

Data Report: Organic Water Chemistry for 2005 Storm Events in Support of the Storm Water Studies in Sinclair and Dyes Inlet, Washington

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December 2005

Prepared for the
Puget Sound Naval Shipyard and
Intermediate Maintenance Facility
Project ENVVEST
Bremerton, Washington
under Contract DE-AC06-76RLO 1830

Pacific Northwest National Laboratory
Richland, Washington

Report Documentation Page				Form Approved OMB No. 0704-0188	
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE DEC 2005		2. REPORT TYPE		3. DATES COVERED 00-00-2005 to 00-00-2005	
4. TITLE AND SUBTITLE Data Report: Organic Water Chemistry for 2005 Storm Events in Support of the Storm Water Studies in Sinclair and Dyes Inlet, Washington				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Space and Naval Warfare Systems Center, Marine Environmental Support Office ? Northwest, Bremerton, WA, 98310				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 228	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			

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UNITED STATES DEPARTMENT OF ENERGY
under Contract DE-AC06-76RLO 1830

Printed in the United States of America

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P.O. Box 62, Oak Ridge, TN 37831;
prices available from (615) 576-8401.

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PNNL-15564

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ABSTRACT

Sinclair Inlet and Dyes Inlet were listed on the State of Washington's 1998 Section 303(d) list of impaired waters because of fecal coliform contamination in marine waters and tributary streams, heavy metals and toxic organics in the bottom sediments, and polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyl (PCBs), aldrin, dieldrin, mercury (Hg), and arsenic (As) in the tissues of marine organisms. A cooperative watershed agreement for the inlets was established among the Puget Sound Naval Shipyard (PSNS) and Intermediate Maintenance Facility (IMF); the Environmental Protection Agency (EPA); the Washington State Department of Ecology (Ecology); and other technical stakeholders. The ENVironmental inVESTment group (ENVVEST) was formed to assist regulatory agencies in developing total maximum daily loads (TMDL) and to assess ecological risk within the watershed. ENVVEST identified contaminant loading during storm events as a data gap for the inlets. The 2005 storm water sampling program collected flow and water quality data from selected marine locations, representative streams, storm water outfalls, storm water drainages, and waste water treatment outfalls discharging in the Sinclair and Dyes Inlet watershed during seven winter/spring storm events. Storm event mean samples were analyzed for conventional water quality parameters, metals, and organic contaminants. The 2005 storm water data were reported in a series of three reports: conventional parameters, metals chemistry, and organic contaminants. This report summarizes the 2005 organic contaminants data and quality control sample information.

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OVERVIEW

The Sinclair/Dyes Inlets watershed is located within Kitsap County, Washington. The boundaries of the watershed include the receiving waters of Sinclair and Dyes Inlets, which are connected to the main basin of Puget Sound through two passages. Sinclair Inlet and Dyes Inlets were listed on the State of Washington's 1998 Section 303(d) list of impaired waters because of fecal coliform contamination in marine waters and tributary streams, heavy metals and toxic organics in the bottom sediments, and polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyl (PCBs), aldrin, dieldrin, mercury (Hg), and arsenic (As) in the tissues of marine organisms (Ecology 1998). A cooperative watershed agreement for the inlets was established among the Puget Sound Naval Shipyard (PSNS) and Intermediate Maintenance Facility (IMF); the Environmental Protection Agency (EPA); the Washington State Department of Ecology (Ecology); and other technical stakeholders. These cooperative agreements led to the development of an environmental investment project known as Project ENVVEST. The focus of Project ENVVEST is to assist regulatory agencies in developing total maximum daily loads (TMDL) and assessing ecological risk within the watershed. Project ENVVEST will provide regulatory agencies with data that will help them understand and address sources of pollution coming into the inlets.

One task within the ENVVEST program was the 2005 Storm Event Sampling in the Sinclair and Dyes Inlet Watershed. The objectives of this project were to obtain data to support total loading and modeling analysis of contaminants discharged into Sinclair and Dyes Inlets, to develop preliminary data on contaminant levels in nonpoint source runoff in Gorst to evaluate the potential for developing restoration alternatives, and to assess the impact of storm event runoff on the water quality of the inlets. The data obtained from these sampling efforts will be used to elucidate the interconnection of water quality and watershed hydrology, land use, and land cover. The project focused on collecting flow and water quality data from representative streams, storm water outfalls, storm water drainages, and waste water treatment outfalls discharging in the Sinclair and Dyes Inlet watershed during storm events in winter/spring 2005. Storm water was collected from three regions within the watershed: 1) Gorst (head of Sinclair Inlet), 2) Sinclair Inlet, and

3) Dyes Inlet. In addition to storm water, ambient marine samples were collected following each storm event to assess the impact of storm event runoff on ambient water quality in the inlets.

Storm event sampling was conducted by The Environmental Company (TEC) and PSNS. Samples were collected from qualifying storm events, which were defined as storms resulting in more than 0.25 inches of rain within a 24-hour period, following a discernable period of no rainfall. Storm water samples were collected throughout the storm event using either a portable Isco autosampler (ISCO) programmed to create 3-4-hour composites or discrete grab samples collected at the beginning, middle, and end of each storm. Immediately following the storm event, data from each of the flow monitors were downloaded and processed to produce the storm hydrograph for selected stations. The storm hydrographs along with physical data (temperature, salinity, turbidity and pH) were used to develop a *post-hoc* compositing scheme to best represent storm water flow and to eliminate periods of tidal intrusion and low-to-no flow for each event-mean composite sample. Samples and data were collected for the following regions and storm events:

1. Gorst: 17-18 January 2005
2. Gorst: 22 January 2005
3. Sinclair: 28 February to 1 March 2005
4. Sinclair: 19-20 March 2005
5. Dyes: 26 March, 2005
6. Dyes: 31 March to 1 April 2005
7. Bainbridge Island: 10-11 April 2005.

Samples were composited at Battelle Marine Sciences Laboratory and analyzed for conventional water chemistry parameters, nutrients, metals, and toxic organics to obtain storm event mean concentrations of contaminants. This report summarizes the conventional water chemistry and nutrient data for the 2005 storm water samples. The list of possible water chemistry parameters includes: alkalinity, hardness, total solids (TS), total suspended solids (TSS), total organic carbon (TOC), dissolved organic carbon (DOC), ammonia as nitrogen, nitrate plus nitrite, total nitrogen, and total phosphorus.

For additional project information see the following documents:

- Storm Event Sampling in the Sinclair and Dyes Inlet Watershed: FY2005 Quality Assurance Project Plan – PSNS Project ENVVEST Study Area (TEC 2004a).
- Sampling and Analysis Plan for In-Stream and Storm Water Chemical and Flow Characteristics – PSNS Project ENVVEST Study Area (TEC 2004b).
- Health and Safety Plan for Sampling and Analysis of In-Stream and Storm Water Chemical and Flow Characteristics – PSNS Project ENVVEST Study Area (TEC 2004c).
- Gorst Storm Event 1: Field Sampling Report for the storm on 17-18 January 2005 (TEC 2005a).
- Gorst Storm Event 2: Field Sampling Report for the storm on 22 January 2005 (TEC 2005b).
- Sinclair Storm Event 1: Field Sampling Report for the storm on 28 February – 1 March 2005 (TEC 2005c).
- Sinclair Storm Event 2: Field Sampling Report for the storm on 19-20 March 2005 (TEC 2005d).
- Dyes Storm Event 1: Field Sampling Report for the storm on 26 March 2005 (TEC 2005e).
- Dyes Storm Event 2: Field Sampling Report for the storm on 31 March- 1 April 2005 (TEC 2005f).
- Springbrook Creek Sampling Event: Field Sampling Report for the storm on 10-11 April 2005 (TEC 2005g).

Equipment Blank Results: 2005 Storm Water Organic Contaminants

- PAHs
- PCBs
- QA Narrative

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SINCLAIR AND DYES INLET 2005 STORMWATER

2005 Stormwater Equipment Blank
PAH/Phthalate Results for Water Samples
Reported in ng/L

PAH Results

						naphthalene	2 methyl naphthalene	acenaphthalene	acenaphthene	fluorine	phenanthrene
Surrogate:											
MSL Sample ID	Client ID	Site Description	Collection Date	Extraction Date	Analysis Date	d8 naphthalene	d8 naphthalene	d10 acenaphthene	d10 acenaphthene	d10 acenaphthene	d10 phenanthrene
2318-1	BST12-RB	Equipment Blk	12/3/2004	12/7/2004	1/3/2005	64.3	17.1 J	10.1 U	9.50 U	8.38 U	12.9 U
Blanks											
Method Blank (1)	23181 Blank	--	--	12/7/2004	1/3/2005	8.35 U	10.0 U	12.8 U	12.1 U	10.6 U	16.4 U
Blank Spike Results											
Blank	23181 Blank	--	--	12/7/2004	1/3/2005	8.35 U	10.0 U	12.8 U	12.1 U	10.6 U	16.4 U
Blank Spike A	23181 Blank Spike A	--	--	12/7/2004	1/3/2005	570	570	602	626	647	710 *
Blank Spike B	23181 Blank Spike B	--	--	12/7/2004	1/3/2005	532	532	542	571	571	627
	Spike Concentration					625	625	625	625	625	625
	Percent Recovery A					91%	91%	96%	100%	103%	114%
	Percent Recovery B					85%	85%	87%	91%	91%	100%
LABORATORY REPORTING LIMIT (RL)						20	20	20	20	20	20

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SINCLAIR AND DYES INLET 2005 STORMWATER

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 PAH/Phthalate Results for Water Samples
 Reported in ng/L

				anthracene	fluoranthene	pyrene	benz[a]anthracene	chrysene	benzo[b]fluoranthene
MSL Sample ID	Client ID	Site Description	Collection Date	<i>d10 phenanthrene</i>	<i>d12 chrysene</i>	<i>d12 chrysene</i>	<i>d12 chrysene</i>	<i>d12 chrysene</i>	<i>d12 perylene</i>
2318-1	BST12-RB	Equipment Blk	12/3/2004	9.10 U	14.1 U	14.7 U	12.6 U	13.9 U	12.0 U
Blanks									
Method Blank (1)	23181 Blank	--	--	11.6 U	17.9 U	18.7 U	16.0 U	17.6 U	15.3 U,*
Blank Spike Results									
Blank	23181 Blank	--	--	11.6 U	17.9 U	18.7 U	16.0 U	17.6 U	15.3 U
Blank Spike A	23181 Blank Spike A	--	--	690 *	722 *	721 *	683 *	663 *	617
Blank Spike B	23181 Blank Spike B	--	--	589	606	597	494	476	375
	Spike Concentration			625	625	625	625	625	625
	Percent Recovery A			110%	116%	115%	109%	106%	99%
	Percent Recovery B			94%	97%	95%	79%	76%	60%
LABORATORY REPORTING LIMIT (RL)				20	20	20	20	20	20

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SINCLAIR AND DYES INLET 2005 STORMWATER

2005 Stormwater Equipment Blank
PAH/Phthalate Results for Water Samples
Reported in ng/L

				benzo[k]fluoranthene	benzo[a]pyrene	indeno[1,2,3-c,d]pyrene	dibenz[a,h]anthracene	benzo[g,h,i]perylene
MSL Sample ID	Client ID	Site Description	Collection Date	<i>d12 perylene</i>	<i>d12 perylene</i>	<i>d12 perylene</i>	<i>d12 perylene</i>	<i>d12 perylene</i>
2318-1	BST12-RB	Equipment Blk	12/3/2004	11.4 U	13.6 U	11.2 U	10.6 U	11.3 U
Blanks								
Method Blank (1)	23181 Blank	--	--	14.5 U,*	17.2 U,*	14.3 U,*	13.4 U,*	14.4 U,*
Blank Spike Results								
Blank	23181 Blank	--	--	14.5 U	17.2 U	14.3 U	13.4 U	14.4 U
Blank Spike A	23181 Blank Spike A	--	--	649	561	351	390	360
Blank Spike B	23181 Blank Spike B	--	--	370	351	176	187	196
	Spike Concentration			625	625	625	625	625
	Percent Recovery A			104%	90%	56%	62%	58%
	Percent Recovery B			59%	56%	28% &	30% &	31% &
LABORATORY REPORTING LIMIT (RL)				20	20	20	20	20

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SINCLAIR AND DYES INLET 2005 STORMWATER

2005 Stormwater Equipment Blank
PAH/Phthalate Results for Water Samples

				Phthalate Results		Surrogate Recoveries						
				di-N-butyl phthalate	butylbenzyl phthalate	bis(2- ethylhexyl) phthalate	d8 naphthalene	d10 acenaphthene	d10 phenanthrene	d12 chrysene	d12 perylene	
							(%)	(%)	(%)	(%)	(%)	
MSL Sample ID	Client ID	Site Description	Collection Date	d10 phenanthrene	d12 chrysene	d12 perylene						
2318-1	BST12-RB	Equipment Blk	12/3/2004	439 EB	96.4 EB	424 EB	78%	82%	92%	67%	56%	
Blanks												
Method Blank (1)	23181 Blank	--	--	873 E	191 E	660 E*	88%	96%	95%	60%	39% #	
Blank Spike Results												
Blank	23181 Blank	--	--	873 E	191 E	660 E*	88%	96%	95%	60%	39% #	
Blank Spike A	23181 Blank Spike A	--	--	302 EB*	145 EB*	377 EB	90%	101%	123% #	122% #	108%	
Blank Spike B	23181 Blank Spike B	--	--	310 EB	190 EB	355 EB	78%	86%	99%	76%	60%	
	Spike Concentration			1250	1250	1250						
	Percent Recovery A			NC	NC	NC						
	Percent Recovery B			NC	NC	NC						
LABORATORY REPORTING LIMIT (RL)				40	40	40						

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SINCLAIR AND DYES INLET 2005 STORMWATER
2005 Stormwater Equipment Blank

PCB/Aroclor 1268 Results for Water Samples

MSL Sample ID	Client ID	Site Description	Collection Date	Extraction Date	Analysis Date	Aroclor 1268	PCB008	PCB018	PCB028	PCB052	PCB044	PCB066	PCB101
						(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)
2318-1	BST12-RB	Equipment Blk	12/3/2004	12/7/2004	12/22/2004	25.7 U	1.15 U	0.75 U	0.32 U	1.32 U	0.55 U	0.42 U	0.19 U
Blanks													
Method Blank (1' 23181 Blank		--	--	12/7/2004	12/22/2004	32.6 U	1.15 U	0.75 U	0.32 U	1.32 U	0.55 U	0.42 U	0.19 U
Blank Spike Results													
Blank	23181 Blank	--	--	12/7/2004	12/22/2004	32.6 U	1.15 U	0.75 U	0.32 U	1.32 U	0.55 U	0.42 U	0.19 U
Blank Spike A	23181 Blank Spike A	--	--	12/7/2004	12/22/2004	32.6 U	26.0	27.5	24.8	24.6	24.4	35.7	34.7
Blank Spike B	23181 Blank Spike B	--	--	12/7/2004	12/22/2004	32.6 U	23.8	25.6	23.3	21.6	21.7	29.6	31.1
	Spike Concentration					NS	25.0	25.0	25.0	25.0	25.0	25.0	25.0
	Percent Recovery A					NA	104%	110%	99%	98%	98%	143% &	139% &
	Percent Recovery B					NA	95%	102%	93%	86%	87%	118%	124% &
LABORATORY REPORTING LIMIT (RL)						40	2	2	2	2	2	2	2

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SINCLAIR AND DYES INLET 2005 STORMWATER
2005 Stormwater Equipment Blank

PCB/Aroclor 1268 Results for Water Samples

MSL Sample ID	Client ID	Site Description	Collection Date	PCB077	PCB118	PCB153	PCB105	PCB138	PCB126	PCB187	PCB128	PCB200	PCB180
				(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)
2318-1	BST12-RB	Equipment Blk	12/3/2004	1.52 J	0.23 U	0.17 U	0.17 U	0.18 U	0.37 U	0.36 U	0.29 U	0.40 U	0.32 U
Blanks													
Method Blank (1) 23181 Blank		--	--	0.22 U	0.23 U	0.17 U	0.17 U	0.18 U	0.37 U	0.36 U	0.29 U	0.40 U	0.32 U
Blank Spike Results													
Blank	23181 Blank	--	--	0.22 U	0.23 U	0.17 U	0.17 U	0.18 U	0.37 U	0.36 U	0.29 U	0.40 U	0.32 U
Blank Spike A	23181 Blank Spike A	--	--	34.6	35.1	36.6	35.4	34.3	39.2	37.1	36.3	36.1	27.7
Blank Spike B	23181 Blank Spike B	--	--	28.3	20.9	33.4	29.5	28.9	31.3	31.5	27.7	28.2	18.4
Spike Concentration				25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Percent Recovery A				138% &	140% &	146% &	142% &	137% &	157% &	148% &	145% &	144% &	111%
Percent Recovery B				113%	84%	134% &	118%	116%	125% &	126% &	111%	113%	74%
LABORATORY REPORTING LIMIT (RL)				2	2	2	2	2	2	2	2	2	2

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SINCLAIR AND DYES INLET 2005 STORMWATER

2005 Stormwater Equipment Blank
PCB/Aroclor 1268 Results for Water Samples

MSL Sample ID	Client ID	Site Description	Collection Date	Surrogate Recoveries			
				PCB170	PCB195	PCB103	PCB198
				(ng/L)	(ng/L)	% Recovery	% Recovery
2318-1	BST12-RB	Equipment Blk	12/3/2004	0.35 U	1.12 U	60%	87%
<u>Blanks</u>							
Method Blank (1' 23181 Blank		--	--	0.35 U	1.12 U	70%	120%
<u>Blank Spike Results</u>							
Blank	23181 Blank	--	--	0.35 U	1.12 U	70%	120%
Blank Spike A	23181 Blank Spike A	--	--	32.2	34.6	93%	150% #
Blank Spike B	23181 Blank Spike B	--	--	28.5	28.2	76%	115%
	Spike Concentration			25.0	25.0		
	Percent Recovery A			129% &	138% &		
	Percent Recovery B			114%	113%		
LABORATORY REPORTING LIMIT (RL)				2	2		

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**ORGANIC CHEMISTRY
DATA QUALIFIERS**

SINCLAIR AND DYES INLET 2005 STORMWATER

- U** Not detected at or above DL shown
- J** Concentration less than RL but greater than MDL
- B** Sample concentration is <10x blank
- E** Estimate; see narrative
- NA** Not available/applicable
- NC** Not calculated; see narrative
- NS** Sample not spike for this analyte
- &** Outside Project DQOs for Spike recovery (40-120%) or Replicate Analysis ($\leq 30\%$)
- #** Outside Project DQOs for Surrogate recovery (40-120%)
- *** Associated Surrogate exceeded Project DQO guidelines

QA/QC NARRATIVE

PROJECT: Sinclair and Dyes Inlet Storm Water Study – 2005 Storm Water Study Equipment Blank
PARAMETER: Organics – PAH, Phthalates and PCBs
LABORATORY: Battelle Marine Sciences Laboratory, Sequim, Washington
MATRIX: Equipment Blank Water from the ISCO Sampler

SAMPLE CUSTODY AND PROCESSING: Battelle received equipment blank water collected using the ISCO sampler during a mock deployment at station B-ST12. The sampler collected deionized water over a 17-hour period from 12/02/04 1247 to 12/03/04 0632. All samples were received in good condition. The samples were composited at MSL using equal proportions of each discrete sample. The composite sample was analyzed for organics (PAHs, Phthalates, and PCBs).

Samples were assigned a Battelle Central File (CF) identification number (2318) and were entered into Battelle's sample tracking system.

The following lists information on sample receipt and processing activities:

EVENT	Composite Collection Date	Laboratory Arrival Date	Extraction Date	PAH/ Phthalate Analysis Date	PCB Analysis Date
FY05 Equipment Blank Test	12/02/04 to 12/03/04	12/3/04	12/7/04	1/3/05	12/22/04

QA/QC PROJECT DATA QUALITY OBJECTIVES:

Analyte	Analytical Method	Reporting Limits (ng/L)	MS Range of Recovery	Laboratory Control Sample	Surrogate Spike Recovery
PAH	GC-MS	20	40-120%	40-120%	40-120%
Phthalates	GC-MS	40	40-120%	40-120%	40-120%
PCB Congeners	GC-ECD	2	40-120%	40-120%	40-120%
Aroclor 1268	GC-ECD	40	40-120%	40-120%	40-120%

METHODS: All samples were extracted and analyzed in accordance with the following Battelle methods:

- o *MSL-O-010 Extraction and Cleanup of Water for Semivolatile Organics Following the Surrogate Internal Standard Method.*
- o *MSL-O-008 Operation and Maintenance of Gas Chromatographs (GC) and Gas Chromatograph/Mass Spectrometer (GC/MS) Systems.*
- o *MSL-O-015 Identification and Quantification of Polynuclear Aromatic Hydrocarbons by Gas Chromatography/Mass Spectrometry Following EPA Method 8270B Quality Control Criteria.*
- o *MSL-O-016 Analysis of PCBs and Chlorinated Pesticides by Gas Chromatography with Electron Capture Detection Following EPA METHOD 8080A Quality Control Criteria.*

Results are reported as not blank corrected in units of ng/L for each sample.

HOLDING TIMES: Established holding times of 7 days from collection for the extraction procedure and 40 days from extraction for the analyses were achieved for all samples.

