels of analyte were detected in the method blanks associated with these samples.

Laboratory Control Samples

All laboratory control sample recoveries were within the acceptance limits except for CBOD. The laboratory control sample recoveries for CBOD were less than the upper acceptance limit. All samples results were qualified as estimates.

Replicates

The associated duplicate relative percent differences of samples with concentrations greater than 5 times the reporting limit were within the acceptance limits.

Matrix Spikes

All matrix spike recoveries were within the acceptance limits.

Other Quality Assurance Measures and Issues

TSS sample number 1202024-01 was qualified as an estimate due to the sample being inhomogeneous.

U - The analyte was not detected at or above the reported result.

J - The analyte was positively identified. The associated numerical result is an estimate.

bold - The analyte was present in the sample. (Visual Aid to locate detected compounds on report sheet.)

Please call Meredith Jones at (360) 871-8833 to further discuss this project.

cc: Project File.

**Washington State Department of Ecology
Manchester Environmental Laboratory
Final Analysis Report for
Biochemical Oxygen Demand five day test**

Project Name: Anacortes Cl. 2	Date Collected: 02/21/2012	Analyte: Biochemical Oxygen Demand
Work Order: 1202024	Date Analyzed: 02/23/2012	Method: SM5210B
Project Officer: LeVander, Lori		Matrix: Water
		Units: mg/L

Sample #	Sample ID	Result	Qualifier	RL	MDL	Time Elapsed	Hold Time	Batch ID
1202024-01	INF-001	105		75		47:44	48:00	B12B015

QC Results for Batch ID: B12B015

Method Blank	Sample ID	Result	Qualifier	RL	Analyzed
B12B015-BLK1	Blank	2	U	2	02/23/12

Sample #	QC Sample	Result	Spike Level	Source Sample	Source Result	%Rec	%Rec Limits	RPD	RPD Limit
B12B015-BS1	LCS	139	198			70	70-130		
B12B015-DUP1	Duplicate	105		1202024-01	105			0.1	20

Authorized by: 

Release Date: 3/9/12

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3/9/2012

**Washington State Department of Ecology
Manchester Environmental Laboratory
Final Analysis Report for
Inhibited Biochemical Oxygen Demand**

Project Name: Anacortes Cl. 2	Date Collected: 02/21/2012	Analyte: Inhibited Biochemical Oxygen
Work Order: 1202024	Date Analyzed: 02/23/2012	Method: SM5210B
Project Officer: LeVander, Lori		Matrix: Water
		Units: mg/L

Sample #	Sample ID	Result	Qualifier	RL	MDL	Time Elapsed	Hold Time	Batch ID
1202024-01	INF-001	78	J	4		47:44	48:00	B12B016
1202024-02	EFF-001	12	J	0.6		47:15	48:00	B12B016

QC Results for Batch ID: B12B016

Method Blank	Sample ID	Result	Qualifier	RL	Analyzed
B12B016-BLK1	Blank	0.2	U	0.2	02/23/12

Sample #	QC Sample	Result	Spike Level	Source Sample	Source Result	%Rec	%Rec Limits	RPD	RPD Limit
B12B016-BS1	LCS	104	171			61	70-130		
B12B016-DUP1	Duplicate	10.8		1202024-02	12 J			7	30

Authorized by: 

Release Date: 3/9/12

**Washington State Department of Ecology
Manchester Environmental Laboratory
Final Analysis Report for
Total Suspended Solids**

Project Name: Anacortes Cl. 2
Work Order: 1202024
Project Officer: LeVander, Lori

Date Collected: 02/21/2012
Date Analyzed: 02/22/2012

Analyte: Total Suspended Solids
Method: SM2540D
Matrix: Water
Units: mg/L

Sample #	Sample ID	Result	Qualifier	RL	MDL	Collected	Analyzed	Batch ID
1202024-01	INF-001	144	J	19		02/21/12	02/22/12	B12B144
1202024-02	EFF-001	12		2		02/21/12	02/22/12	B12B144

QC Results for Batch ID: B12B144

Method Blank	Sample ID	Result	Qualifier	RL	Analyzed
B12B144-BLK1	Blank	1	U	1	02/22/12
B12B144-BLK2	Blank	1	U	1	02/22/12

Sample #	QC Sample	Result	Spike Level	Source Sample	Source Result	%Rec	%Rec Limits	RPD	RPD Limit
B12B144-BS1	LCS	49	50.8			97	80-120		
B12B144-DUP1	Duplicate	273		1202056-01	281			3	20
B12B144-DUP2	Duplicate	9		1202004-06	10			10	20

Authorized by: 

Release Date: 3/9/12

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