DETECTION LIMITS: Detection limits were determined on a per sample basis and data are flagged (U) using sample specific MDLs. Reporting limits (RL) were established based on a low standard concentration and data are flagged (J) to identify concentrations less than the RL but greater than the MDL.

QAI/QC NARRATIVE

DATA QUALIFIERS:

- U Not detected at or above MDL, sample specific MDL reported
- J Concentration less than RL but greater than MDL
- E Estimate
- & Spiked sample outside control limits of 40-120% recovery; precision <30%
- B Sample concentration is <10x blank
- * Associated Surrogate recovery exceeds control limit (flag applied to samples)
- # Surrogate recovery outside control limits (40-120% - flag applied to surrogate)

METHOD BLANK: *PAHs and Phthalates:*

One method blank was analyzed by extracting one liter of reagent water. Analytes were not detected in the PAH method blank above the MDL. The three phthalate compounds were detected in the blank. The phthalate data are flagged as estimates and data usage should be limited to research evaluation.

PCBs:

One method blank was analyzed by extracting one liter of reagent water. Analytes were not detected in the blank above the RL.

**LABORATORY
CONTROL
SAMPLE/BLANK
SPIKE RECOVERY:**

PAHs and Phthalates:

One set of blank spike/blank spike duplicates was analyzed with the samples. Blank spike samples were within the QC criterion of 40-120% for all PAH compounds with the following exceptions for the blank spike duplicate: indeno[1,2,3-c,d]pyrene (28%), dibenz[a,h]anthracene (30%), and benzo[g,h,i]perylene (31%).

One set of blank spike/blank spike duplicates was prepared and analyzed for bis (2-ethylhexyl) phthalate, di-n-butyl phthalate, and butyl benzyl phthalate. However, due to the detected blanks, recoveries were not calculated. The data are flagged as estimates and data usage should be limited to research evaluation.

PCBs:

One set of blank spike/blank spike duplicates was analyzed with the samples. Due to a high surrogate recovery for blank spike A, several congeners were outside the project QC criterion of 40-120% recovery. Acceptable blank spike recoveries are reported for blank spike B with the exception of PCB101, PCB153, PCB126, and PCB187. The impact to the data is negligible as the recoveries were high and the sample concentrations for these congeners were all less than the MDL.

**LABORATORY
PRECISION:
SURROGATE
RECOVERIES:**

There was insufficient sample available for a MS/MSD pair or a laboratory duplicate.

Surrogates compounds were used to evaluate the recovery of the extraction and clean-up process for the PAHs, phthalates, and PCB congeners.

PAHs and Phthalates:

The percent recovery for the surrogate d12 perylene (39%) was outside the project QC criterion of 40-120% recovery for the method blank. The surrogate was flagged and the associated sample concentrations were flagged. Although the surrogate recovery was low, the data are not impacted as the surrogates for the EB water are within the QC criterion and contained no detectable PAH compounds associated to this surrogate. The percent recoveries for PAH surrogates d10 phenanthrene (123%) and d12 chrysene (122%) were outside the project QC criterion of 40-120%, but meet the SOP QC criterion of 50-150%. The surrogate recovery is flagged (#) and the PCB congeners associated to this surrogate are flagged (*).

PCBs:

The PCB198 surrogate for blank spike A was outside the project QC criterion of 40-120%, but meets the SOP criterion of 50-150% recovery. The data are flagged.

Field Data Summary: 2005 Storm Water Organic Contaminants - PAHs

- Gorst
- Sinclair Inlet
- Dyes Inlet, Wet Season
Baseflow

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SINCLAIR AND DYES INLET 2005 STORMWATER

Gorst Stormwater

PAH/Phthalate Results for Water Samples

Reported in ng/L

PAH Results

							naphthalene	2 methyl naphthalene	acenaphthalene	acenaphthene	fluorine	phenanthrene
Surrogate:												
MSL Sample ID	Client ID	Site Description	Event	Collection Date	Extraction Date	Analysis Date	d8 naphthalene	d8 naphthalene	d10 acenaphthene	d10 acenaphthene	d10 acenaphthene	d10 phenanthrene
2318-60	T1100	LMK136	Storm 1	01/17/05	1/20/2005	2/16/2005	22.8	10.1 U	8.64 U	8.15 U	7.20 U	20.6
2318-62	T1102	GC-SAN	Storm 1	01/17/05	1/20/2005	2/16/2005	16.5 J	8.57 U	7.30 U	6.89 U	6.08 U	9.37 U
2318-63	T1103	AC	Storm 1	01/17/05	1/20/2005	2/16/2005	10.3 J	9.68 U	8.24 U	7.78 U	6.87 U	10.6 U
2318-64 R-1	T1104	LMK122	Storm 1	01/17/05	1/21/2005	2/16/2005	74.8	50.4 E	7.30 U	6.89 U	15.8 J	56.9
2318-65	T1105	LMK038	Storm 1	01/17/05	1/21/2005	2/16/2005	20.0	8.70 U	7.41 U	6.99 U	6.18 U	18.6 J
2318-66	T1106	PO-POBLVD	Storm 1	01/17/05	1/21/2005	2/16/2005	8.60 J	7.98 U	6.80 U	6.42 U	5.66 U	13.2 J
2318-71	T1114	AC-DUP	Storm 1	01/17/05	1/21/2005	2/16/2005	10.2 J	8.57 U	7.30 U	6.89 U	6.08 U	9.37 U
2318-128	T1107	LMK 136	Storm 2	01/22/05	1/26/2005	2/16/2005	10.9 J	8.09 U	6.89 U	6.50 U	5.74 U	8.85 U
2318-129	T1111	LMK 122	Storm 2	01/22/05	1/26/2005	2/16/2005	12.8 J	8.24 U	7.02 U	6.62 U	5.85 U	10.1 J
2318-130	T1112	LMK 038	Storm 2	01/22/05	1/26/2005	2/16/2005	152	32.0 E	7.18 U	6.78 U	5.98 U	9.23 U
2318-131	T1113	PO-POBLVD	Storm 2	01/22/05	1/26/2005	2/16/2005	10.0 J	7.77 U	6.62 U	6.25 U	5.52 U	8.50 U
LABORATORY REPORTING LIMIT (RL)							20	20	20	20	20	20

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SINCLAIR AND DYES INLET 2005 STORMWATER

Gorst Stormwater
PAH/Phthalate Results for Water Samples
Reported in ng/L

					anthracene	fluoranthene	pyrene	benz[a]anthracene	chrysene	benzo[b]fluoranthene	benzo[k]fluoranthene
MSL	Site		Collection		d10		d12		d12		
Sample ID	Client ID	Description	Event	Date	phenanthrene	d12 chrysene	chrysene	d12 chrysene	chrysene	d12 perylene	d12 perylene
2318-60	T1100	LMK136	Storm 1	01/17/05	7.82 U	29.3	31.2	12.9 J	18.7 J	18.1 J	9.81 U
2318-62	T1102	GC-SAN	Storm 1	01/17/05	6.60 U	10.2 U	10.6 U	9.14 U	10.1 U	8.73 U	8.29 U
2318-63	T1103	AC	Storm 1	01/17/05	7.46 U	11.5 U	12.0 U	10.3 U	11.4 U	9.86 U	9.36 U
2318-64 R-1	T1104	LMK122	Storm 1	01/17/05	19.7 J	45.8	10.6 U	18.7 J	47.3	21.5	8.29 U
2318-65	T1105	LMK038	Storm 1	01/17/05	6.71 U	41.0	37.8	12.6 J	22.6	24.4	8.42 U
2318-66	T1106	PO-POBLVD	Storm 1	01/17/05	6.15 U	22.4	27.2	8.51 U	13.1 J	12.4 J	7.72 U
2318-71	T1114	AC-DUP	Storm 1	01/17/05	6.60 U	10.2 U	10.6 U	9.14 U	10.1 U	8.73 U	8.29 U
2318-128	T1107	LMK 136	Storm 2	01/22/05	6.23 U	9.63 U	10.1 U	8.63 U	9.50 U	8.24 U	7.82 U
2318-129	T1111	LMK 122	Storm 2	01/22/05	11.2 J	10.2 J	15.7 J	8.79 U	9.68 U	8.39 U	7.97 U
2318-130	T1112	LMK 038	Storm 2	01/22/05	6.50 U	10.0 U	10.5 U	8.99 U	9.91 U	8.59 U	8.16 U
2318-131	T1113	PO-POBLVD	Storm 2	01/22/05	5.99 U	9.25 U	9.66 U	8.29 U	9.13 U	7.92 U	7.52 U
LABORATORY REPORTING LIMIT (RL)					20	20	20	20	20	20	20

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SINCLAIR AND DYES INLET 2005 STORMWATER
Gorst Stormwater

PAH/Phthalate Results for Water Samples

Reported in ng/L

Phthalate Results

					benzo[a]pyrene	indeno[1,2,3-c,d]pyrene	dibenz[a,h]anthracene	benzo[g,h,i]perylene	di-N-butyl phthalate	butylbenzyl phthalate
MSL	Site		Collection							
Sample ID	Client ID	Description	Event	Date	d12 perylene	d12 perylene	d12 perylene	d12 perylene	d10 phenanthrene	d12 chrysene
2318-60	T1100	LMK136	Storm 1	01/17/05	11.6 U	12.5 J	9.08 U	16.0 J	768 BE	425 BE
2318-62	T1102	GC-SAN	Storm 1	01/17/05	9.83 U	8.16 U	7.67 U	8.20 U	256 BE	140 BE
2318-63	T1103	AC	Storm 1	01/17/05	11.1 U	9.21 U	20.9 B	9.26 U	1375 BE	738 BE
2318-64 R-1	T1104	LMK122	Storm 1	01/17/05	13.9 J	12.0 J	7.67 U	16.8 J	372 BE	240 BE
2318-65	T1105	LMK038	Storm 1	01/17/05	13.7 J	14.5 J	7.79 U	16.2 J	149 BE	179 BE
2318-66	T1106	PO-POBLVD	Storm 1	01/17/05	9.16 U	7.98 J	7.14 U	12.9 J	156 BE	143 BE
2318-71	T1114	AC-DUP	Storm 1	01/17/05	9.83 U	8.16 U	7.67 U	8.20 U	161 BE	113 BE
2318-128	T1107	LMK 136	Storm 2	01/22/05	9.28 U	7.70 U	7.24 U	7.74 U	569 BE	246 BE
2318-129	T1111	LMK 122	Storm 2	01/22/05	9.45 U	7.84 U	7.37 U	7.88 U	673 BE	285 BE
2318-130	T1112	LMK 038	Storm 2	01/22/05	9.67 U	8.03 U	7.55 U	8.07 U	174 BE	168 BE
2318-131	T1113	PO-POBLVD	Storm 2	01/22/05	8.92 U	7.40 U	6.96 U	7.43 U	118 BE	108 BE
LABORATORY REPORTING LIMIT (RL)					20	20	20	20	40	40

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SINCLAIR AND DYES INLET 2005 STORMWATER
Gorst Stormwater

PAH/Phthalate Results for Water Samples

Reported in ng/L

Surrogate Recoveries

					bis(2-ethylhexyl) phthalate	d8 naphthalene	d10 acenaphthene	d10 phenanthrene	d12 chrysene	d12 perylene
						(%)	(%)	(%)	(%)	(%)
MSL	Site		Collection							
Sample ID	Client ID	Description	Event	Date	<i>d12 perylene</i>					
2318-60	T1100	LMK136	Storm 1	01/17/05	3769 BE	85%	96%	111%	106%	106%
2318-62	T1102	GC-SAN	Storm 1	01/17/05	860 BE	82%	94%	102%	94%	97%
2318-63	T1103	AC	Storm 1	01/17/05	1509 BE	75%	82%	89%	82%	82%
2318-64 R-1	T1104	LMK122	Storm 1	01/17/05	2862 BE	63%	75%	83%	79%	82%
2318-65	T1105	LMK038	Storm 1	01/17/05	2411 BE	69%	76%	80%	78%	76%
2318-66	T1106	PO-POBLVD	Storm 1	01/17/05	2658 BE	59%	68%	72%	70%	72%
2318-71	T1114	AC-DUP	Storm 1	01/17/05	1435 BE	62%	66%	71%	65%	62%
2318-128	T1107	LMK 136	Storm 2	01/22/05	1031 BE	60%	63%	73%	71%	68%
2318-129	T1111	LMK 122	Storm 2	01/22/05	2891 BE	64%	65%	79%	82%	77%
2318-130	T1112	LMK 038	Storm 2	01/22/05	1778 BE	58%	61%	70%	67%	68%
2318-131	T1113	PO-POBLVD	Storm 2	01/22/05	870 BE	64%	65%	71%	74%	73%
LABORATORY REPORTING LIMIT (RL)					40					

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SINCLAIR AND DYES INLET 2005 STORMWATER
Sinclair Inlet Stormwater

PAH/Phthalate Results for Water Samples

Reported in ng/L

PAH Results

							2 methyl					
							naphthalene	naphthalene	acenaphthalene	acenaphthene	fluorine	phenanthrene
							Surrogate:					
MSL Sample ID	Client ID	Site Description	Event	Collection Date	Extraction Date	Analysis Date	d8 naphthalene	d8 naphthalene	d10 acenaphthene	d10 acenaphthene	d10 acenaphthene	d10 phenanthrene
2318-232	T1200	BL	Storm 1	03/01/05	03/04/05	3/18/2005	14.8 J	5.68 U	7.26 U	6.85 U	6.05 U	9.32 U
2318-233	T1201	OC	Storm 1	03/01/05	03/04/05	3/18/2005	4.97 U	5.95 U	7.61 U	7.18 U	6.34 U	13.3 J
2318-234	T1202	B-ST28	Storm 1	03/01/05	03/04/05	3/18/2005	25.7	68.3 E	14.1 J	10.5 U	30.0	144
2318-235	T1203	B-ST/CSO16	Storm 1	03/01/05	03/04/05	3/18/2005	18.0 J	7.12 J	8.08 J	8.85 J	15.7 J	144
2318-236	T1204	PSNS015	Storm 1	03/01/05	03/04/05	3/18/2005	19.6 J	15.6 J	6.52 U	6.15 U	9.89 J	38.5
2318-237	T1205	PSNS124	Storm 1	03/01/05	03/04/05	3/18/2005	20.3	8.70 U	11.1 U	10.5 U	9.26 U	28.2
2318-309	T1209	B-ST28	Storm 2	03/20/05	03/23/05	4/30/2005	15.4 J	8.92 J	8.53 U	8.04 U	7.10 U	44.8
2318-310	T1210	B-ST/CSO16	Storm 2	03/20/05	03/23/05	4/30/2005	53.5	35.8 E	14.9 J	18.3 J	32.2	384
2318-311	T1211	PSNS015	Storm 2	03/20/05	03/23/05	4/30/2005	48.0	13.2 J	7.75 U	7.31 U	9.45 J	54.2
2318-312	T1212	PSNS124	Storm 2	03/20/05	03/23/05	4/30/2005	32.4	11.1 U	14.2 U	13.4 U	11.8 U	72.0
2318-320	T1221	B-ST12	Storm 2	03/20/05	03/23/05	4/30/2005	44.2	19.2 J	7.99 U	7.54 U	7.47 J	156
LABORATORY REPORTING LIMIT (RL)							20	20	20	20	20	20

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SINCLAIR AND DYES INLET 2005 STORMWATER

Sinclair Inlet Stormwater
PAH/Phthalate Results for Water Samples
Reported in ng/L

					anthracene	fluoranthene	pyrene	benz[a]anthracene	chrysene	benzo[b]fluoranthene
MSL Sample ID	Client ID	Site Description	Event	Collection Date	d10 phenanthrene	d12 chrysene	d12 chrysene	d12 chrysene	d12 chrysene	d12 perylene
2318-232	T1200	BL	Storm 1	03/01/05	6.57 U	10.1 U	10.6 U	9.09 U	10.0 U	8.68 U
2318-233	T1201	OC	Storm 1	03/01/05	14.9 J	28.5	28.3	10.6 J	18.5 J	18.2 J
2318-234	T1202	B-ST28	Storm 1	03/01/05	15.9 J	240	284	50.7	138	119
2318-235	T1203	B-ST/CSO16	Storm 1	03/01/05	13.5 J	381	312	78.1	169	169
2318-236	T1204	PSNS015	Storm 1	03/01/05	42.5	43.9	47.0	11.2 J	20.6	19.5 J
2318-237	T1205	PSNS124	Storm 1	03/01/05	10.1 U	43.3	29.5	13.9 U	15.3 U	13.3 U
2318-309	T1209	B-ST28	Storm 2	03/20/05	7.71 U	164	160	43.2	89.6	109
2318-310	T1210	B-ST/CSO16	Storm 2	03/20/05	44.4	735	576	200	303	370
2318-311	T1211	PSNS015	Storm 2	03/20/05	7.01 U	68.4	70.7	19.2 J	40.9	36.2
2318-312	T1212	PSNS124	Storm 2	03/20/05	12.8 U	79.0	99.3	18.4 J	32.7	24.7
2318-320	T1221	B-ST12	Storm 2	03/20/05	12.2 J	471	329	117	211	281
LABORATORY REPORTING LIMIT (RL)					20	20	20	20	20	20

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SINCLAIR AND DYES INLET 2005 STORMWATER

Sinclair Inlet Stormwater
PAH/Phthalate Results for Water Samples
Reported in ng/L

					benzo[k]fluoranthene	benzo[a]pyrene	indeno[1,2,3-c,d]pyrene	dibenz[a,h]anthracene	benzo[g,h,i]perylene
MSL Sample ID	Client ID	Site Description	Event	Collection Date	d12 perylene	d12 perylene	d12 perylene	d12 perylene	d12 perylene
2318-232	T1200	BL	Storm 1	03/01/05	8.24 U	9.78 U	8.11 U	7.63 U	8.15 U
2318-233	T1201	OC	Storm 1	03/01/05	8.63 U	10.2 U	12.8 J	12.8 J	14.9 J
2318-234	T1202	B-ST28	Storm 1	03/01/05	36.7	44.6 B	67.5	429	136
2318-235	T1203	B-ST/CSO16	Storm 1	03/01/05	55.4	85.8 B	101	24.5	129
2318-236	T1204	PSNS015	Storm 1	03/01/05	7.52 J	11.3 JB	9.92 J	16.0 J	16.0 J
2318-237	T1205	PSNS124	Storm 1	03/01/05	12.6 U	15.0 U	12.4 U	11.7 U	12.5 U
2318-309	T1209	B-ST28	Storm 2	03/20/05	33.8	52.0 B	66.9	25.6	89.2
2318-310	T1210	B-ST/CSO16	Storm 2	03/20/05	125	216 B	221	42.3	231
2318-311	T1211	PSNS015	Storm 2	03/20/05	9.62 J	20.0 B	21.1	8.14 U	33.0
2318-312	T1212	PSNS124	Storm 2	03/20/05	16.1 U	90.0 B	15.9 U	14.9 U	15.9 U
2318-320	T1221	B-ST12	Storm 2	03/20/05	97.7	145 B	153	28.1	135
LABORATORY REPORTING LIMIT (RL)					20	20	20	20	20

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SINCLAIR AND DYES INLET 2005 STORMWATER
Sinclair Inlet Stormwater

PAH/Phthalate Results for Water Samples
Reported in ng/L

Phthalate Results					Surrogate Recoveries							
					di-N-butyl phthalate	butylbenzyl phthalate	bis (2- ethylhexyl) phthalate	d8 naphthalene	d10 acenaphthene	d10 phenanthrene	d12 chrysene	d12 perylene
								(%)	(%)	(%)	(%)	(%)
MSL Sample ID	Client ID	Site Description	Event	Collection Date	d10 phenanthrene	d12 chrysene	d12 perylene					
2318-232	T1200	BL	Storm 1	03/01/05	721 BE	443 BE	1136 BE	83%	87%	97%	94%	92%
2318-233	T1201	OC	Storm 1	03/01/05	476 BE	425 BE	1405 BE	49%	69%	80%	76%	76%
2318-234	T1202	B-ST28	Storm 1	03/01/05	1037 BE	2103 BE	5785 E	50%	76%	82%	68%	81%
2318-235	T1203	B-ST/CSO16	Storm 1	03/01/05	432 BE	1022 BE	5805 E	49%	72%	77%	65%	73%
2318-236	T1204	PSNS015	Storm 1	03/01/05	390 BE	602 BE	1937 BE	65%	69%	71%	49%	69%
2318-237	T1205	PSNS124	Storm 1	03/01/05	511 BE	2016 BE	3088 BE	69%	75%	84%	63%	82%
2318-309	T1209	B-ST28	Storm 2	03/20/05	634 BE	697 BE	6230 BE	46%	40%	51%	57%	67%
2318-310	T1210	B-ST/CSO16	Storm 2	03/20/05	3307 BE	1167 BE	12041 BE	78%	88%	103%	96%	105%
2318-311	T1211	PSNS015	Storm 2	03/20/05	1560 BE	997 BE	6507 BE	81%	85%	107%	97%	98%
2318-312	T1212	PSNS124	Storm 2	03/20/05	2241 BE	1932 E	5787 BE	73%	75%	99%	95%	88%
2318-320	T1221	B-ST12	Storm 2	03/20/05	770 BE	313 BE	2808 BE	94%	96%	102%	88%	89%
LABORATORY REPORTING LIMIT (RL)					40	40	40					

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SINCLAIR AND DYES INLET 2005 STORMWATER

Dyes Inlet and Springbrook Creek Stormwater

PAH/Phthalate Results for Water Samples

Reported in ng/L

PAH Results

							2 methyl				
							naphthalene	naphthalene	acenaphthalene	acenaphthene	fluorine
							Surrogate:				
MSL Sample ID	Client ID	Site Description	Event	Collection Date	Extraction Date	Analysis Date	d8 naphthalene	d8 naphthalene	d10 acenaphthene	d10 acenaphthene	d10 acenaphthene
2318-374	T1305	SW6	Storm 1	03/27/05	3/29/2005	4/30/2005	20.5	7.77 J	7.35 U	6.93 U	6.12 U
2318-376	T1306	B-ST12	Storm 1	03/27/05	3/29/2005	5/1/2005	9.72 J	4.95 U	6.33 U	5.97 U	5.27 U
2318-380	T1301	BA	Storm 1	03/27/05	3/29/2005	5/1/2005	11.3 J	5.29 U	6.76 U	6.38 U	5.63 U
2318-382 R-1	T1302	CC	Storm 1	03/27/05	3/29/2005	5/1/2005	14.7 J	7.14 U	9.13 U	8.61 U	7.60 U
2318-386	T1304	CH	Storm 1	03/27/05	3/29/2005	5/1/2005	12.6 J	9.01 U	11.5 U	10.9 U	9.59 U
2318-389	T1307	B-ST01	Storm 1	03/27/05	3/29/2005	5/1/2005	18.2 J	33.8	8.76 U	8.26 U	13.0 J
2318-445	T1313	SW6	Storm 2	04/01/05	4/5/2005	5/1/2005	12.5 J	8.10 U	10.4 U	9.77 U	8.62 U
2318-446 R-1	T1314	B-ST12	Storm 2	04/01/05	4/5/2005	5/1/2005	6.30 U	7.55 U	9.65 U	9.10 U	8.04 U
2318-450	T1311	SC	Storm 2	04/01/05	4/5/2005	5/1/2005	9.80 J	5.95 U	7.61 U	7.18 U	6.34 U
2318-452	T1315	B-ST01	Storm 2	04/01/05	4/5/2005	5/1/2005	8.53 J	6.62 U	8.46 U	7.98 U	7.05 U
2318-453 B	T1300	BI-SBC	Make-up Storm	04/11/05	4/13/2005	5/1/2005	11.6 J	5.56 U	7.11 U	6.70 U	5.92 U
2318-504	T1316	BI-SBC	Wet Season Baseflow	03/30/05	4/5/2005	5/1/2005	7.72 J	7.41 U	9.47 U	8.94 U	7.89 U
2318-506	T1318	CC	Wet Season Baseflow	03/30/05	4/5/2005	5/1/2005	11.8 J	10.0 U	12.8 U	12.1 U	10.6 U
2318-508	T1320	CH	Wet Season Baseflow	03/30/05	4/5/2005	5/1/2005	6.42 U	7.69 U	9.83 U	9.27 U	8.19 U
2318-509	T1321	SW6	Wet Season Baseflow	03/30/05	4/5/2005	5/1/2005	17.0 J	4.29 U	5.48 U	5.17 U	4.57 U
2318-510	T1322	B-ST12	Wet Season Baseflow	03/30/05	4/5/2005	5/1/2005	5.52 U	6.62 U	8.46 U	7.98 U	7.05 U
2318-511	T1323	B-ST01	Wet Season Baseflow	03/30/05	4/5/2005	5/1/2005	6.05 U	7.25 U	9.27 U	8.74 U	7.72 U
LABORATORY REPORTING LIMIT (RL)							20	20	20	20	20

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SINCLAIR AND DYES INLET 2005 STORMWATER

Dyes Inlet and Springbrook Creek Stormwater
PAH/Phthalate Results for Water Samples
Reported in ng/L

					phenanthrene	anthracene	fluoranthene	pyrene	benz[a]anthracene	chrysene
MSL Sample ID	Client ID	Site Description	Event	Collection Date	d10 phenanthrene	d10 phenanthrene	d12 chrysene	d12 chrysene	d12 chrysene	d12 chrysene
2318-374	T1305	SW6	Storm 1	03/27/05	112	12.2 J	307	233	64.6	146
2318-376	T1306	B-ST12	Storm 1	03/27/05	132	11.9 J	417	303	115	196
2318-380	T1301	BA	Storm 1	03/27/05	8.68 U	6.12 U	9.45 U	9.87 U	8.47 U	9.32 U
2318-382 R-1	T1302	CC	Storm 1	03/27/05	11.7 U	8.26 U	13.2 J	14.6 J	11.4 U	12.6 U
2318-386	T1304	CH	Storm 1	03/27/05	14.8 U	10.4 U	16.1 U	29.3	14.4 U	15.9 U
2318-389	T1307	B-ST01	Storm 1	03/27/05	44.5	7.92 U	49.3	49.1	12.5 J	26.6
2318-445	T1313	SW6	Storm 2	04/01/05	13.3 U	9.37 U	14.5 U	15.1 U	13.0 U	14.3 U
2318-446 R-1	T1314	B-ST12	Storm 2	04/01/05	59.7	8.73 U	206	148	47.0	97.2
2318-450	T1311	SC	Storm 2	04/01/05	9.77 U	6.88 U	10.6 U	11.1 U	9.52 U	10.5 U
2318-452	T1315	B-ST01	Storm 2	04/01/05	34.0	7.65 U	58.4	85.9	13.7 J	33.7
2318-453 B	T1300	BI-SBC	Make-up Storm	04/11/05	9.13 U	6.43 U	9.93 U	10.4 U	8.90 U	9.80 U
2318-504	T1316	BI-SBC	Wet Season Baseflow	03/30/05	12.2 U	8.57 U	13.2 U	13.8 U	11.9 U	13.1 U
2318-506	T1318	CC	Wet Season Baseflow	03/30/05	16.4 U	11.6 U	17.9 U	18.7 U	16.0 U	17.6 U
2318-508	T1320	CH	Wet Season Baseflow	03/30/05	12.6 U	8.89 U	13.7 U	14.3 U	12.3 U	13.6 U
2318-509	T1321	SW6	Wet Season Baseflow	03/30/05	7.63 J	4.96 U	7.66 U	8.00 U	6.86 U	7.56 U
2318-510	T1322	B-ST12	Wet Season Baseflow	03/30/05	10.9 U	7.65 U	19.6 J	21.3	11.6 J	13.7 J
2318-511	T1323	B-ST01	Wet Season Baseflow	03/30/05	11.9 U	8.38 U	12.9 U	13.5 U	11.6 U	12.8 U
LABORATORY REPORTING LIMIT (RL)					20	20	20	20	20	20

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SINCLAIR AND DYES INLET 2005 STORMWATER

Dyes Inlet and Springbrook Creek Stormwater
PAH/Phthalate Results for Water Samples
Reported in ng/L

					benzo[b]fluoranthene	benzo[k]fluoranthene	benzo[a]pyrene	indeno[1,2,3-c,d]pyrene	dibenz[a,h]anthracene
MSL Sample ID	Client ID	Site Description	Event	Collection Date	d12 perylene	d12 perylene	d12 perylene	d12 perylene	d12 perylene
2318-374	T1305	SW6	Storm 1	03/27/05	180	60.8	86.2	98.0	17.3 J
2318-376	T1306	B-ST12	Storm 1	03/27/05	271	93.2	141	149	27.2
2318-380	T1301	BA	Storm 1	03/27/05	8.09 U	7.68 U	9.11 U	7.56 U	7.10 U
2318-382 R-1	T1302	CC	Storm 1	03/27/05	10.9 U	10.4 U	12.3 U	10.2 U	9.59 U
2318-386	T1304	CH	Storm 1	03/27/05	13.8 U	13.1 U	26.1	12.9 U	12.1 U
2318-389	T1307	B-ST01	Storm 1	03/27/05	29.4	9.94 U	12.6 J	16.8 J	9.20 U
2318-445	T1313	SW6	Storm 2	04/01/05	12.4 U	11.8 U	13.9 U	11.6 U	10.9 U
2318-446 R-1	T1314	B-ST12	Storm 2	04/01/05	127	43.2	59.9	67.2	11.2 J
2318-450	T1311	SC	Storm 2	04/01/05	9.09 U	8.63 U	10.2 U	8.50 U	7.99 U
2318-452	T1315	B-ST01	Storm 2	04/01/05	25.9	9.61 U	130	14.1 J	8.89 U
2318-453 B	T1300	BI-SBC	Make-up Storm	04/11/05	8.50 U	8.07 U	9.57 U	7.94 U	7.47 U
2318-504	T1316	BI-SBC	Wet Season Baseflow	03/30/05	11.3 U	10.8 U	12.8 U	10.6 U	9.95 U
2318-506	T1318	CC	Wet Season Baseflow	03/30/05	15.3 U	14.5 U	17.2 U	14.3 U	13.4 U
2318-508	T1320	CH	Wet Season Baseflow	03/30/05	11.8 U	11.2 U	13.2 U	11.0 U	10.3 U
2318-509	T1321	SW6	Wet Season Baseflow	03/30/05	6.56 U	6.23 U	7.39 U	6.13 U	5.76 U
2318-510	T1322	B-ST12	Wet Season Baseflow	03/30/05	14.9 J	9.61 U	11.4 U	9.46 U	34.9
2318-511	T1323	B-ST01	Wet Season Baseflow	03/30/05	11.1 U	10.5 U	12.5 U	10.4 U	9.74 U
LABORATORY REPORTING LIMIT (RL)					20	20	20	20	20

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SINCLAIR AND DYES INLET 2005 STORMWATER
Dyes Inlet and Springbrook Creek Stormwater

PAH/Phthalate Results for Water Samples

Reported in ng/L

Phthalate Results

					benzo[g,h,i]perylene	di-N-butyl phthalate	butylbenzyl phthalate	bis(2- ethylhexyl) phthalate
MSL Sample ID	Client ID	Site Description	Event	Collection Date	d12 perylene	d10 phenanthrene	d12 chrysene	d12 perylene
2318-374	T1305	SW6	Storm 1	03/27/05	96.0	1293 EB	365 EB	3732 EB
2318-376	T1306	B-ST12	Storm 1	03/27/05	135	752 EB	242 EB	2340 EB
2318-380	T1301	BA	Storm 1	03/27/05	7.59 U	539 EB	89.4 EB	340 EB
2318-382 R-1	T1302	CC	Storm 1	03/27/05	10.2 U	3602 EB	278 EB	1408 EB
2318-386	T1304	CH	Storm 1	03/27/05	12.9 U	981 EB	162 EB	681 EB
2318-389	T1307	B-ST01	Storm 1	03/27/05	20.9	610 EB	322 EB	2033 EB
2318-445	T1313	SW6	Storm 2	04/01/05	11.6 U	992 EB	165 EB	544 EB
2318-446 R-1	T1314	B-ST12	Storm 2	04/01/05	62.2	840 EB	189 EB	2542 EB
2318-450	T1311	SC	Storm 2	04/01/05	8.54 U	371 EB	96.0 EB	751 EB
2318-452	T1315	B-ST01	Storm 2	04/01/05	20.2	754 EB	465 EB	5029 E
2318-453 B	T1300	BI-SBC	Make-up Storm	04/11/05	7.98 U	289 EB	81.4 EB	389 EB
2318-504	T1316	BI-SBC	Wet Season Baseflow	03/30/05	10.6 U	417 EB	133 EB	303 EB
2318-506	T1318	CC	Wet Season Baseflow	03/30/05	14.4 U	674 EB	152 EB	474 EB
2318-508	T1320	CH	Wet Season Baseflow	03/30/05	11.0 U	1099 EB	220 EB	1387 EB
2318-509	T1321	SW6	Wet Season Baseflow	03/30/05	6.16 U	144 EB	60.7 EB	119 EB
2318-510	T1322	B-ST12	Wet Season Baseflow	03/30/05	9.50 U	410 EB	97.5 EB	530 EB
2318-511	T1323	B-ST01	Wet Season Baseflow	03/30/05	10.4 U	244 EB	104 EB	235 EB
LABORATORY REPORTING LIMIT (RL)					20	40	40	40

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SINCLAIR AND DYES INLET 2005 STORMWATER

Dyes Inlet and Springbrook Creek Stormwater
 PAH/Phthalate Results for Water Samples

Surrogate Recoveries

					d8 naphthalene	d10 acenaphthene	d10 phenanthrene	d12 chrysene	d12 perylene
					(%)	(%)	(%)	(%)	(%)
MSL Sample ID	Client ID	Site Description	Event	Collection Date					
2318-374	T1305	SW6	Storm 1	03/27/05	93%	96%	104%	96%	99%
2318-376	T1306	B-ST12	Storm 1	03/27/05	64%	76%	100%	96%	102%
2318-380	T1301	BA	Storm 1	03/27/05	80%	83%	95%	90%	94%
2318-382 R-1	T1302	CC	Storm 1	03/27/05	83%	91%	111%	106%	110%
2318-386	T1304	CH	Storm 1	03/27/05	72%	78%	90%	89%	91%
2318-389	T1307	B-ST01	Storm 1	03/27/05	63%	72%	90%	85%	81%
2318-445	T1313	SW6	Storm 2	04/01/05	77%	85%	105%	103%	107%
2318-446 R-1	T1314	B-ST12	Storm 2	04/01/05	73%	86%	102%	99%	106%
2318-450	T1311	SC	Storm 2	04/01/05	67%	79%	92%	87%	91%
2318-452	T1315	B-ST01	Storm 2	04/01/05	60%	71%	119%	74%	59%
2318-453 B	T1300	BI-SBC	Make-up Storm	04/11/05	65%	73%	79%	74%	78%
2318-504	T1316	BI-SBC	Wet Season Baseflow	03/30/05	64%	73%	94%	94%	95%
2318-506	T1318	CC	Wet Season Baseflow	03/30/05	60%	64%	91%	100%	101%
2318-508	T1320	CH	Wet Season Baseflow	03/30/05	88%	85%	109%	104%	100%
2318-509	T1321	SW6	Wet Season Baseflow	03/30/05	89%	87%	107%	86%	81%
2318-510	T1322	B-ST12	Wet Season Baseflow	03/30/05	90%	93%	112%	87%	85%
2318-511	T1323	B-ST01	Wet Season Baseflow	03/30/05	81%	84%	118%	113%	109%

LABORATORY REPORTING LIMIT (RL)

Field Data Summary: 2005 Storm Water Organic Contaminants - PCBs

- Gorst
- Sinclair Inlet
- Dyes Inlet, Wet Season
Baseflow

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SINCLAIR AND DYES INLET 2005 STORMWATER**Gorst Stormwater**

PCB/Aroclor 1268 Results for Water Samples

MSL Sample ID	Client ID	Site Description	Event	Collection Date	Extraction Date	Analysis Date	Aroclor 1268	PCB008	PCB018	PCB028	PCB052	PCB044	PCB066	PCB101
							(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)
2318-60	T1100	LMK136	Storm 1	01/17/05	1/20/2005	2/18/2005	22.0 U	0.777 U	0.507 U	0.216 U	0.892 U	0.372 U	0.284 U	0.128 U
2318-62	T1102	GC-SAN	Storm 1	01/17/05	1/20/2005	2/18/2005	18.6 U	0.657 U	0.429 U	0.183 U	0.754 U	0.314 U	0.240 U	0.109 U
2318-63	T1103	AC	Storm 1	01/17/05	1/20/2005	2/18/2005	21.0 U	0.742 U	0.484 U	0.206 U	0.852 U	0.355 U	0.271 U	0.123 U
2318-64 R-1	T1104	LMK122	Storm 1	01/17/05	1/21/2005	2/18/2005	18.6 U	7.31	0.429 U	0.183 U	0.754 U	0.314 U	0.240 U	0.109 U
2318-65	T1105	LMK038	Storm 1	01/17/05	1/21/2005	2/18/2005	18.9 U	0.667 U	0.435 U	0.186 U	0.765 U	0.319 U	0.243 U	0.110 U
2318-66	T1106	PO-POBLVD	Storm 1	01/17/05	1/21/2005	2/18/2005	17.3 U	0.612 U	0.399 U	0.170 U	0.702 U	0.293 U	0.223 U	0.101 U
2318-71	T1114	AC-DUP	Storm 1	01/17/05	1/21/2005	2/19/2005	18.6 U	0.657 U	0.429 U	0.183 U	0.754 U	0.314 U	0.240 U	0.109 U
2318-128	T1107	LMK 136	Storm 2	01/22/05	1/26/2005	2/19/2005	17.6 U	0.620 U	0.404 U	0.173 U	0.712 U	0.296 U	0.226 U	0.102 U
2318-129	T1111	LMK 122	Storm 2	01/22/05	1/26/2005	2/19/2005	17.9 U	0.632 U	0.412 U	0.176 U	0.725 U	0.302 U	0.231 U	0.104 U
2318-130	T1112	LMK 038	Storm 2	01/22/05	1/26/2005	2/19/2005	18.3 U	0.646 U	0.421 U	0.180 U	0.742 U	0.309 U	0.236 U	0.107 U
2318-131	T1113	PO-POBLVD	Storm 2	01/22/05	1/26/2005	2/19/2005	16.9 U	0.596 U	0.389 U	0.166 U	0.684 U	0.285 U	0.218 U	0.098 U
LABORATORY REPORTING LIMIT (RL)							40	2	2	2	2	2	2	2

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SINCLAIR AND DYES INLET 2005 STORMWATER
Gorst Stormwater

PCB/Aroclor 1268 Results for Water Samples

MSL Sample ID	Client ID	Site Description	Event	Collection Date	PCB077	PCB118	PCB153	PCB105	PCB138	PCB126	PCB187	PCB128	PCB200	PCB180
					(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)
2318-60	T1100	LMK136	Storm 1	01/17/05	0.149 U	0.155 U	0.115 U	0.115 U	0.122 U	0.250 U	0.243 U	0.196 U	0.270 U	0.216 U
2318-62	T1102	GC-SAN	Storm 1	01/17/05	0.126 U	0.131 U	0.097 U	0.097 U	0.103 U	0.211 U	0.394 J	0.166 U	0.229 U	0.183 U
2318-63	T1103	AC	Storm 1	01/17/05	0.142 U	0.148 U	0.110 U	0.110 U	0.116 U	0.239 U	0.232 U	0.187 U	0.258 U	0.206 U
2318-64 R-1	T1104	LMK122	Storm 1	01/17/05	0.126 U	0.131 U	0.097 U	0.097 U	1.89 J	0.211 U	0.206 U	0.166 U	0.229 U	0.183 U
2318-65	T1105	LMK038	Storm 1	01/17/05	0.128 U	0.133 U	0.099 U	0.099 U	0.104 U	0.214 U	0.209 U	0.168 U	0.232 U	0.186 U
2318-66	T1106	PO-POBLVD	Storm 1	01/17/05	0.117 U	0.122 U	0.090 U	0.090 U	0.096 U	0.197 U	0.191 U	0.154 U	0.213 U	0.170 U
2318-71	T1114	AC-DUP	Storm 1	01/17/05	0.651 J	0.131 U	0.097 U	0.097 U	0.103 U	0.211 U	0.206 U	0.166 U	0.512 J	0.183 U
2318-128	T1107	LMK 136	Storm 2	01/22/05	0.119 U	0.124 U	0.092 U	0.092 U	0.097 U	0.199 U	0.194 U	0.156 U	0.216 U	0.173 U
2318-129	T1111	LMK 122	Storm 2	01/22/05	0.121 U	0.126 U	0.093 U	1.38 J	0.099 U	0.203 U	0.198 U	0.159 U	0.220 U	0.176 U
2318-130	T1112	LMK 038	Storm 2	01/22/05	0.124 U	0.129 U	0.096 U	0.096 U	0.101 U	0.208 U	0.202 U	0.163 U	0.225 U	0.180 U
2318-131	T1113	PO-POBLVD	Storm 2	01/22/05	0.114 U	0.119 U	0.088 U	0.088 U	0.093 U	0.192 U	0.187 U	0.150 U	0.207 U	0.166 U
LABORATORY REPORTING LIMIT (RL)					2	2	2	2	2	2	2	2	2	2

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SINCLAIR AND DYES INLET 2005 STORMWATER**Gorst Stormwater**

PCB/Aroclor 1268 Results for Water Samples

					Surrogate Recoveries			
MSL Sample ID	Client ID	Site Description	Event	Collection Date	PCB170	PCB195	PCB103	PCB198
					(ng/L)	(ng/L)	% Recovery	% Recovery
2318-60	T1100	LMK136	Storm 1	01/17/05	0.236 U	0.757 U	86%	153% #
2318-62	T1102	GC-SAN	Storm 1	01/17/05	0.200 U	0.640 U	84%	140% #
2318-63	T1103	AC	Storm 1	01/17/05	0.226 U	0.723 U	80%	129% #
2318-64 R-1	T1104	LMK122	Storm 1	01/17/05	0.200 U	0.640 U	72%	116%
2318-65	T1105	LMK038	Storm 1	01/17/05	0.203 U	0.649 U	83%	109%
2318-66	T1106	PO-POBLVD	Storm 1	01/17/05	0.186 U	0.596 U	67%	119%
2318-71	T1114	AC-DUP	Storm 1	01/17/05	0.200 U	0.640 U	70%	88%
2318-128	T1107	LMK 136	Storm 2	01/22/05	0.189 U	0.604 U	58%	82%
2318-129	T1111	LMK 122	Storm 2	01/22/05	0.192 U	0.615 U	87%	99%
2318-130	T1112	LMK 038	Storm 2	01/22/05	0.197 U	0.629 U	64%	63%
2318-131	T1113	PO-POBLVD	Storm 2	01/22/05	0.181 U	0.580 U	61%	80%
LABORATORY REPORTING LIMIT (RL)					2	2		

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SINCLAIR AND DYES INLET 2005 STORMWATER**Sinclair Inlet Stormwater**

PCB/Aroclor 1268 Results for Water Samples

							Aroclor 1268	PCB008	PCB018	PCB028	PCB052	PCB044	PCB066	PCB101
MSL	Site													
Sample ID	Client ID	Description	Event	Collection Date	Extraction Date	Analysis Date	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)
2318-232	T1200	BL	Storm 1	03/01/05	03/04/05	03/24/05	18.5 U	0.653 U	0.426 U	0.182 U	0.750 U	0.313 U	0.239 U	0.108 U
2318-233	T1201	OC	Storm 1	03/01/05	03/04/05	03/24/05	19.4 U	0.685 U	0.446 U	0.190 U	0.786 U	0.327 U	0.250 U	0.113 U
2318-234	T1202	B-ST28	Storm 1	03/01/05	03/04/05	03/24/05	28.3 U	1.00 U	0.652 U	0.278 U	1.15 U	0.478 U	0.365 U	0.165 U
2318-235	T1203	B-ST/CSO16	Storm 1	03/01/05	03/04/05	03/24/05	20.2 U	5.75	0.466 U	0.199 U	0.820 U	0.342 U	0.261 U	0.118 U
2318-236	T1204	PSNS015	Storm 1	03/01/05	03/04/05	03/24/05	16.6 U	0.587 U	5.39 B	0.163 U	0.673 U	0.281 U	0.214 U	1.09 J
2318-237	T1205	PSNS124	Storm 1	03/01/05	03/04/05	03/24/05	28.3 U	1.00 U	0.652 U	0.278 U	1.15 U	0.478 U	0.365 U	0.165 U
2318-309	T1209	B-ST28	Storm 2	03/20/05	03/23/05	5/1/2005	21.7 U	3.40 B	0.50 U	0.21 U	0.88 U	0.37 U	0.28 U	0.13 U
2318-310	T1210	B-ST/CSO16	Storm 2	03/20/05	03/23/05	5/1/2005	27.6 U	0.97 U	0.64 U	0.27 U	1.12 U	0.47 U	0.36 U	0.16 U
2318-311	T1211	PSNS015	Storm 2	03/20/05	03/23/05	5/2/2005	19.8 U	0.70 U	0.45 U	0.19 U	0.80 U	0.33 U	0.25 U	0.12 U
2318-312	T1212	PSNS124	Storm 2	03/20/05	03/23/05	5/2/2005	36.2 U	1.28 U	0.83 U	0.36 U	1.47 U	0.61 U	0.47 U	20.5
2318-320	T1221	B-ST12	Storm 2	03/20/05	03/23/05	5/2/2005	20.4 U	0.72 U	0.47 U	0.20 U	0.83 U	0.34 U	0.26 U	0.12 U
LABORATORY REPORTING LIMIT (RL)							40	2	2	2	2	2	2	2

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SINCLAIR AND DYES INLET 2005 STORMWATER

S

Sinclair Inlet Stormwater

PCB/Aroclor 1268 Results for Water Samples

MSL Sample ID	Client ID	Site Description	Event	Collection Date	PCB077	PCB118	PCB153	PCB105	PCB138	PCB126	PCB187	PCB128	PCB200	PCB180
					(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)
2318-232	T1200	BL	Storm 1	03/01/05	0.125 U	0.131 U	0.097 U	0.097 U	0.165 J	0.210 U	0.205 U	0.165 U	0.227 U	0.182 U
2318-233	T1201	OC	Storm 1	03/01/05	0.131 U	0.137 U	0.101 U	0.101 U	0.107 U	0.220 U	0.214 U	0.173 U	0.238 U	0.190 U
2318-234	T1202	B-ST28	Storm 1	03/01/05	0.191 U	0.200 U	0.148 U	0.148 U	0.157 U	0.322 U	0.313 U	0.252 U	0.348 U	0.278 U
2318-235	T1203	B-ST/CSO16	Storm 1	03/01/05	0.137 U	1.80 J	0.106 U	0.106 U	0.112 U	0.230 U	0.224 U	0.499 J	0.248 U	0.199 U
2318-236	T1204	PSNS015	Storm 1	03/01/05	0.112 U	0.117 U	0.087 U	0.936 J	0.092 U	0.189 U	0.184 U	0.148 U	0.204 U	0.163 U
2318-237	T1205	PSNS124	Storm 1	03/01/05	0.191 U	0.200 U	0.148 U	0.148 U	0.157 U	0.322 U	0.313 U	0.252 U	0.348 U	0.278 U
2318-309	T1209	B-ST28	Storm 2	03/20/05	0.15 U	0.15 U	0.11 U	0.11 U	1.74 J	0.25 U	0.24 U	0.19 U	0.27 U	0.21 U
2318-310	T1210	B-ST/CSO16	Storm 2	03/20/05	0.19 U	4.30	9.30	7.46	11.1	0.31 U	0.31 U	1.36 J	0.96 J	0.27 U
2318-311	T1211	PSNS015	Storm 2	03/20/05	0.13 U	0.14 U	0.10 U	0.10 U	0.11 U	0.22 U	0.22 U	0.18 U	0.24 U	0.19 U
2318-312	T1212	PSNS124	Storm 2	03/20/05	0.24 U	11.2	35.8	6.98	45.4	0.41 U	17.2	2.35	6.69	0.36 U
2318-320	T1221	B-ST12	Storm 2	03/20/05	0.14 U	0.14 U	0.11 U	0.11 U	0.11 U	0.23 U	0.23 U	0.18 U	0.25 U	0.20 U
LABORATORY REPORTING LIMIT (RL)					2	2	2	2	2	2	2	2	2	2

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SINCLAIR AND DYES INLET 2005 STORMWATER**Sinclair Inlet Stormwater**

PCB/Aroclor 1268 Results for Water Samples

Surrogate Recoveries

MSL Sample ID	Client ID	Site Description	Event	Collection Date	PCB170	PCB195	PCB103	PCB198
					(ng/L)	(ng/L)	% Recovery	% Recovery
2318-232	T1200	BL	Storm 1	03/01/05	0.199 U	0.636 U	97%	106%
2318-233	T1201	OC	Storm 1	03/01/05	0.208 U	0.667 U	61%	92%
2318-234	T1202	B-ST28	Storm 1	03/01/05	0.304 U	1.13 J	73%	93%
2318-235	T1203	B-ST/CSO16	Storm 1	03/01/05	0.217 U	1.86 J	62%	79%
2318-236	T1204	PSNS015	Storm 1	03/01/05	0.179 U	0.571 U	67%	90%
2318-237	T1205	PSNS124	Storm 1	03/01/05	0.304 U	0.974 U	79%	109%
2318-309	T1209	B-ST28	Storm 2	03/20/05	0.23 U	0.75 U	66%	61%
2318-310	T1210	B-ST/CSO16	Storm 2	03/20/05	0.30 U	0.95 U	98%	110%
2318-311	T1211	PSNS015	Storm 2	03/20/05	0.21 U	0.68 U	101%	91%
2318-312	T1212	PSNS124	Storm 2	03/20/05	16.4	4.63	100%	101%
2318-320	T1221	B-ST12	Storm 2	03/20/05	0.22 U	0.70 U	78%	91%

LABORATORY REPORTING LIMIT (RL)**2****2**

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SINCLAIR AND DYES INLET 2005 STORMWATER
Dyes Inlet and Springbrook Creek Stormwater

PCB/Aroclor 1268 Results for Water Samples

MSL Sample ID	Client ID	Site Description	Event	Collection Date	Extraction Date	Analysis Date	Aroclor 1268	PCB008	PCB018	PCB028	PCB052	PCB044	PCB066
							(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)
2318-374	T1305	SW6	Storm 1	03/27/05	3/29/2005	5/2/2005	18.7 U	0.66 U	4.85	0.18 U	0.76 U	10.1	0.24 U
2318-376	T1306	B-ST12	Storm 1	03/27/05	3/29/2005	5/2/2005	16.1 U	0.57 U	0.37 U	0.16 U	0.65 U	0.27 U	0.21 U
2318-380	T1301	BA	Storm 1	03/27/05	3/29/2005	5/2/2005	17.2 U	0.61 U	0.40 U	0.17 U	0.70 U	0.29 U	0.22 U
2318-382 R-1	T1302	CC	Storm 1	03/27/05	3/29/2005	5/2/2005	23.3 U	0.82 U	0.54 U	0.23 U	0.94 U	0.39 U	0.30 U
2318-386	T1304	CH	Storm 1	03/27/05	3/29/2005	5/2/2005	29.4 U	1.04 U	0.68 U	0.29 U	1.19 U	0.50 U	0.38 U
2318-389	T1307	B-ST01	Storm 1	03/27/05	3/29/2005	5/3/2005	22.3 U	0.79 U	0.51 U	0.22 U	0.90 U	0.38 U	0.29 U
2318-445	T1313	SW6	Storm 2	04/01/05	4/5/2005	5/3/2005	26.4 U	0.93 U	0.61 U	0.26 U	1.07 U	0.45 U	0.34 U
2318-446 R-1	T1314	B-ST12	Storm 2	04/01/05	4/5/2005	5/3/2005	24.6 U	0.87 U	0.57 U	0.24 U	1.00 U	0.42 U	0.32 U
2318-450	T1311	SC	Storm 2	04/01/05	4/5/2005	5/3/2005	19.4 U	0.68 U	0.45 U	0.19 U	0.79 U	0.33 U	0.25 U
2318-452	T1315	B-ST01	Storm 2	04/01/05	4/5/2005	5/3/2005	21.6 U	0.76 U	0.50 U	0.21 U	0.87 U	0.36 U	0.28 U
2318-453 B	T1300	BI-SBC	Make-up Storm	04/11/05	4/13/2005	5/3/2005	18.1 U	0.64 U	0.42 U	0.18 U	0.73 U	0.31 U	0.23 U
2318-504	T1316	BI-SBC	Wet Season Baseflow	03/30/05	4/5/2005	5/3/2005	24.1 U	0.85 U	0.56 U	0.24 U	0.98 U	0.41 U	0.31 U
2318-506	T1318	CC	Wet Season Baseflow	03/30/05	4/5/2005	5/3/2005	32.6 U	1.15 U	0.75 U	0.32 U	1.32 U	0.55 U	0.42 U
2318-508	T1320	CH	Wet Season Baseflow	03/30/05	4/5/2005	5/4/2005	25.1 U	0.88 U	0.58 U	0.25 U	1.02 U	0.42 U	0.32 U
2318-509	T1321	SW6	Wet Season Baseflow	03/30/05	4/5/2005	5/4/2005	14.0 U	0.49 U	0.32 U	0.14 U	0.57 U	0.24 U	0.18 U
2318-510	T1322	B-ST12	Wet Season Baseflow	03/30/05	4/5/2005	5/4/2005	21.6 U	0.76 U	0.50 U	0.21 U	0.87 U	0.36 U	0.28 U
2318-511	T1323	B-ST01	Wet Season Baseflow	03/30/05	4/5/2005	5/4/2005	23.6 U	0.83 U	0.54 U	0.23 U	0.96 U	0.40 U	0.30 U
LABORATORY REPORTING LIMIT (RL)							40	2	2	2	2	2	2

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SINCLAIR AND DYES INLET 2005 STORMWATER
Dyes Inlet and Springbrook Creek Stormwater

PCB/Aroclor 1268 Results for Water Samples

MSL Sample ID	Client ID	Site Description	Event	Collection Date	PCB101	PCB077	PCB118	PCB153	PCB105	PCB138	PCB126	PCB187	PCB128
					(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)
2318-374	T1305	SW6	Storm 1	03/27/05	3.90	0.55 J	0.13 U	0.10 U	0.10 U	0.10 U	0.21 U	0.21 U	0.17 U
2318-376	T1306	B-ST12	Storm 1	03/27/05	0.09 U	0.11 U	0.11 U	0.08 U	0.08 U	0.09 U	0.18 U	0.18 U	0.14 U
2318-380	T1301	BA	Storm 1	03/27/05	0.10 U	0.12 U	0.12 U	0.09 U	0.09 U	0.10 U	0.20 U	0.19 U	0.15 U
2318-382 R-1	T1302	CC	Storm 1	03/27/05	0.27 J	0.16 U	0.16 U	0.12 U	0.12 U	0.13 U	0.26 U	0.26 U	0.21 U
2318-386	T1304	CH	Storm 1	03/27/05	0.17 U	0.20 U	0.21 U	0.15 U	0.15 U	0.16 U	0.33 U	0.68 J	0.26 U
2318-389	T1307	B-ST01	Storm 1	03/27/05	0.13 U	0.15 U	0.70 J	0.12 U	0.12 U	0.52 J	0.25 U	0.25 U	0.20 U
2318-445	T1313	SW6	Storm 2	04/01/05	0.34 JB	0.18 U	0.19 U	0.14 U	0.14 U	0.15 U	0.30 U	0.29 U	0.23 U
2318-446 R-1	T1314	B-ST12	Storm 2	04/01/05	0.14 U	0.42 J	0.17 U	0.13 U	0.81 J	0.14 U	0.28 U	0.27 U	0.22 U
2318-450	T1311	SC	Storm 2	04/01/05	0.11 U	0.13 U	0.14 U	0.10 U	0.10 U	0.11 U	0.22 U	0.21 U	0.17 U
2318-452	T1315	B-ST01	Storm 2	04/01/05	0.13 U	0.15 U	0.15 U	0.11 U	0.11 U	0.12 U	0.25 U	0.27 J	0.19 U
2318-453 B	T1300	BI-SBC	Make-up Storm	04/11/05	0.11 U	0.12 U	0.13 U	0.09 U	0.09 U	0.10 U	0.21 U	0.20 U	0.16 U
2318-504	T1316	BI-SBC	Wet Season Baseflow	03/30/05	0.14 U	0.16 U	0.17 U	0.13 U	0.13 U	0.13 U	0.27 U	0.27 U	0.21 U
2318-506	T1318	CC	Wet Season Baseflow	03/30/05	0.19 U	0.22 U	0.23 U	0.17 U	0.17 U	0.18 U	0.37 U	0.36 U	0.29 U
2318-508	T1320	CH	Wet Season Baseflow	03/30/05	0.15 U	0.17 U	0.18 U	0.13 U	0.13 U	0.14 U	0.29 J	0.63 J	0.22 U
2318-509	T1321	SW6	Wet Season Baseflow	03/30/05	0.08 U	0.09 U	0.10 U	0.07 U	0.07 U	0.08 U	0.16 U	0.33 J	0.12 U
2318-510	T1322	B-ST12	Wet Season Baseflow	03/30/05	0.13 U	0.15 U	0.15 U	0.11 U	0.11 U	0.12 U	0.25 U	0.99 J	0.19 U
2318-511	T1323	B-ST01	Wet Season Baseflow	03/30/05	0.14 U	0.16 U	0.17 U	0.12 U	0.12 U	0.98 J	0.27 U	0.26 U	0.21 U
LABORATORY REPORTING LIMIT (RL)					2	2	2	2	2	2	2	2	2

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SINCLAIR AND DYES INLET 2005 STORMWATER
Dyes Inlet and Springbrook Creek Stormwater

PCB/Aroclor 1268 Results for Water Samples

MSL Sample ID	Client ID	Site Description	Event	Collection Date	Surrogate Recoveries					
					PCB200 (ng/L)	PCB180 (ng/L)	PCB170 (ng/L)	PCB195 (ng/L)	PCB103 % Recovery	PCB198 % Recovery
2318-374	T1305	SW6	Storm 1	03/27/05	0.23 U	0.18 U	0.20 U	0.64 U	90%	103%
2318-376	T1306	B-ST12	Storm 1	03/27/05	0.20 U	0.16 U	0.17 U	0.55 U	91%	113%
2318-380	T1301	BA	Storm 1	03/27/05	0.21 U	0.17 U	0.19 U	0.59 U	88%	100%
2318-382 R-1	T1302	CC	Storm 1	03/27/05	0.29 U	0.23 U	0.25 U	0.80 U	95%	112%
2318-386	T1304	CH	Storm 1	03/27/05	0.36 U	0.29 U	0.32 U	1.01 U	85%	91%
2318-389	T1307	B-ST01	Storm 1	03/27/05	0.27 U	0.22 U	0.24 U	0.77 U	80%	90%
2318-445	T1313	SW6	Storm 2	04/01/05	0.32 U	0.26 U	0.28 U	0.91 U	91%	104%
2318-446 R-1	T1314	B-ST12	Storm 2	04/01/05	0.30 U	0.24 U	0.26 U	0.85 U	102%	100%
2318-450	T1311	SC	Storm 2	04/01/05	0.24 U	0.19 U	0.21 U	0.67 U	98%	100%
2318-452	T1315	B-ST01	Storm 2	04/01/05	0.33 J	0.21 U	0.23 U	0.74 U	80%	76%
2318-453 B	T1300	BI-SBC	Make-up Storm	04/11/05	0.22 U	0.18 U	0.19 U	0.62 U	77%	79%
2318-504	T1316	BI-SBC	Wet Season Baseflow	03/30/05	0.30 U	0.24 U	0.26 U	0.83 U	92%	94%
2318-506	T1318	CC	Wet Season Baseflow	03/30/05	1.44 J	0.32 U	0.35 U	1.12 U	105%	104%
2318-508	T1320	CH	Wet Season Baseflow	03/30/05	0.31 U	0.25 U	0.27 U	0.86 U	100%	99%
2318-509	T1321	SW6	Wet Season Baseflow	03/30/05	0.17 U	0.14 U	0.15 U	0.48 U	45%	67%
2318-510	T1322	B-ST12	Wet Season Baseflow	03/30/05	0.53 J	0.21 U	0.23 U	0.74 U	38% #	71%
2318-511	T1323	B-ST01	Wet Season Baseflow	03/30/05	0.29 U	0.23 U	0.25 U	0.81 U	53%	99%
LABORATORY REPORTING LIMIT (RL)					2	2	2	2		

QC Sample Results: 2005 Storm Water Organic Contaminants - PAHs

- Gorst
- Sinclair Inlet
- Dyes Inlet, Wet Season
Baseflow

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SINCLAIR AND DYES INLET 2005 STORMWATER
QC Summary - Gorst Stormwater

PAH/Phthalate Results for Water Samples

Reported in ng/L

PAH Results

							2 methyl				
							naphthalene	naphthalene	acenaphthalene	acenaphthene	fluorine
							Surrogate:				
MSL Sample ID	Client ID	Site Description	Event	Collection Date	Extraction Date	Analysis Date	d8 naphthalene	d8 naphthalene	d10 acenaphthene	d10 acenaphthene	d10 acenaphthene
LABORATORY REPORTING LIMIT (RL)							20	20	20	20	20
Blanks											
Method Blank (2)	23182 Blank A	--	--	1/20/2005	2/16/2005		8.35 U	15.0 U	12.8 U	12.1 U	10.6 U
Method Blank (3)	23182 Blank B	--	--	1/21/2005	2/16/2005		8.35 U	15.0 U	12.8 U	12.1 U	10.6 U
Method Blank (4)	23182 Blank C	--	--	1/26/2005	2/16/2005		8.35 U	15.0 U	12.8 U	12.1 U	10.6 U
Mean Blank											
10x Mean Blank											
Blank Spike Results											
Blank	23182 Blank A	--	--	1/20/2005	2/16/2005		8.35 U	15.0 U	12.8 U	12.1 U	10.6 U
Blank Spike A	23182 Blank Spike A	--	--	1/20/2005	2/16/2005		964	483	1028	1048	1154
Spike Concentration							1250	1250	1250	1250	1250
Percent Recovery A							77%	39% &	82%	84%	92%
Blank	23182 Blank B	--	--	1/21/2005	2/16/2005		8.35 U	15.0 U	12.8 U	12.1 U	10.6 U
Blank Spike B	23182 Blank Spike B	--	--	1/21/2005	2/16/2005		692	347	726	742	788
Spike Concentration							1250	1250	1250	1250	1250
Percent Recovery B							55%	28% &	58%	59%	63%
Blank	23182 Blank C	--	--	1/26/2005	2/16/2005		8.35 U	15.0 U	12.8 U	12.1 U	10.6 U
Blank Spike C	23182 Blank Spike C	--	--	1/26/2005	2/16/2005		451	222	479	480	501
Blank Spike D	23182 Blank Spike D	--	--	1/26/2005	2/16/2005		356	168	378	389	465
Spike Concentration							625	625	625	625	625
Percent Recovery C							72%	36% &	77%	77%	80%
Percent Recovery D							57%	27% &	61%	62%	74%

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SINCLAIR AND DYES INLET 2005 STORMWATER
QC Summary - Gorst Stormwater

PAH/Phthalate Results for Water Samples

Reported in ng/L

PAH Results

							2 methyl				
							naphthalene	naphthalene	acenaphthalene	acenaphthene	fluorine
							Surrogate:				
MSL Sample ID	Client ID	Site Description	Event	Collection Date	Extraction Date	Analysis Date	d8 naphthalene	d8 naphthalene	d10 acenaphthene	d10 acenaphthene	d10 acenaphthene
Matrix Spike Results											
2318-63	T1103	AC	Storm 1	01/17/05	1/20/2005	2/16/2005	10.3 J	9.68 U	8.24 U	7.78 U	6.87 U
2318-63 Spk A	Spike A	AC		01/17/05	1/20/2005	2/16/2005	1121	543	1159	1167	1206
2318-63 Spk B	Spike B	AC		01/17/05	1/20/2005	2/16/2005	1120	560	1172	1209	1258
	Spike Concentration						1250	1250	1250	1250	1250
	Percent Recovery MS						89%	43%	93%	93%	96%
	Percent Recovery MSD						89%	45%	94%	97%	101%
	RPD						0%	3%	1%	3%	4%
Laboratory Duplicate Results											
2318-64 R-1	T1104	LMK122	Storm 1	01/17/05	1/21/2005	2/16/2005	74.8	50.4	7.30 U	6.89 U	15.8 J
2318-64 R-2	T1104	LMK122	Storm 1	01/17/05	1/21/2005	2/16/2005	75.1	49.3	7.30 U	6.89 U	14.7 J
	RPD						0%	2%	NA	NA	7%

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SINCLAIR AND DYES INLET 2005 STORMWATER

QC Summary - Gorst Stormwater
PAH/Phthalate Results for Water Samples
Reported in ng/L

					phenanthrene	anthracene	fluoranthene	pyrene	benz[a]anthracene	chrysene
MSL Sample ID	Client ID	Site Description	Event	Collection Date	d10 phenanthrene	d10 phenanthrene	d12 chrysene	d12 chrysene	d12 chrysene	d12 chrysene
LABORATORY REPORTING LIMIT (RL)					20	20	20	20	20	20
Blanks										
Method Blank (2)	23182 Blank A	--	--	--	16.4 U	11.6 U	17.9 U	18.7 U	16.0 U	17.6 U
Method Blank (3)	23182 Blank B	--	--	--	16.4 U	11.6 U	17.9 U	18.7 U	16.0 U	17.6 U
Method Blank (4)	23182 Blank C	--	--	--	16.4 U	11.6 U	17.9 U	18.7 U	16.0 U	17.6 U
<i>Mean Blank</i>										
<i>10x Mean Blank</i>										
Blank Spike Results										
Blank	23182 Blank A	--	--	--	16.4 U	11.6 U	17.9 U	18.7 U	16.0 U	17.6 U
Blank Spike A	23182 Blank Spike A	--	--	--	1279	1257	1338	1441	1465	1321
Spike Concentration					1250	1250	1250	1250	1250	1250
Percent Recovery A					102%	101%	107%	115%	117%	106%
Blank	23182 Blank B	--	--	--	16.4 U	11.6 U	17.9 U	18.7 U	16.0 U	17.6 U
Blank Spike B	23182 Blank Spike B	--	--	--	832	869	985	937	1015	927
Spike Concentration					1250	1250	1250	1250	1250	1250
Percent Recovery B					67%	69%	79%	75%	81%	74%
Blank	23182 Blank C	--	--	--	16.4 U	11.6 U	17.9 U	18.7 U	16.0 U	17.6 U
Blank Spike C	23182 Blank Spike C	--	--	--	520	535	613	587	605	562
Blank Spike D	23182 Blank Spike D	--	--	--	522	537	611	583	633	567
Spike Concentration					625	625	625	625	625	625
Percent Recovery C					83%	86%	98%	94%	97%	90%
Percent Recovery D					83%	86%	98%	93%	101%	91%

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SINCLAIR AND DYES INLET 2005 STORMWATER

QC Summary - Gorst Stormwater
PAH/Phthalate Results for Water Samples
Reported in ng/L

					phenanthrene	anthracene	fluoranthene	pyrene	benz[a]anthracene	chrysene
MSL Sample ID	Client ID	Site Description	Event	Collection Date	d10 phenanthrene	d10 phenanthrene	d12 chrysene	d12 chrysene	d12 chrysene	d12 chrysene
Matrix Spike Results										
2318-63	T1103	AC	Storm 1	01/17/05	10.6 U	7.46 U	11.5 U	12.0 U	10.3 U	11.4 U
2318-63 Spk A	Spike A	AC		01/17/05	1215	1302	1427	1324	1428	1272
2318-63 Spk B	Spike B	AC		01/17/05	1276	1355	1487	1385	1514	1337
	Spike Concentration				1250	1250	1250	1250	1250	1250
	Percent Recovery MS				97%	104%	114%	106%	114%	102%
	Percent Recovery MSD				102%	108%	119%	111%	121% &	107%
	RPD				5%	4%	4%	5%	6%	5%
Laboratory Duplicate Results										
2318-64 R-1	T1104	LMK122	Storm 1	01/17/05	56.9	19.7 J	45.8	10.6 U	18.7 J	47.3
2318-64 R-2	T1104	LMK122	Storm 1	01/17/05	25.2	6.60 U	41.0	49.6	18.0 J	21.2
	RPD				77% &	NA	11%	NA	4%	76% &

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					benzo[b]fluoranthene	benzo[k]fluoranthene	benzo[a]pyrene	indeno[1,2,3-c,d]pyrene	dibenz[a,h]anthracene
MSL Sample ID	Client ID	Site Description	Event	Collection Date	d12 perylene	d12 perylene	d12 perylene	d12 perylene	d12 perylene
LABORATORY REPORTING LIMIT (RL)					20	20	20	20	20
Blanks									
Method Blank (2)	23182 Blank A	--	--	--	15.3 U	14.5 U	17.2 U	14.3 U	51.8
Method Blank (3)	23182 Blank B	--	--	--	15.3 U	14.5 U	17.2 U	14.3 U	13.4 U
Method Blank (4)	23182 Blank C	--	--	--	15.3 U	14.5 U	17.2 U	14.3 U	13.4 U
Mean Blank									17 J
10x Mean Blank									
Blank Spike Results									
Blank	23182 Blank A	--	--	--	15.3 U	14.5 U	17.2 U	14.3 U	51.8
Blank Spike A	23182 Blank Spike A	--	--	--	1352	1316	1282	1409	1290
Spike Concentration					1250	1250	1250	1250	1250
Percent Recovery A					108%	105%	103%	113%	99%
Blank	23182 Blank B	--	--	--	15.3 U	14.5 U	17.2 U	14.3 U	13.4 U
Blank Spike B	23182 Blank Spike B	--	--	--	965	974	939	1020	922
Spike Concentration					1250	1250	1250	1250	1250
Percent Recovery B					77%	78%	75%	82%	74%
Blank	23182 Blank C	--	--	--	15.3 U	14.5 U	17.2 U	14.3 U	13.4 U
Blank Spike C	23182 Blank Spike C	--	--	--	563	573	557	639	542
Blank Spike D	23182 Blank Spike D	--	--	--	585	564	530	624	543
Spike Concentration					625	625	625	625	625
Percent Recovery C					90%	92%	89%	102%	87%
Percent Recovery D					94%	90%	85%	100%	87%

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					benzo[b]fluoranthene	benzo[k]fluoranthene	benzo[a]pyrene	indeno[1,2,3-c,d]pyrene	dibenz[a,h]anthracene
MSL Sample ID	Client ID	Site Description	Event	Collection Date	d12 perylene	d12 perylene	d12 perylene	d12 perylene	d12 perylene
Matrix Spike Results									
2318-63	T1103	AC	Storm 1	01/17/05	9.86 U	9.36 U	11.1 U	9.21 U	20.9
2318-63 Spk A	Spike A	AC		01/17/05	1381	1351	1305	1401	1312
2318-63 Spk B	Spike B	AC		01/17/05	1404	1384	1358	1490	1339
	Spike Concentration				1250	1250	1250	1250	1250
	Percent Recovery MS				110%	108%	104%	112%	103%
	Percent Recovery MSD				112%	111%	109%	119%	105%
	RPD				2%	2%	4%	6%	2%
Laboratory Duplicate Results									
2318-64 R-1	T1104	LMK122	Storm 1	01/17/05	21.5	8.29 U	13.9 J	12.0 J	7.67 U
2318-64 R-2	T1104	LMK122	Storm 1	01/17/05	19.9 J	8.29 U	12.2 J	10.7 J	7.67 U
	RPD				8%	NA	13%	12%	NA

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Phthalate Results

					benzo[g,h,i]perylene	di-N-butyl phthalate	butylbenzyl phthalate	bis(2-ethylhexyl) phthalate
MSL Sample ID	Client ID	Site Description	Event	Collection Date	<i>d12 perylene</i>	<i>d10 phenanthrene</i>	<i>d12 chrysene</i>	<i>d12 perylene</i>
LABORATORY REPORTING LIMIT (RL)					20	40	40	40
Blanks								
Method Blank (2)	23182 Blank A	--		--	14.4 U	806 E	443 E	1400 E
Method Blank (3)	23182 Blank B	--		--	14.4 U	173 E	175 E	5321 E
Method Blank (4)	23182 Blank C	--		--	14.4 U	196 E	192 E	917 E
	<i>Mean Blank</i>					392	270	2546
	<i>10x Mean Blank</i>					3919	2702	25460
Blank Spike Results								
Blank	23182 Blank A	--		--	14.4 U	806 E	443 E	1400 E
Blank Spike A	23182 Blank Spike A	--		--	1352	4568 E	4770 E	5729 EB
	Spike Concentration				1250	2500	2500	2500
	Percent Recovery A				108%	150% &	173% &	173% &
Blank	23182 Blank B	--		--	14.4 U	173 E	175 E	5321 E
Blank Spike B	23182 Blank Spike B	--		--	995	2430 EB	3028 E	5313 EB
	Spike Concentration				1250	2500	2500	2500
	Percent Recovery B				80%	90%	114%	NC
Blank	23182 Blank C	--		--	14.4 U	196 E	192 E	917 E
Blank Spike C	23182 Blank Spike C	--		--	591	1732 EB	2294 EB	3347 EB
Blank Spike D	23182 Blank Spike D	--		--	589	1566 EB	2105 EB	2079 EB
	Spike Concentration				625	1250	1250	1250
	Percent Recovery C				95%	123% &	168% &	194% &
	Percent Recovery D				94%	110%	153% &	93%

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Phthalate Results

					benzo[g,h,i]perylene	di-N-butyl phthalate	butylbenzyl phthalate	bis(2-ethylhexyl) phthalate
MSL Sample ID	Client ID	Site Description	Event	Collection Date	<i>d12 perylene</i>	<i>d10 phenanthrene</i>	<i>d12 chrysene</i>	<i>d12 perylene</i>
Matrix Spike Results								
2318-63	T1103	AC	Storm 1	01/17/05	9.26 U	1375 BE	738 BE	1509 BE
2318-63 Spk A	Spike A	AC		01/17/05	1338	8601 E	5247 E	6933 BE
2318-63 Spk B	Spike B	AC		01/17/05	1431	8349 E	5451 E	6357 BE
	Spike Concentration				1250	2500	2500	2500
	Percent Recovery MS				107%	289% &	180% &	217% &
	Percent Recovery MSD				115%	279% &	188% &	194% &
	RPD				7%	4%	4%	11%
Laboratory Duplicate Results								
2318-64 R-1	T1104	LMK122	Storm 1	01/17/05	16.8 J	372 BE	240 BE	2862 BE
2318-64 R-2	T1104	LMK122	Storm 1	01/17/05	14.4 J	419 BE	253 BE	2624 BE
	RPD				15%	12%	5%	9%

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					Surrogate Recoveries				
					d8 naphthalene	d10 acenaphthene	d10 phenanthrene	d12 chrysene	d12 perylene
					(%)	(%)	(%)	(%)	(%)
MSL Sample ID	Client ID	Site Description	Event	Collection Date					
LABORATORY REPORTING LIMIT (RL)									
Blanks									
Method Blank (2)	23182 Blank A	--		--	88%	97%	111%	105%	104%
Method Blank (3)	23182 Blank B	--		--	75%	83%	89%	85%	87%
Method Blank (4)	23182 Blank C	--		--	81%	86%	92%	86%	86%
	Mean Blank								
	10x Mean Blank								
Blank Spike Results									
Blank	23182 Blank A	--		--	88%	97%	111%	105%	104%
Blank Spike A	23182 Blank Spike A	--		--	95%	100%	112%	108%	103%
	Spike Concentration								
	Percent Recovery A								
Blank	23182 Blank B	--		--	75%	83%	89%	85%	87%
Blank Spike B	23182 Blank Spike B	--		--	66%	70%	79%	81%	82%
	Spike Concentration								
	Percent Recovery B								
Blank	23182 Blank C	--		--	81%	86%	92%	86%	86%
Blank Spike C	23182 Blank Spike C	--		--	69%	73%	81%	84%	86%
Blank Spike D	23182 Blank Spike D	--		--	66%	72%	84%	89%	87%
	Spike Concentration								
	Percent Recovery C								
	Percent Recovery D								

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Surrogate Recoveries

					d8 naphthalene	d10 acenaphthene	d10 phenanthrene	d12 chrysene	d12 perylene
					(%)	(%)	(%)	(%)	(%)

MSL Sample ID	Client ID	Site Description	Event	Collection Date					
---------------	-----------	------------------	-------	-----------------	--	--	--	--	--

Matrix Spike Results

2318-63	T1103	AC	Storm 1	01/17/05	75%	82%	89%	82%	82%
2318-63 Spk A	Spike A	AC		01/17/05	100%	104%	110%	110%	112%
2318-63 Spk B	Spike B	AC		01/17/05	92%	97%	106%	101%	102%

Spike Concentration
Percent Recovery MS
Percent Recovery MSD
RPD

Laboratory Duplicate Results

2318-64 R-1	T1104	LMK122	Storm 1	01/17/05	63%	75%	83%	79%	82%
2318-64 R-2	T1104	LMK122	Storm 1	01/17/05	66%	72%	80%	77%	77%

RPD

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PAH/Phthalate Results for Water Samples

Reported in ng/L

PAH Results

							naphthalene	2 methyl naphthalene	acenaphthalene	acenaphthene	fluorine
Surrogate:											
MSL Sample ID	Client ID	Site Description	Event	Collection Date	Extraction Date	Analysis Date	d8 naphthalene	d8 naphthalene	d10 acenaphthene	d10 acenaphthene	d10 acenaphthene
LABORATORY REPORTING LIMIT (RL)							20	20	20	20	20
<u>Blanks</u>											
Method Blank (1)	23183 Blank A	--	Storm 1	--	03/04/05	3/18/2005	8.35 U	10.0 U	12.8 U	12.1 U	10.6 U
Method Blank (2)	23183 Blank B	--	Storm 1	--	03/04/05	3/18/2005	8.35 U	10.0 U	12.8 U	12.1 U	10.6 U
<i>Mean Blank</i>											
<i>10x Mean Blank</i>											
Method Blank (3)	23184 blk 1	--	Storm 2	--	03/23/05	4/30/2005	8.35 U	10.0 U	12.8 U	12.1 U	10.6 U
Method Blank (4)	23184 blk 2	--	Storm 2	--	03/23/05	4/30/2005	8.35 U	10.0 U	12.8 U	12.1 U	10.6 U
<i>Mean Blank</i>											
<i>10x Mean Blank</i>											
<u>Blank Spike Results</u>											
Blank	23183 Blank B	--	Storm 1	--	03/04/05	3/18/2005	8.35 U	10.0 U	12.8 U	12.1 U	10.6 U
Blank Spike A	23183 Blank Spike A	--	Storm 1	--	03/04/05	3/18/2005	359	244	509	526	548
Blank Spike B	23183 Blank Spike B	--	Storm 1	--	03/04/05	3/18/2005	355	173	373	388	415
Spike Concentration							625	625	625	625	625
Percent Recovery A							57%	39% &	81%	84%	88%
Percent Recovery B							57%	28% &	60%	62%	66%
Blank	23184 Blank	--	Storm 2	--	03/23/05	4/30/2005	8.35 U	10.0 U	12.8 U	12.1 U	10.6 U
Blank Spike A	23184 Blank Spike A	--	Storm 2	--	03/23/05	4/30/2005	443	213	508	524	580
Blank Spike B	23184 Blank Spike B	--	Storm 2	--	03/23/05	4/30/2005	446	218	465	489	534
Spike Concentration							625	625	625	625	625
Percent Recovery A							71%	34% &	81%	84%	93%
Percent Recovery B							71%	35% &	74%	78%	85%
<u>Matrix Spike Results</u>											
2318-234	T1202	B-ST28	Storm 1	03/01/05	03/04/05	3/18/2005	25.7	68.3	14.1	10.5 U	30.0
2318-234 Spk A	Spike A	--	--	--	03/04/05	3/18/2005	378	239	380	400	415
2318-234 Spk B	Spike B	--	--	--	03/04/05	3/18/2005	443	280	457	468	523
Spike Concentration							544	544	544	544	544
Percent Recovery MS							65%	31% &	67%	74%	71%
Percent Recovery MSD							77%	39% &	81%	86%	91%
RPD							17%	21%	19%	16%	24%

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PAH Results

							naphthalene	2 methyl naphthalene	acenaphthalene	acenaphthene	fluorine
Surrogate:											
MSL Sample ID	Client ID	Site Description	Event	Collection Date	Extraction Date	Analysis Date	d8 naphthalene	d8 naphthalene	d10 acenaphthene	d10 acenaphthene	d10 acenaphthene
Matrix Spike Results, cont.											
2318-312	T1212	PSNS124	Storm 2	03/20/05	03/23/05	4/30/2005	32.4	11.1 U	14.2 U	13.4 U	11.8 U
2318-312 Spk A	Spike A	--	--	--	03/23/05	4/30/2005	583	300	587	605	608
2318-312 Spk B	Spike B	--	--	--	03/23/05	4/30/2005	549	263	553	578	624
Spike Concentration							694	694	694	694	694
Percent Recovery MS							79%	43%	85%	87%	88%
Percent Recovery MSD							74%	38% &	80%	83%	90%
RPD							6%	13%	6%	5%	3%
Laboratory Duplicate Results											
2318-235 R-1	T1203	B-ST/CSO16	Storm 1	03/01/05	03/04/05	3/18/2005	18.0	7.12	8.08	8.85	15.7
2318-235 R-2	T1203	B-ST/CSO16	Storm 1	03/01/05	03/04/05	3/18/2005	17.6	7.47	7.94 U	7.49 U	11.1
RPD							2%	5%	NA	NA	34% &
2318-310 R-1	T1210	B-ST/CSO16	Storm 2	03/20/05	03/23/05	4/30/2005	53.5	35.8	14.9	18.3	32.2
2318-310 R-2	T1210	B-ST/CSO16	Storm 2	03/20/05	03/23/05	4/30/2005	45.8	29.9	12.3	11.4	22.3
RPD							16%	18%	19%	47% &	36% &

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					phenanthrene	anthracene	fluoranthene	pyrene	benz[a]anthracene	chrysene
MSL Sample ID	Client ID	Site Description	Event	Collection Date	d10 phenanthrene	d10 phenanthrene	d12 chrysene	d12 chrysene	d12 chrysene	d12 chrysene
LABORATORY REPORTING LIMIT (RL)					20	20	20	20	20	20
Blanks										
Method Blank (1)	23183 Blank A	--	Storm 1	--	16.4 U	11.6 U	17.9 U	22.3	16.0 U	17.6 U
Method Blank (2)	23183 Blank B	--	Storm 1	--	16.4 U	11.6 U	17.9 U	18.7 U	16.0 U	17.6 U
	Mean Blank							11.2 J		
	10x Mean Blank									
Method Blank (3)	23184 blk 1	--	Storm 2	--	16.4 U	11.6 U	17.9 U	18.7 U	16.0 U	17.6 U
Method Blank (4)	23184 blk 2	--	Storm 2	--	16.4 U	11.6 U	17.9 U	18.7 U	16.0 U	17.6 U
	Mean Blank									
	10x Mean Blank									
Blank Spike Results										
Blank	23183 Blank B	--	Storm 1	--	16.4 U	11.6 U	17.9 U	18.7 U	16.0 U	17.6 U
Blank Spike A	23183 Blank Spike A	--	Storm 1	--	612	600	715	681	565	495
Blank Spike B	23183 Blank Spike B	--	Storm 1	--	437	452	485	479	519	467
	Spike Concentration				625	625	625	625	625	625
	Percent Recovery A				98%	96%	114%	109%	90%	79%
	Percent Recovery B				70%	72%	78%	77%	83%	75%
Blank	23184 Blank	--	Storm 2	--	16.4 U	11.6 U	17.9 U	18.7 U	16.0 U	17.6 U
Blank Spike A	23184 Blank Spike A	--	Storm 2	--	630	617	667	684	757	653
Blank Spike B	23184 Blank Spike B	--	Storm 2	--	569	564	612	601	483	427
	Spike Concentration				625	625	625	625	625	625
	Percent Recovery A				101%	99%	107%	109%	121% &	105%
	Percent Recovery B				91%	90%	98%	96%	77%	68%
Matrix Spike Results										
2318-234	T1202	B-ST28	Storm 1	03/01/05	144	15.9	240	284	50.7	138
2318-234 Spk A	Spike A	--	--	--	525	413	702	720	410	419
2318-234 Spk B	Spike B	--	--	--	647	547	875	879	608	610
	Spike Concentration				544	544	544	544	544	544
	Percent Recovery MS				70%	73%	85%	80%	66%	52%
	Percent Recovery MSD				92%	98%	117%	109%	102%	87%
	RPD				28%	29%	32% &	31% &	43% &	51% &

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					phenanthrene	anthracene	fluoranthene	pyrene	benz[a]anthracene	chrysene
MSL Sample ID	Client ID	Site Description	Event	Collection Date	d10 phenanthrene	d10 phenanthrene	d12 chrysene	d12 chrysene	d12 chrysene	d12 chrysene
Matrix Spike Results, cont.										
2318-312	T1212	PSNS124	Storm 2	03/20/05	72.0	12.8 U	79.0	99.3	18.4	32.7
2318-312 Spk A	Spike A	--	--	--	640	617	718	695	733	636
2318-312 Spk B	Spike B	--	--	--	678	679	766	718	755	656
Spike Concentration					694	694	694	694	694	694
Percent Recovery MS					82%	87%	92%	86%	103%	87%
Percent Recovery MSD					87%	96%	99%	89%	106%	90%
RPD					7%	10%	7%	4%	3%	3%
Laboratory Duplicate Results										
2318-235 R-1	T1203	B-ST/CSO16	Storm 1	03/01/05	144	13.5	381	312	78.1	169
2318-235 R-2	T1203	B-ST/CSO16	Storm 1	03/01/05	99.9	9.37	274	224	56.3	127
RPD					36% &	36% &	33% &	33% &	33% &	29%
2318-310 R-1	T1210	B-ST/CSO16	Storm 2	03/20/05	384	44.4	735	576	200	303
2318-310 R-2	T1210	B-ST/CSO16	Storm 2	03/20/05	238	34.0	407	349	101	194
RPD					47% &	27%	58% &	49% &	66% &	44% &

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					benzo[b]fluoranthene	benzo[k]fluoranthene	benzo[a]pyrene	indeno[1,2,3-c,d]pyrene
MSL Sample ID	Client ID	Site Description	Event	Collection Date	d12 perylene	d12 perylene	d12 perylene	d12 perylene
LABORATORY REPORTING LIMIT (RL)					20	20	20	20
<u>Blanks</u>								
Method Blank (1)	23183 Blank A	--	Storm 1	--	15.3 U	14.5 U	143	14.3 U
Method Blank (2)	23183 Blank B	--	Storm 1	--	15.3 U	14.5 U	17.2 U	14.3 U
	Mean Blank						71.4	
	10x Mean Blank						714	
Method Blank (3)	23184 blk 1	--	Storm 2	--	15.3 U	14.5 U	17.2 U	14.3 U
Method Blank (4)	23184 blk 2	--	Storm 2	--	15.3 U	14.5 U	17.2 U	14.3 U
	Mean Blank							
	10x Mean Blank							
<u>Blank Spike Results</u>								
Blank	23183 Blank B	--	Storm 1	--	15.3 U	14.5 U	17.2 U	14.3 U
Blank Spike A	23183 Blank Spike A	--	Storm 1	--	467	446	598	677
Blank Spike B	23183 Blank Spike B	--	Storm 1	--	425	422	399	459
	Spike Concentration				625	625	625	625
	Percent Recovery A				75%	71%	96%	108%
	Percent Recovery B				68%	68%	64%	73%
Blank	23184 Blank	--	Storm 2	--	15.3 U	14.5 U	17.2 U	14.3 U
Blank Spike A	23184 Blank Spike A	--	Storm 2	--	713	699	655	735
Blank Spike B	23184 Blank Spike B	--	Storm 2	--	609	581	575	614
	Spike Concentration				625	625	625	625
	Percent Recovery A				114%	112%	105%	118%
	Percent Recovery B				97%	93%	92%	98%
<u>Matrix Spike Results</u>								
2318-234	T1202	B-ST28	Storm 1	03/01/05	119	36.7	44.6 B	67.5
2318-234 Spk A	Spike A	--	--	--	417	314	413	363
2318-234 Spk B	Spike B	--	--	--	662	549	589	649
	Spike Concentration				544	544	544	544
	Percent Recovery MS				55%	51%	68%	54%
	Percent Recovery MSD				100%	94%	100%	107%
	RPD				58% &	59% &	39% &	65% &

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SINCLAIR AND DYES INLET 2005 STORMWATER
QC Summary - Sinclair Inlet Stormwater

PAH/Phthalate Results for Water Samples

Reported in ng/L

					benzo[b]fluoranthene	benzo[k]fluoranthene	benzo[a]pyrene	indeno[1,2,3-c,d]pyrene
MSL Sample ID	Client ID	Site Description	Event	Collection Date	d12 perylene	d12 perylene	d12 perylene	d12 perylene
<u>Matrix Spike Results, cont.</u>								
2318-312	T1212	PSNS124	Storm 2	03/20/05	24.7	16.1	90.0	15.9 U
2318-312 Spk A	Spike A	--	--	--	690	647	634	667
2318-312 Spk B	Spike B	--	--	--	718	672	663	704
	Spike Concentration				694	694	694	694
	Percent Recovery MS				96%	91%	78%	96%
	Percent Recovery MSD				100%	94%	83%	101%
	RPD				4%	4%	5%	5%
<u>Laboratory Duplicate Results</u>								
2318-235 R-1	T1203	B-ST/CSO16	Storm 1	03/01/05	169	55.4	85.8 B	101
2318-235 R-2	T1203	B-ST/CSO16	Storm 1	03/01/05	118	38.6	62.2 B	73.8
	RPD				35% &	36% &	32% &	31% &
2318-310 R-1	T1210	B-ST/CSO16	Storm 2	03/20/05	370	125	216 B	221
2318-310 R-2	T1210	B-ST/CSO16	Storm 2	03/20/05	230	74.8	121 B	133
	RPD				46% &	50% &	57% &	49% &

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PAH/Phthalate Results for Water Samples
Reported in ng/L

					dibenz[a,h]anthracene	benzo[g,h,i]perylene	di-N-butyl phthalate	butylbenzyl phthalate	bis (2-ethylhexyl) phthalate
MSL Sample ID	Client ID	Site Description	Event	Collection Date	d12 perylene	d12 perylene	d10 phenanthrene	d12 chrysene	d12 perylene
LABORATORY REPORTING LIMIT (RL)					20	20	40	40	40
Blanks									
Method Blank (1)	23183 Blank A	--	Storm 1	--	13.4 U	14.4 U	999 E	510 E	858 E
Method Blank (2)	23183 Blank B	--	Storm 1	--	13.4 U	14.4 U	421 E	183 E	246 E
	Mean Blank						710	346	552
	10x Mean Blank						7101	3464	5516
Method Blank (3)	23184 blk 1	--	Storm 2	--	13.4 U	14.4 U	1364 E	161 E	4304 E
Method Blank (4)	23184 blk 2	--	Storm 2	--	13.4 U	14.4 U	2440 E	141 E	345 E
	Mean Blank						1902	151	2325
	10x Mean Blank						19018	1514	23248
Blank Spike Results									
Blank	23183 Blank B	--	Storm 1	--	13.4 U	14.4 U	421 E	183 E	246 E
Blank Spike A	23183 Blank Spike A	--	Storm 1	--	1170	654	2634 BE	2307 BE	7865 E
Blank Spike B	23183 Blank Spike B	--	Storm 1	--	402	434	1456 BE	2028 BE	5008 BE
	Spike Concentration				625	625	1250	1250	1250
	Percent Recovery A				187%	105%	177% &	170% &	610% &
	Percent Recovery B				64%	69%	83%	148% &	381% &
Blank	23184 Blank	--	Storm 2	--	13.4 U	14.4 U	1364 E	161 E	4304 E
Blank Spike A	23184 Blank Spike A	--	Storm 2	--	677	751	2003 BE	1954 E	3950 BE
Blank Spike B	23184 Blank Spike B	--	Storm 2	--	589	611	4235 BE	1715 E	2239 BE
	Spike Concentration				625	625	1250	1250	1250
	Percent Recovery A				108%	120%	51%	143% &	28% &
	Percent Recovery B				94%	98%	230% &	124% &	165% &
Matrix Spike Results									
2318-234	T1202	B-ST28	Storm 1	03/01/05	429	136	1037 BE	2103 BE	5785 E
2318-234 Spk A	Spike A	--	--	--	308	440	375 BE	578 BE	4520 BE
2318-234 Spk B	Spike B	--	--	--	713	676	2371 BE	3464 E	5285 BE
	Spike Concentration				544	544	1088	1088	1088
	Percent Recovery MS				22% &	56%	61%	140% &	116%
	Percent Recovery MSD				52%	99%	123% &	125% &	46%
	RPD				80% &	56% &	67% &	11%	87% &

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PAH/Phthalate Results for Water Samples
Reported in ng/L

					dibenz[a,h]anthracene	benzo[g,h,i]perylene	di-N-butyl phthalate	butylbenzyl phthalate	bis (2-ethylhexyl) phthalate
MSL Sample ID	Client ID	Site Description	Event	Collection Date	d12 perylene	d12 perylene	d10 phenanthrene	d12 chrysene	d12 perylene
<u>Matrix Spike Results, cont.</u>									
2318-312	T1212	PSNS124	Storm 2	03/20/05	14.9 U	15.9 U	2241 BE	1932 E	5787 BE
2318-312 Spk A	Spike A	--	--	--	593	656	4344 BE	3582 E	7383 BE
2318-312 Spk B	Spike B	--	--	--	630	697	5125 BE	3734 E	8014 BE
Spike Concentration					694	694	1389	1389	1389
Percent Recovery MS					85%	95%	151% &	119%	115%
Percent Recovery MSD					91%	100%	208% &	130% &	160% &
RPD					6%	6%	31% &	9%	33% &
<u>Laboratory Duplicate Results</u>									
2318-235 R-1	T1203	B-ST/CSO16	Storm 1	03/01/05	24.5	129	432 BE	1022 BE	5805 E
2318-235 R-2	T1203	B-ST/CSO16	Storm 1	03/01/05	18.8	92.7	559 BE	723 BE	6176 E
RPD					26%	33% &	26%	34% &	6%
2318-310 R-1	T1210	B-ST/CSO16	Storm 2	03/20/05	42.3	231	3307 BE	1167 BE	12041 BE
2318-310 R-2	T1210	B-ST/CSO16	Storm 2	03/20/05	32.3	146	2773 BE	771 BE	7664 BE
RPD					27%	45% &	18%	41% &	44% &

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SINCLAIR AND DYES INLET 2005 STORMWATER
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PAH/Phthalate Results for Water Samples

Reported in ng/L

Surrogate Recoveries

					d8 naphthalene	d10 acenaphthene	d10 phenanthrene	d12 chrysene	d12 perylene
					(%)	(%)	(%)	(%)	(%)
MSL Sample ID	Client ID	Site Description	Event	Collection Date					

LABORATORY REPORTING LIMIT (RL)
Blanks

Method Blank (1)	23183 Blank A	--	Storm 1	--	60%	63%	98%	51%	66%
Method Blank (2)	23183 Blank B	--	Storm 1	--	48%	67%	76%	76%	80%
	Mean Blank								
	10x Mean Blank								
Method Blank (3)	23184 blk 1	--	Storm 2	--	75%	76%	95%	87%	90%
Method Blank (4)	23184 blk 2	--	Storm 2	--	74%	75%	95%	103%	101%
	Mean Blank								
	10x Mean Blank								

Blank Spike Results

Blank	23183 Blank B	--	Storm 1	--	48%	67%	76%	76%	80%
Blank Spike A	23183 Blank Spike A	--	Storm 1	--	57%	80%	90%	67%	91%
Blank Spike B	23183 Blank Spike B	--	Storm 1	--	64%	67%	77%	77%	71%
	Spike Concentration								
	Percent Recovery A								
	Percent Recovery B								
Blank	23184 Blank	--	Storm 2	--	75%	76%	95%	87%	90%
Blank Spike A	23184 Blank Spike A	--	Storm 2	--	85%	86%	110%	117%	111%
Blank Spike B	23184 Blank Spike B	--	Storm 2	--	79%	85%	99%	74%	101%
	Spike Concentration								
	Percent Recovery A								
	Percent Recovery B								

Matrix Spike Results

2318-234	T1202	B-ST28	Storm 1	03/01/05	50%	76%	82%	68%	81%
2318-234 Spk A	Spike A	--	--	--	59%	63%	79%	48%	55%
2318-234 Spk B	Spike B	--	--	--	67%	72%	81%	72%	81%
	Spike Concentration								
	Percent Recovery MS								
	Percent Recovery MSD								
	RPD								

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SINCLAIR AND DYES INLET 2005 STORMWATER
QC Summary - Sinclair Inlet Stormwater

PAH/Phthalate Results for Water Samples

Reported in ng/L

Surrogate Recoveries

					d8 naphthalene	d10 acenaphthene	d10 phenanthrene	d12 chrysene	d12 perylene
					(%)	(%)	(%)	(%)	(%)

MSL Sample ID	Client ID	Site Description	Event	Collection Date					
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Matrix Spike Results, cont.

2318-312	T1212	PSNS124	Storm 2	03/20/05	73%	75%	99%	95%	88%
2318-312 Spk A	Spike A	--	--	--	77%	81%	94%	95%	99%
2318-312 Spk B	Spike B	--	--	--	87%	88%	106%	103%	107%

Spike Concentration
 Percent Recovery MS
 Percent Recovery MSD
 RPD

Laboratory Duplicate Results

2318-235 R-1	T1203	B-ST/CSO16	Storm 1	03/01/05	49%	72%	77%	65%	73%
2318-235 R-2	T1203	B-ST/CSO16	Storm 1	03/01/05	53%	60%	62%	52%	59%

RPD

2318-310 R-1	T1210	B-ST/CSO16	Storm 2	03/20/05	78%	88%	103%	96%	105%
2318-310 R-2	T1210	B-ST/CSO16	Storm 2	03/20/05	70%	77%	89%	81%	92%

RPD

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SINCLAIR AND DYES INLET 2005 STORMWATER
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PAH/Phthalate Results for Water Samples
Reported in ng/L

							PAH Results				
							naphthalene	2 methyl naphthalene	acenaphthalene	acenaphthene	fluorine
							<i>Surrogate:</i>				
MSL Sample ID	Client ID	Site Description	Event	Collection Date	Extraction Date	Analysis Date	<i>d8 naphthalene</i>	<i>d8 naphthalene</i>	<i>d10 acenaphthene</i>	<i>d10 acenaphthene</i>	<i>d10 acenaphthene</i>
LABORATORY REPORTING LIMIT (RL)							20	20	20	20	20
<u>Blanks</u>											
Method Blank (1)	23185 blk		Storm 1	--	3/29/2005	4/30/2005	8.35 U	10.0 U	12.8 U	12.1 U	10.6 U
	10x blank										
Method Blank (2)	23186 blk		Storm 2/wet season	--	4/5/2005	4/30/2005	8.35 U	10.0 U	12.8 U	12.1 U	10.6 U
	10x blank										
Method Blank (3)	23187 blk		Make-up Storm	--	4/13/2005	4/30/2005	11.2 J	10.0 U	12.8 U	12.1 U	10.6 U
	10x blank										
<u>Blank Spike Results</u>											
Blank	23185 blk	--	Storm 1	--	3/29/2005	4/30/2005	8.35 U	10.0 U	12.8 U	12.1 U	10.6 U
Blank Spike A	23185 blk spk A	--	Storm 1	--	3/29/2005	4/30/2005	456	229	483	507	559
Blank Spike B	23185 blk spk B	--	Storm 1	--	3/29/2005	4/30/2005	510	258	556	590	616
	Spike Concentration						625	625	625	625	625
	Percent Recovery A						73%	37% &	77%	81%	89%
	Percent Recovery B						82%	41%	89%	94%	98%
Blank	23186 blk	--	Storm 2/wet season	--	4/5/2005	4/30/2005	8.35 U	10.0 U	12.8 U	12.1 U	10.6 U
Blank Spike A	23186 blk spk A	--	Storm 2/wet season	--	4/5/2005	4/30/2005	553	276	571	615	641
Blank Spike B	23186 blk spk B	--	Storm 2/wet season	--	4/5/2005	4/30/2005	530	262	523	562	569
	Spike Concentration						625	625	625	625	625
	Percent Recovery A						88%	44%	91%	98%	103%
	Percent Recovery B						85%	42%	84%	90%	91%
Blank	23187 blk	--	Make-up Storm	--	4/13/2005	4/30/2005	11.2 J	10.0 U	12.8 U	12.1 U	10.6 U
Blank Spike A	23187 blk spk	--	Make-up Storm	--	4/13/2005	4/30/2005	491	250	545	555	571
	Spike Concentration						625	625	625	625	625
	Percent Recovery A						77%	40%	87%	89%	91%

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SINCLAIR AND DYES INLET 2005 STORMWATER
QC Summary - Dyes Inlet and Springbrook Creek Stormwater

PAH/Phthalate Results for Water Samples

Reported in ng/L

PAH Results

							PAH Results				
							naphthalene	2 methyl naphthalene	acenaphthalene	acenaphthene	fluorine
							Surrogate:				
MSL Sample ID	Client ID	Site Description	Event	Collection Date	Extraction Date	Analysis Date	d8 naphthalene	d8 naphthalene	d10 acenaphthene	d10 acenaphthene	d10 acenaphthene
Matrix Spike Results											
2318-386	T1304	CH	Storm 1	03/27/05	3/29/2005	5/1/2005	12.6 J	9.01 U	11.5 U	10.9 U	9.59 U
2318-386 Spk A	Spike A	--	Storm 1	--	3/29/2005	5/1/2005	476	245	536	556	591
2318-386 Spk B	Spike B	--	Storm 1	--	3/29/2005	5/1/2005	383	188	400	427	494
Spike Concentration							625	625	625	625	625
Percent Recovery MS							74%	39% &	86%	89%	95%
Percent Recovery MSD							59%	30% &	64%	68%	79%
RPD							22%	26%	29%	26%	18%
2318-445	T1313	SW6	Storm 2	04/01/05	4/5/2005	5/1/2005	12.5 J	8.10 U	10.4 U	9.77 U	8.62 U
2318-445 Spk A	Spike A	--	Storm 2	--	4/5/2005	5/1/2005	458	234	481	511	554
2318-445 Spk B	Spike B	--	Storm 2	--	4/5/2005	5/1/2005	596	307	623	647	669
Spike Concentration							625	625	625	625	625
Percent Recovery MS							71%	37% &	77%	82%	89%
Percent Recovery MSD							93%	49%	100%	104%	107%
RPD							27%	27%	26%	24%	19%
Laboratory Duplicate Results											
2318-382 R-1	T1302	CC	Storm 1	03/27/05	3/29/2005	5/1/2005	14.7 J	7.14 U	9.13 U	8.61 U	7.60 U
2318-382 R-2	T1302	CC	Storm 1	03/27/05	3/29/2005	5/1/2005	16.0 J	7.14 U	9.13 U	8.61 U	7.60 U
RPD							9%	NA	NA	NA	NA
2318-446 R-1	T1314	B-ST12	Storm 2	04/01/05	4/5/2005	5/1/2005	6.30 U	7.55 U	9.65 U	9.10 U	8.04 U
2318-446 R-2	T1314	B-ST12	Storm 2	04/01/05	4/5/2005	5/1/2005	6.30 U	7.55 U	9.65 U	9.10 U	8.04 U
RPD							NA	NA	NA	NA	NA

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SINCLAIR AND DYES INLET 2005 STORMWATER
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PAH/Phthalate Results for Water Samples
Reported in ng/L

					phenanthrene	anthracene	fluoranthene	pyrene	benz[a]anthracene	chrysene
MSL Sample ID	Client ID	Site Description	Event	Collection Date	d10 phenanthrene	d10 phenanthrene	d12 chrysene	d12 chrysene	d12 chrysene	d12 chrysene
LABORATORY REPORTING LIMIT (RL)					20	20	20	20	20	20
Blanks										
Method Blank (1)	23185 blk		Storm 1	--	16.4 U	11.6 U	17.9 U	18.7 U	16.0 U	17.6 U
	10x blank									
Method Blank (2)	23186 blk		Storm 2/wet season	--	16.4 U	11.6 U	17.9 U	18.7 U	16.0 U	17.6 U
	10x blank									
Method Blank (3)	23187 blk		Make-up Storm	--	16.4 U	11.6 U	17.9 U	18.7 U	16.0 U	17.6 U
	10x blank									
Blank Spike Results										
Blank	23185 blk	--	Storm 1	--	16.4 U	11.6 U	17.9 U	18.7 U	16.0 U	17.6 U
Blank Spike A	23185 blk spk A	--	Storm 1	--	603	614	685	671	730	640
Blank Spike B	23185 blk spk B	--	Storm 1	--	700 *	636 *	759	3102	773	666
	Spike Concentration				625	625	625	625	625	625
	Percent Recovery A				97%	98%	110%	107%	117%	102%
	Percent Recovery B				112%	102%	121% &	496% &	124% &	107%
Blank	23186 blk	--	Storm 2/wet season	--	16.4 U	11.6 U	17.9 U	18.7 U	16.0 U	17.6 U
Blank Spike A	23186 blk spk A	--	Storm 2/wet season	--	675 *	667 *	739	740	590	523
Blank Spike B	23186 blk spk B	--	Storm 2/wet season	--	637	590	670	666	693	638
	Spike Concentration				625	625	625	625	625	625
	Percent Recovery A				108%	107%	118%	118%	94%	84%
	Percent Recovery B				102%	94%	107%	107%	111%	102%
Blank	23187 blk	--	Make-up Storm	--	16.4 U	11.6 U	17.9 U	18.7 U	16.0 U	17.6 U
Blank Spike A	23187 blk spk	--	Make-up Storm	--	597	601	665	641	654	608
	Spike Concentration				625	625	625	625	625	625
	Percent Recovery A				96%	96%	106%	103%	105%	97%

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PAH/Phthalate Results for Water Samples
Reported in ng/L

					phenanthrene	anthracene	fluoranthene	pyrene	benz[a]anthracene	chrysene
MSL Sample ID	Client ID	Site Description	Event	Collection Date	d10 phenanthrene	d10 phenanthrene	d12 chrysene	d12 chrysene	d12 chrysene	d12 chrysene
Matrix Spike Results										
2318-386	T1304	CH	Storm 1	03/27/05	14.8 U	10.4 U	16.1 U	29.3	14.4 U	15.9 U
2318-386 Spk A	Spike A	--	Storm 1	--	643	660	767	730	780	680
2318-386 Spk B	Spike B	--	Storm 1	--	555	543	650	632	674	591
	Spike Concentration				625	625	625	625	625	625
	Percent Recovery MS				103%	106%	123% &	112%	125% &	109%
	Percent Recovery MSD				89%	87%	104%	96%	108%	95%
	RPD				15%	19%	17%	15%	15%	14%
2318-445	T1313	SW6	Storm 2	04/01/05	13.3 U	9.37 U	14.5 U	15.1 U	13.0 U	14.3 U
2318-445 Spk A	Spike A	--	Storm 2	--	631	629	755	720	742	663
2318-445 Spk B	Spike B	--	Storm 2	--	717	729	836	796	830	730
	Spike Concentration				625	625	625	625	625	625
	Percent Recovery MS				101%	101%	121% &	115%	119%	106%
	Percent Recovery MSD				115%	117%	134% &	127% &	133% &	117%
	RPD				13%	15%	10%	10%	11%	10%
Laboratory Duplicate Results										
2318-382 R-1	T1302	CC	Storm 1	03/27/05	11.7 U	8.26 U	13.2 J	14.6 J	11.4 U	12.6 U
2318-382 R-2	T1302	CC	Storm 1	03/27/05	11.7 U	8.26 U	12.8 U	13.3 U	11.4 U	12.6 U
	RPD				NA	NA	NA	NA	NA	NA
2318-446 R-1	T1314	B-ST12	Storm 2	04/01/05	59.7	8.73 U	206	148	47.0	97.2
2318-446 R-2	T1314	B-ST12	Storm 2	04/01/05	66.0	8.73 U	212	156	54.2	100
	RPD				10%	NA	3%	5%	14%	3%

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PAH/Phthalate Results for Water Samples
Reported in ng/L

					benzo[b]fluoranthene	benzo[k]fluoranthene	benzo[a]pyrene	indeno[1,2,3-c,d]pyrene
MSL Sample ID	Client ID	Site Description	Event	Collection Date	d12 perylene	d12 perylene	d12 perylene	d12 perylene
LABORATORY REPORTING LIMIT (RL)					20	20	20	20
Blanks								
Method Blank (1)	23185 blk		Storm 1	--	15.3 U	14.5 U	17.2 U	14.3 U
	10x blank							
Method Blank (2)	23186 blk		Storm 2/wet season	--	15.3 U	14.5 U	17.2 U	14.3 U
	10x blank							
Method Blank (3)	23187 blk		Make-up Storm	--	15.3 U	14.5 U	17.2 U	14.3 U
	10x blank							
Blank Spike Results								
Blank	23185 blk	--	Storm 1	--	15.3 U	14.5 U	17.2 U	14.3 U
Blank Spike A	23185 blk spk A	--	Storm 1	--	702	675	635	688
Blank Spike B	23185 blk spk B	--	Storm 1	--	559	515	2118	521
	Spike Concentration				625	625	625	625
	Percent Recovery A				112%	108%	102%	110%
	Percent Recovery B				89%	82%	339% &	83%
Blank	23186 blk	--	Storm 2/wet season	--	15.3 U	14.5 U	17.2 U	14.3 U
Blank Spike A	23186 blk spk A	--	Storm 2/wet season	--	792 *	761 *	704 *	794 *
Blank Spike B	23186 blk spk B	--	Storm 2/wet season	--	678	660	610	689
	Spike Concentration				625	625	625	625
	Percent Recovery A				127% &	122% &	113%	127% &
	Percent Recovery B				109%	106%	98%	110%
Blank	23187 blk	--	Make-up Storm	--	15.3 U	14.5 U	17.2 U	14.3 U
Blank Spike A	23187 blk spk	--	Make-up Storm	--	633	627	603	649
	Spike Concentration				625	625	625	625
	Percent Recovery A				101%	100%	97%	104%

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SINCLAIR AND DYES INLET 2005 STORMWATER
QC Summary - Dyes Inlet and Springbrook Creek Stormwater
PAH/Phthalate Results for Water Samples
Reported in ng/L

					benzo[b]fluoranthene	benzo[k]fluoranthene	benzo[a]pyrene	indeno[1,2,3-c,d]pyrene
MSL Sample ID	Client ID	Site Description	Event	Collection Date	d12 perylene	d12 perylene	d12 perylene	d12 perylene
Matrix Spike Results								
2318-386	T1304	CH	Storm 1	03/27/05	13.8 U	13.1 U	26.1	12.9 U
2318-386 Spk A	Spike A	--	Storm 1	--	765	716	692	747
2318-386 Spk B	Spike B	--	Storm 1	--	666	628	607	663
Spike Concentration					625	625	625	625
Percent Recovery MS					122% &	115%	106%	119%
Percent Recovery MSD					107%	100%	93%	106%
RPD					14%	13%	14%	12%
2318-445	T1313	SW6	Storm 2	04/01/05	12.4 U	11.8 U	13.9 U	11.6 U
2318-445 Spk A	Spike A	--	Storm 2	--	761	699	684	726
2318-445 Spk B	Spike B	--	Storm 2	--	850	783	769	800
Spike Concentration					625	625	625	625
Percent Recovery MS					122% &	112%	109%	116%
Percent Recovery MSD					136% &	125% &	123% &	128% &
RPD					11%	11%	12%	10%
Laboratory Duplicate Results								
2318-382 R-1	T1302	CC	Storm 1	03/27/05	10.9 U	10.4 U	12.3 U	10.2 U
2318-382 R-2	T1302	CC	Storm 1	03/27/05	10.9 U	10.4 U	12.3 U	10.2 U
RPD					NA	NA	NA	NA
2318-446 R-1	T1314	B-ST12	Storm 2	04/01/05	127	43.2	59.9	67.2
2318-446 R-2	T1314	B-ST12	Storm 2	04/01/05	129	43.7	64.1	68.8
RPD					1%	1%	7%	2%

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PAH/Phthalate Results for Water Samples
Reported in ng/L

Phthalate Results

					dibenz[a,h]anthracene	benzo[g,h,i]perylene	di-N-butyl phthalate	butylbenzyl phthalate	bis(2-ethylhexyl) phthalate
MSL Sample ID	Client ID	Site Description	Event	Collection Date	d12 perylene	d12 perylene	d10 phenanthrene	d12 chrysene	d12 perylene
LABORATORY REPORTING LIMIT (RL)					20	20	40	40	40
Blanks									
Method Blank (1)	23185 blk		Storm 1	--	13.4 U	14.4 U	407	205	1567
	10x blank						4069	2050	15671
Method Blank (2)	23186 blk		Storm 2/wet season	--	13.4 U	14.4 U	649	154	389
	10x blank						6487	1539	3886
Method Blank (3)	23187 blk		Make-up Storm	--	13.4 U	14.4 U	129	97.5	91.7
	10x blank						1295	975	917
Blank Spike Results									
Blank	23185 blk	--	Storm 1	--	13.4 U	14.4 U	407	205	1567
Blank Spike A	23185 blk spk A	--	Storm 1	--	614	685	2773 EB	2201 EB	6162 EB
Blank Spike B	23185 blk spk B	--	Storm 1	--	467	516	2036 EB*	2129 EB	4024 EB
	Spike Concentration				625	625	1250	1250	1250
	Percent Recovery A				98%	110%	189% &	160%	368%
	Percent Recovery B				75%	83%	130% &	154%	197%
Blank	23186 blk	--	Storm 2/wet season	--	13.4 U	14.4 U	649	154	389
Blank Spike A	23186 blk spk A	--	Storm 2/wet season	--	696 *	790 *	1991 EB*	1474 EB	2356 EB*
Blank Spike B	23186 blk spk B	--	Storm 2/wet season	--	606	675	1516 EB	1758 EB	2772 EB
	Spike Concentration				625	625	1250	1250	1250
	Percent Recovery A				111%	126% &	107%	106%	157% &
	Percent Recovery B				97%	108%	69%	128% &	191% &
Blank	23187 blk	--	Make-up Storm	--	13.4 U	14.4 U	129	97.5	91.7
Blank Spike A	23187 blk spk	--	Make-up Storm	--	578	647	1438 E	1644 E	3502 E
	Spike Concentration				625	625	1250	1250	1250
	Percent Recovery A				92%	103%	105%	124% &	273% &

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QC Summary - Dyes Inlet and Springbrook Creek Stormwater
PAH/Phthalate Results for Water Samples
Reported in ng/L

Phthalate Results

					dibenz[a,h]anthracene	benzo[g,h,i]perylene	di-N-butyl phthalate	butylbenzyl phthalate	bis(2-ethylhexyl) phthalate
MSL Sample ID	Client ID	Site Description	Event	Collection Date	d12 perylene	d12 perylene	d10 phenanthrene	d12 chrysene	d12 perylene
Matrix Spike Results									
2318-386	T1304	CH	Storm 1	03/27/05	12.1 U	12.9 U	981 EB	162 EB	681 EB
2318-386 Spk A	Spike A	--	Storm 1	--	665	744	2627 E	2275 E	3812 EB
2318-386 Spk B	Spike B	--	Storm 1	--	589	659	2387 E	1981 E	3379 EB
	Spike Concentration				625	625	1250	1250	1250
	Percent Recovery MS				106%	119%	132% &	169% &	251% &
	Percent Recovery MSD				94%	105%	112%	146% &	216% &
	RPD				12%	12%	16%	15%	15%
2318-445	T1313	SW6	Storm 2	04/01/05	10.9 U	11.6 U	992 EB	165 EB	544 EB
2318-445 Spk A	Spike A	--	Storm 2	--	632	736	2872 E	2386 E	6910 E
2318-445 Spk B	Spike B	--	Storm 2	--	692	807	3067 E	2685 E	7240 E
	Spike Concentration				625	625	1250	1250	1250
	Percent Recovery MS				101%	118%	150% &	178% &	509% &
	Percent Recovery MSD				111%	129% &	166% &	202% &	536% &
	RPD				9%	9%	10%	13%	5%
Laboratory Duplicate Results									
2318-382 R-1	T1302	CC	Storm 1	03/27/05	9.59 U	10.2 U	3602 E	278 EB	1408 EB
2318-382 R-2	T1302	CC	Storm 1	03/27/05	9.59 U	10.2 U	1376 EB	237 EB	2648 EB
	RPD				NA	NA	89% &	16%	61% &
2318-446 R-1	T1314	B-ST12	Storm 2	04/01/05	11.2 J	62.2	840 EB	189 EB	2542 E
2318-446 R-2	T1314	B-ST12	Storm 2	04/01/05	12.2 J	63.6	802 EB	221 EB	9100 E
	RPD				9%	2%	5%	16%	113% &

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SINCLAIR AND DYES INLET 2005 STORMWATER
QC Summary - Dyes Inlet and Springbrook Creek Stormwater
PAH/Phthalate Results for Water Samples

					<u>Surrogate Recoveries</u>				
					d8 naphthalene	d10 acenaphthene	d10 phenanthrene	d12 chrysene	d12 perylene
					(%)	(%)	(%)	(%)	(%)
MSL Sample ID	Client ID	Site Description	Event	Collection Date					
LABORATORY REPORTING LIMIT (RL)									
<u>Blanks</u>									
Method Blank (1)	23185 blk		Storm 1	--	77%	86%	106%	101%	106%
	10x blank								
Method Blank (2)	23186 blk		Storm 2/wet season	--	78%	84%	100%	97%	100%
	10x blank								
Method Blank (3)	23187 blk		Make-up Storm	--	83%	93%	102%	93%	101%
	10x blank								
<u>Blank Spike Results</u>									
Blank	23185 blk	--	Storm 1	--	77%	86%	106%	101%	106%
Blank Spike A	23185 blk spk A	--	Storm 1	--	80%	85%	100%	99%	100%
Blank Spike B	23185 blk spk B	--	Storm 1	--	85%	92%	122% #	109%	75%
	Spike Concentration								
	Percent Recovery A								
	Percent Recovery B								
Blank	23186 blk	--	Storm 2/wet season	--	78%	84%	100%	97%	100%
Blank Spike A	23186 blk spk A	--	Storm 2/wet season	--	109%	114%	126% #	94%	129% #
Blank Spike B	23186 blk spk B	--	Storm 2/wet season	--	92%	100%	107%	102%	102%
	Spike Concentration								
	Percent Recovery A								
	Percent Recovery B								
Blank	23187 blk	--	Make-up Storm	--	83%	93%	102%	93%	101%
Blank Spike A	23187 blk spk	--	Make-up Storm	--	88%	103%	113%	102%	109%
	Spike Concentration								
	Percent Recovery A								

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SINCLAIR AND DYES INLET 2005 STORMWATER
QC Summary - Dyes Inlet and Springbrook Creek Stormwater
 PAH/Phthalate Results for Water Samples

Surrogate Recoveries

					d8 naphthalene	d10 acenaphthene	d10 phenanthrene	d12 chrysene	d12 perylene
					(%)	(%)	(%)	(%)	(%)
MSL Sample ID	Client ID	Site Description	Event	Collection Date					
<u>Matrix Spike Results</u>									
2318-386	T1304	CH	Storm 1	03/27/05	72%	78%	90%	89%	91%
2318-386 Spk A	Spike A	--	Storm 1	--	70%	78%	97%	95%	94%
2318-386 Spk B	Spike B	--	Storm 1	--	76%	89%	103%	104%	108%
Spike Concentration									
Percent Recovery MS									
Percent Recovery MSD									
RPD									
2318-445	T1313	SW6	Storm 2	04/01/05	77%	85%	105%	103%	107%
2318-445 Spk A	Spike A	--	Storm 2	--	73%	80%	98%	101%	108%
2318-445 Spk B	Spike B	--	Storm 2	--	92%	99%	115%	113%	120%
Spike Concentration									
Percent Recovery MS									
Percent Recovery MSD									
RPD									
<u>Laboratory Duplicate Results</u>									
2318-382 R-1	T1302	CC	Storm 1	03/27/05	83%	91%	111%	106%	110%
2318-382 R-2	T1302	CC	Storm 1	03/27/05	85%	93%	106%	100%	105%
RPD									
2318-446 R-1	T1314	B-ST12	Storm 2	04/01/05	73%	86%	102%	99%	106%
2318-446 R-2	T1314	B-ST12	Storm 2	04/01/05	73%	86%	107%	103%	108%
RPD									

QC Sample Results: 2005 Storm Water Organic Contaminants - PCBs

- Gorst
- Sinclair Inlet
- Dyes Inlet, Wet Season
Baseflow

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SINCLAIR AND DYES INLET 2005 STORMWATER

QC Summary - Gorst Stormwater
PCB/Aroclor 1268 Results for Water Samples

							Aroclor 1268	PCB008	PCB018	PCB028	PCB052	PCB044	PCB066
MSL Sample ID	Client ID	Description	Event	Collection Date	Extraction Date	Analysis Date	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)
LABORATORY REPORTING LIMIT (RL)							40	2	2	2	2	2	2
Blanks													
Method Blank (1)	23182 Blank A	--		--	1/20/2005	2/17/2005	32.6 U	1.15 U	0.75 U	0.32 U	2.36	0.55 U	0.42 U
Method Blank (2)	23182 Blank B	--		--	1/21/2005	2/17/2005	32.6 U	1.15 U	0.75 U	0.32 U	1.32 U	0.55 U	0.42 U
Method Blank (3)	23182 Blank C	--		--	1/26/2005	2/17/2005	32.6 U	1.15 U	0.75 U	0.32 U	1.32 U	0.55 U	0.42 U
Blank Spike Results													
Blank	23182 Blank A	--		--	1/20/2005	2/17/2005	32.6 U	1.15 U	0.75 U	0.32 U	2.36	0.55 U	0.42 U
Blank Spike A	23182 Blank Spike A	--		--	1/20/2005	2/17/2005	32.6 U	45.0	41.9	41.7	42.5	39.6	66.3
	Spike Concentration						NS	50.0	50.0	50.0	50.0	50.0	50.0
	Percent Recovery A						NA	90%	84%	83%	80%	79%	133% &
Blank	23182 Blank B	--		--	1/21/2005	2/17/2005	32.6 U	1.15 U	0.75 U	0.32 U	1.32 U	0.55 U	0.42 U
Blank Spike B	23182 Blank Spike B	--		--	1/21/2005	2/18/2005	32.6 U	34.1	37.1	35.7	34.7	35.2	44.7
	Spike Concentration						NS	50.0	50.0	50.0	50.0	50.0	50.0
	Percent Recovery B						NA	68%	74%	71%	69%	70%	89%
Blank	23182 Blank C	--		--	1/26/2005	2/17/2005	32.6 U	1.15 U	0.75 U	0.32 U	1.32 U	0.55 U	0.42 U
Blank Spike C	23182 Blank Spike C	--		--	1/26/2005	2/18/2005	32.6 U	18.1	21.7	11.4	22.7	22.3	29.4
Blank Spike D	23182 Blank Spike D	--		--	1/26/2005	2/18/2005	32.6 U	21.2	19.7	19.2	23.0	19.9	25.5
	Spike Concentration						NS	25.0	25.0	25.0	25.0	25.0	25.0
	Percent Recovery C						NA	72%	87%	46%	91%	89%	118%
	Percent Recovery D						NA	85%	79%	77%	92%	80%	102%
MATRIX SPIKE RESULTS													
2318-63	T1103	AC	Storm 1	01/17/05	1/20/2005	2/18/2005	21.0 U	0.742 U	0.484 U	0.206 U	0.852 U	0.355 U	0.271 U
2318-63 Spk A	T1103 MS	AC		01/17/05	1/20/2005	2/18/2005	32.6 U	45.6	44.8	24.2	47.0	45.5	62.8
2318-63 Spk B	T1103 MSD	AC		01/17/05	1/20/2005	2/18/2005	32.6 U	42.6	49.8	52.2	57.9	48.1	59.0
	Spike Concentration MS						NS	50.0	50.0	50.0	50.0	50.0	50.0
	Spike Concentration MSD						NS	50.0	50.0	50.0	50.0	50.0	50.0
	Percent Recovery MS						NA	91%	90%	48%	94%	91%	126% &
	Percent Recovery MSD						NA	85%	100%	104%	116%	96%	118%
	RPD							7%	10%	73% &	21%	5%	6%
Laboratory Duplicate Results													
2318-64 R-1	T1104	LMK122	Storm 1	01/17/05	1/21/2005	2/18/2005	18.6 U	7.31	0.429 U	0.183 U	0.754 U	0.314 U	0.240 U
2318-64 R-2	T1104	LMK122	Storm 1	01/17/05	1/21/2005	2/18/2005	18.6 U	7.67	1.24	0.183 U	0.754 U	0.314 U	0.240 U
	RPD						NA	5%	NA	NA	NA	NA	NA

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QC Summary - Gorst Stormwater
PCB/Aroclor 1268 Results for Water Samples

					PCB101	PCB077	PCB118	PCB153	PCB105	PCB138	PCB126	PCB187	PCB128
MSL Sample ID	Client ID	Description	Event	Collection Date	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)
LABORATORY REPORTING LIMIT (RL)					2	2	2	2	2	2	2	2	2
Blanks													
Method Blank (1)	23182 Blank A	--		--	0.19 U	0.22 U	0.23 U	0.17 U	0.17 U	0.18 U	0.37 U	0.36 U	0.29 U
Method Blank (2)	23182 Blank B	--		--	0.19 U	0.22 U	0.23 U	0.17 U	0.17 U	0.18 U	0.37 U	0.36 U	0.29 U
Method Blank (3)	23182 Blank C	--		--	0.19 U	0.22 U	0.23 U	0.17 U	0.17 U	0.18 U	0.37 U	0.36 U	0.29 U
Blank Spike Results													
Blank	23182 Blank A	--		--	0.19 U	0.22 U	0.23 U	0.17 U	0.17 U	0.18 U	0.37 U	0.36 U	0.29 U
Blank Spike A	23182 Blank Spike A	--		--	65.2	63.7	60.1	66.2	64.6	55.3	69.3	67.2	66.6
	Spike Concentration				50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
	Percent Recovery A				130% &	127% &	120%	132% &	129% &	111%	139% &	134% &	133% &
Blank	23182 Blank B	--		--	0.19 U	0.22 U	0.23 U	0.17 U	0.17 U	0.18 U	0.37 U	0.36 U	0.29 U
Blank Spike B	23182 Blank Spike B	--		--	44.7	42.3	45.8	47.3	48.8	40.8	47.1	44.8	45.5
	Spike Concentration				50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
	Percent Recovery B				89%	85%	92%	95%	98%	82%	94%	90%	91%
Blank	23182 Blank C	--		--	0.19 U	0.22 U	0.23 U	0.17 U	0.17 U	0.18 U	0.37 U	0.36 U	0.29 U
Blank Spike C	23182 Blank Spike C	--		--	28.5	24.4	26.6	29.5	28.1	24.3	29.0	29.0	23.6
Blank Spike D	23182 Blank Spike D	--		--	25.2	22.8	24.3	25.9	25.4	22.6	25.5	25.1	26.8
	Spike Concentration				25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
	Percent Recovery C				114%	97%	107%	118%	112%	97%	116%	116%	95%
	Percent Recovery D				101%	91%	97%	104%	101%	90%	102%	100%	107%
MATRIX SPIKE RESULTS													
2318-63	T1103	AC	Storm 1	01/17/05	0.123 U	0.142 U	0.148	0.110 U	0.110 U	0.116 U	0.239 U	0.232 U	0.187 U
2318-63 Spk A	T1103 MS	AC		01/17/05	59.9	56.8	55.3	60.4	60.4	50.9	64.8	59.0	63.0
2318-63 Spk B	T1103 MSD	AC		01/17/05	59.6	50.4	52.7	61.4	60.1	54.0	60.2	59.9	50.3
	Spike Concentration MS				50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
	Spike Concentration MSD				50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
	Percent Recovery MS				120%	114%	111%	121% &	121% &	102%	130% &	118%	126% &
	Percent Recovery MSD				119%	101%	105%	123% &	120%	108%	120%	120%	101%
	RPD				0%	12%	5%	2%	1%	6%	7%	2%	22%
Laboratory Duplicate Results													
2318-64 R-1	T1104	LMK122	Storm 1	01/17/05	0.109 U	0.126 U	0.131 U	0.097 U	0.097 U	1.89	0.211 U	0.206 U	0.166 U
2318-64 R-2	T1104	LMK122	Storm 1	01/17/05	0.109 U	0.126 U	0.131 U	0.097 U	0.097 U	1.56	0.211 U	0.206 U	0.166 U
	RPD				NA	NA	NA	NA	NA	19%	NA	NA	NA

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QC Summary - Gorst Stormwater

PCB/Aroclor 1268 Results for Water Samples

MSL Sample ID	Client ID	Description	Event	Collection Date	Surrogate Recoveries					
					PCB200	PCB180	PCB170	PCB195	PCB103	PCB198
					(ng/L)	(ng/L)	(ng/L)	(ng/L)	% Recovery	% Recovery
LABORATORY REPORTING LIMIT (RL)					2	2	2	2		
Blanks										
Method Blank (1)	23182 Blank A	--		--	0.40 U	0.32 U	0.35 U	1.12 U	86%	138% #
Method Blank (2)	23182 Blank B	--		--	0.40 U	0.32 U	0.35 U	1.12 U	87%	129% #
Method Blank (3)	23182 Blank C	--		--	0.40 U	0.32 U	0.35 U	1.12 U	73%	86%
Blank Spike Results										
Blank	23182 Blank A	--		--	0.40 U	0.32 U	0.35 U	1.12 U	86%	138% #
Blank Spike A	23182 Blank Spike A	--		--	67.4	67.5	58.4	61.3	93%	156% #
	Spike Concentration				50.0	50.0	50.0	50.0		
	Percent Recovery A				135% &	135% &	117%	123% &		
Blank	23182 Blank B	--		--	0.40 U	0.32 U	0.35 U	1.12 U	87%	129% #
Blank Spike B	23182 Blank Spike B	--		--	43.8	40.9	39.6	43.4	79%	114%
	Spike Concentration				50.0	50.0	50.0	50.0		
	Percent Recovery B				88%	82%	79%	87%		
Blank	23182 Blank C	--		--	0.40 U	0.32 U	0.35 U	1.12 U	73%	86%
Blank Spike C	23182 Blank Spike C	--		--	28.3	21.1	23.7	26.1	71%	92%
Blank Spike D	23182 Blank Spike D	--		--	26.1	19.7	22.7	24.8	66%	89%
	Spike Concentration				25.0	25.0	25.0	25.0		
	Percent Recovery C				113%	84%	95%	104%		
	Percent Recovery D				105%	79%	91%	99%		
MATRIX SPIKE RESULTS										
2318-63	T1103	AC	Storm 1	01/17/05	0.258 U	0.206 U	0.226 U	0.723 U	80%	129% #
2318-63 Spk A	T1103 MS	AC		01/17/05	61.1	59.0	56.9	58.1	108%	163% #
2318-63 Spk B	T1103 MSD	AC		01/17/05	60.7	52.5	56.5	59.5	103%	142% #
	Spike Concentration MS				50.0	50.0	50.0	50.0		
	Spike Concentration MSD				50.0	50.0	50.0	50.0		
	Percent Recovery MS				122% &	118%	114%	116%		
	Percent Recovery MSD				121% &	105%	113%	119%		
	RPD				1%	12%	1%	2%		
Laboratory Duplicate Results										
2318-64 R-1	T1104	LMK122	Storm 1	01/17/05	0.229 U	0.183 U	0.200 U	0.640 U	72%	116%
2318-64 R-2	T1104	LMK122	Storm 1	01/17/05	0.229 U	0.183 U	0.200 U	0.640 U	66%	108%
	RPD				NA	NA	NA	NA		

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SINCLAIR AND DYES INLET 2005 STORMWATER
QC Summary - Sinclair Inlet Stormwater

PCB/Aroclor 1268 Results for Water Samples

MSL Sample ID	Client ID	Site Description	Event	Collection Date	Extraction Date	Analysis Date	Aroclor 1268	PCB008	PCB018	PCB028	PCB052	PCB044	PCB066
							(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)
LABORATORY REPORTING LIMIT (RL)							40	2	2	2	2	2	2
Blanks													
Method Blank (1)	23183 Blank A	--	Storm 1	--	03/04/05	3/23/2005	32.6 U	1.15 U	5.21	0.32 U	1.32 U	0.55 U	0.42 U
Method Blank (2)	23183 Blank B	--	Storm 1	--	03/04/05	3/23/2005	32.6 U	1.15 U	0.75 U	0.32 U	1.32 U	0.55 U	0.42 U
	Mean Blank								2.61				
	10x Mean Blank								26.1				
Method Blank (3)	23184 blk 1	--	Storm 2	--	03/23/05	4/30/2005	32.6 U	2.86	0.75 U	0.32 U	1.32 U	0.55 U	0.42 U
Method Blank (4)	23184 blk 2	--	Storm 2	--	03/23/05	4/30/2005	32.6 U	1.22 J	0.75 U	0.32 U	1.32 U	0.55 U	0.42 U
	Mean Blank							1.43 J					
	10x Mean Blank												
Blank Spike Results													
Blank	23183 Blank B	--	Storm 1	--	03/04/05	03/23/05	32.6 U	1.15 U	0.75 U	0.32 U	1.32 U	0.55 U	0.42 U
Blank Spike A	23181 Blank Spike A	--	Storm 1	--	03/04/05	03/23/05	32.6 U	20.4	21.1	17.5	20.4	19.4	31.4
Blank Spike B	23181 Blank Spike B	--	Storm 1	--	03/04/05	03/24/05	32.6 U	19.4	19.8	20.1	19.1	18.8	22.6
	Spike Concentration						NS	25.0	25.0	25.0	25.0	25.0	25.0
	Percent Recovery A						NA	82%	84%	70%	81%	78%	126% &
	Percent Recovery B						NA	78%	79%	81%	77%	75%	90%
Blank	23184 blk 2	--	Storm 2	--	03/23/05		32.6 U	1.22 J	0.75 U	0.32 U	1.32 U	0.55 U	0.42 U
Blank Spike A	23184 Blank Spike A	--	Storm 2	--	03/23/05	5/1/2005	32.6 U	26.6	30.6	29.2	27.4	29.1	30.7
Blank Spike B	23184 Blank Spike B	--	Storm 2	--	03/23/05	5/1/2005	32.6 U	26.7	32.3	16.7	25.3	26.3	28.6
	Spike Concentration						NS	25.0	25.0	25.0	25.0	25.0	25.0
	Percent Recovery A						NA	101%	122% &	117%	110%	116%	123% &
	Percent Recovery B						NA	102%	129% &	67%	101%	105%	115%
MATRIX SPIKE RESULTS													
2318-234	T1202	B-ST28	Storm 1	03/01/05	03/04/05	03/24/05	28.3 U	1.00 U	0.652 U	0.278 U	1.15 U	0.478 U	0.365 U
2318-234 Spk A	T1202	B-ST28	Storm 1	03/01/05	03/04/05	03/24/05	28.3 U	49.4	14.9	14.5	15.5	13.5	24.1
2318-234 Spk B	T1202	B-ST28	Storm 1	03/01/05	03/04/05	03/24/05	28.3 U	14.1	22.6	20.2	23.8	19.5	19.5
	Spike Concentration MS						NS	21.7	21.7	21.7	21.7	21.7	21.7
	Spike Concentration MSD						NS	21.7	21.7	21.7	21.7	21.7	21.7
	Percent Recovery MS						NA	228% &	68%	67%	71%	62%	111%
	Percent Recovery MSD						NA	65%	104%	93%	110%	90%	90%
	RPD							111% &	41% &	33% &	42% &	36% &	21%

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SINCLAIR AND DYES INLET 2005 STORMWATER
QC Summary - Sinclair Inlet Stormwater

PCB/Aroclor 1268 Results for Water Samples

							Aroclor 1268	PCB008	PCB018	PCB028	PCB052	PCB044	PCB066
MSL Sample ID	Client ID	Site Description	Event	Collection Date	Extraction Date	Analysis Date	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)
<u>MATRIX SPIKE RESULTS, cont.</u>													
2318-312	T1212	PSNS124	Storm 2	03/20/05	03/23/05	5/2/2005	36.2 U	1.28 U	0.83 U	0.36 U	1.47 U	0.61 U	0.47 U
2318-312 Spk A	Spike A	--	--	--	03/23/05	5/2/2005	36.2 U	30.1	30.7	17.8	28.5	30.9	36.0
2318-312 Spk B	Spike B	--	--	--	03/23/05	5/2/2005	36.2 U	31.1	30.6	18.3	28.8	31.2	37.5
	Spike Concentration MS						NS	27.8	27.8	27.8	27.8	27.8	27.8
	Spike Concentration MSD						NS	27.8	27.8	27.8	27.8	27.8	27.8
	Percent Recovery MS						NA	108%	111%	64%	102%	111%	129% &
	Percent Recovery MSD						NA	112%	110%	66%	104%	112%	135% &
	RPD							3%	0%	2%	1%	1%	4%
<u>Laboratory Duplicate Results</u>													
2318-235 R-1	T1203	B-ST/CSO16	Storm 1	03/01/05	03/04/05	03/24/05	20.2 U	5.75	0.466 U	0.199 U	0.820 U	0.342 U	0.261 U
2318-235 R-2	T1203	B-ST/CSO16	Storm 1	03/01/05	03/04/05	03/24/05	20.2 U	5.24	0.466 U	0.199 U	0.820 U	0.342 U	0.261 U
	RPD						NA	9%	NA	NA	NA	NA	NA
2318-310 R-1	T1210	B-ST/CSO16	Storm 2	03/20/05	03/23/05	5/1/2005	27.6 U	0.97 U	0.64 U	0.27 U	1.12 U	0.47 U	0.36 U
2318-310 R-2	T1210	B-ST/CSO16	Storm 2	03/20/05	03/23/05	5/2/2005	27.6 U	0.97 U	0.64 U	0.27 U	1.12 U	0.47 U	0.36 U
	RPD						NA	NA	NA	NA	NA	NA	NA

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SINCLAIR AND DYES INLET 2005 STORMWATER
QC Summary - Sinclair Inlet Stormwater

PCB/Aroclor 1268 Results for Water Samples

					PCB101	PCB077	PCB118	PCB153	PCB105	PCB138	PCB126	PCB187	PCB128
MSL Sample ID	Client ID	Site Description	Event	Collection Date	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)
LABORATORY REPORTING LIMIT (RL)					2	2	2	2	2	2	2	2	2
Blanks													
Method Blank (1)	23183 Blank A	--	Storm 1	--	0.19 U	0.22 U	0.23 U	2.47	0.17 U	0.18 U	0.37 U	0.36 U	0.29 U
Method Blank (2)	23183 Blank B	--	Storm 1	--	0.19 U	0.22 U	0.23 U	0.17 U	0.17 U	0.18 U	0.37 U	0.36 U	0.29 U
	Mean Blank							1.23 J					
	10x Mean Blank												
Method Blank (3)	23184 blk 1	--	Storm 2	--	0.19 U	0.22 U	0.23 U	0.17 U	0.17 U	0.18 U	0.37 U	0.36 U	0.29 U
Method Blank (4)	23184 blk 2	--	Storm 2	--	0.19 U	0.22 U	0.23 U	0.17 U	0.17 U	0.18 U	0.37 U	0.90 J	0.29 U
	Mean Blank											0.45 J	
	10x Mean Blank												
Blank Spike Results													
Blank	23183 Blank B	--	Storm 1	--	0.19 U	0.22 U	0.23 U	0.17 U	0.17 U	0.18 U	0.37 U	0.36 U	0.29 U
Blank Spike A	23181 Blank Spike A	--	Storm 1	--	28.3	26.0	31.9	31.6	34.0	30.1	34.7	32.5	31.2
Blank Spike B	23181 Blank Spike B	--	Storm 1	--	21.4	20.2	21.5	22.9	21.9	20.2	24.3	23.2	21.4
	Spike Concentration				25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
	Percent Recovery A				113%	104%	127% &	126% &	136% &	120%	139% &	130% &	125% &
	Percent Recovery B				86%	81%	86%	92%	88%	81%	97%	93%	86%
Blank	23184 blk 2	--	Storm 2	--	0.19 U	0.22 U	0.23 U	0.17 U	0.17 U	0.18 U	0.37 U	0.90 J	0.29 U
Blank Spike A	23184 Blank Spike A	--	Storm 2	--	30.3	28.0	29.0	31.7	31.5	31.9	33.5	30.3	28.2
Blank Spike B	23184 Blank Spike B	--	Storm 2	--	28.5	22.8	25.2	27.3	26.9	29.2	30.4	27.5	24.6
	Spike Concentration				25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
	Percent Recovery A				121% &	112%	116%	127% &	126% &	127% &	134% &	118%	113%
	Percent Recovery B				114%	91%	101%	109%	108%	117%	122% &	106%	99%
MATRIX SPIKE RESULTS													
2318-234	T1202	B-ST28	Storm 1	03/01/05	0.165 U	0.191 U	0.200 U	0.148 U	0.148 U	0.157 U	0.322 U	0.313 U	0.252 U
2318-234 Spk A	T1202	B-ST28	Storm 1	03/01/05	24.3	15.5	20.2	20.7	19.2	18.4	20.8	21.6	17.5
2318-234 Spk B	T1202	B-ST28	Storm 1	03/01/05	37.8	6.57	19.1	28.2	24.7	20.3	23.7	27.3	21.5
	Spike Concentration MS				21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7
	Spike Concentration MSD				21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7
	Percent Recovery MS				112%	71%	93%	96%	89%	85%	96%	100%	80%
	Percent Recovery MSD				174% &	30% &	88%	130% &	114%	94%	109%	126% &	99%
	RPD				43% &	81% &	6%	31% &	25%	10%	13%	23%	21%

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SINCLAIR AND DYES INLET 2005 STORMWATER
QC Summary - Sinclair Inlet Stormwater

PCB/Aroclor 1268 Results for Water Samples

					PCB101	PCB077	PCB118	PCB153	PCB105	PCB138	PCB126	PCB187	PCB128
MSL Sample ID	Client ID	Site Description	Event	Collection Date	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)
<u>MATRIX SPIKE RESULTS, cont.</u>													
2318-312	T1212	PSNS124	Storm 2	03/20/05	20.5	0.24 U	11.2	35.8	6.98	45.4	0.41 U	17.2	2.35
2318-312 Spk A	Spike A	--	--	--	33.0	29.2	29.2	34.1	31.2	34.2	29.9	31.8	19.6
2318-312 Spk B	Spike B	--	--	--	34.2	31.2	29.4	33.1	33.0	35.8	30.0	31.6	20.2
	Spike Concentration MS				27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8
	Spike Concentration MSD				27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8
	Percent Recovery MS				45%	105%	65%	NC	87%	40%	108%	53%	62%
	Percent Recovery MSD				49%	112%	65%	NC	94%	35% &	108%	52%	64%
	RPD				9%	7%	1%		7%	16%	0%	2%	3%
<u>Laboratory Duplicate Results</u>													
2318-235 R-1	T1203	B-ST/CSO16	Storm 1	03/01/05	0.118 U	0.137 U	1.80 J	0.106 U	0.106 U	0.112 U	0.230 U	0.224 U	0.499 J
2318-235 R-2	T1203	B-ST/CSO16	Storm 1	03/01/05	0.118 U	0.137 U	1.40 J	0.106 U	0.106 U	0.112 U	0.230 U	0.224 U	0.346 J
	RPD				NA	NA	25%	NA	NA	NA	NA	NA	36% &
2318-310 R-1	T1210	B-ST/CSO16	Storm 2	03/20/05	0.16 U	0.19 U	4.30	9.30	7.46	11.1	0.31 U	0.31 U	1.36 J
2318-310 R-2	T1210	B-ST/CSO16	Storm 2	03/20/05	0.16 U	0.19 U	2.30	6.46	4.57	4.55	0.31 U	0.31 U	0.25 U
	RPD				NA	NA	61% &	36% &	48% &	84% &	NA	NA	NA

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SINCLAIR AND DYES INLET 2005 STORMWATER
QC Summary - Sinclair Inlet Stormwater

PCB/Aroclor 1268 Results for Water Samples

MSL Sample ID	Client ID	Site Description	Event	Collection Date	Surrogate Recoveries					
					PCB200	PCB180	PCB170	PCB195	PCB103	PCB198
					(ng/L)	(ng/L)	(ng/L)	(ng/L)	% Recovery	% Recovery
LABORATORY REPORTING LIMIT (RL)					2	2	2	2		
Blanks										
Method Blank (1)	23183 Blank A	--	Storm 1	--	3.86	0.32 U	0.35 U	1.12 U	56%	84%
Method Blank (2)	23183 Blank B	--	Storm 1	--	0.40 U	0.32 U	0.35 U	1.12 U	78%	97%
	Mean Blank				1.93 J					
	10x Mean Blank									
Method Blank (3)	23184 blk 1	--	Storm 2	--	0.40 U	0.32 U	0.35 U	1.12 U	94%	90%
Method Blank (4)	23184 blk 2	--	Storm 2	--	0.40 U	0.32 U	0.35 U	1.12 U	115%	100%
	Mean Blank									
	10x Mean Blank									
Blank Spike Results										
Blank	23183 Blank B	--	Storm 1	--	0.40 U	0.32 U	0.35 U	1.12 U	78%	97%
Blank Spike A	23181 Blank Spike A	--	Storm 1	--	30.5	19.4	26.5	30.0	68%	122% #
Blank Spike B	23181 Blank Spike B	--	Storm 1	--	21.4	14.7	21.1	23.3	81%	92%
	Spike Concentration				25.0	25.0	25.0	25.0		
	Percent Recovery A				122% &	78%	106%	120%		
	Percent Recovery B				85%	59%	84%	93%		
Blank	23184 blk 2	--	Storm 2	--	0.40 U	0.32 U	0.35 U	1.12 U	115%	100%
Blank Spike A	23184 Blank Spike A	--	Storm 2	--	29.2	22.4	27.6	29.0	113%	118%
Blank Spike B	23184 Blank Spike B	--	Storm 2	--	28.2	40.4	24.4	25.6	116%	99%
	Spike Concentration				25.0	25.0	25.0	25.0		
	Percent Recovery A				117%	90%	110%	116%		
	Percent Recovery B				113%	162% &	98%	103%		
MATRIX SPIKE RESULTS										
2318-234	T1202	B-ST28	Storm 1	03/01/05	0.348 U	0.278 U	0.304 U	1.13	73%	93%
2318-234 Spk A	T1202	B-ST28	Storm 1	03/01/05	19.4	12.5	15.4	19.1	60%	77%
2318-234 Spk B	T1202	B-ST28	Storm 1	03/01/05	25.8	22.5	17.1	21.8	68%	93%
	Spike Concentration MS				21.7	21.7	21.7	21.7		
	Spike Concentration MSD				21.7	21.7	21.7	21.7		
	Percent Recovery MS				89%	58%	71%	83%		
	Percent Recovery MSD				119%	104%	79%	95%		
	RPD				28%	57% &	11%	14%		

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SINCLAIR AND DYES INLET 2005 STORMWATER
QC Summary - Sinclair Inlet Stormwater

PCB/Aroclor 1268 Results for Water Samples

MSL Sample ID	Client ID	Site Description	Event	Collection Date	Surrogate Recoveries					
					PCB200	PCB180	PCB170	PCB195	PCB103	PCB198
					(ng/L)	(ng/L)	(ng/L)	(ng/L)	% Recovery	% Recovery
<u>MATRIX SPIKE RESULTS, cont.</u>										
2318-312	T1212	PSNS124	Storm 2	03/20/05	6.69	0.36 U	16.4	4.63	100%	101%
2318-312 Spk A	Spike A	--	--	--	28.6	25.2	25.5	29.0	83%	99%
2318-312 Spk B	Spike B	--	--	--	30.7	47.6	26.2	29.3	89%	106%
	Spike Concentration MS				27.8	27.8	27.8	27.8		
	Spike Concentration MSD				27.8	27.8	27.8	27.8		
	Percent Recovery MS				79%	91%	33% &	88%		
	Percent Recovery MSD				86%	171% &	35% &	89%		
	RPD				9%	61% &	7%	1%		
<u>Laboratory Duplicate Results</u>										
2318-235 R-1	T1203	B-ST/CSO16	Storm 1	03/01/05	0.248 U	0.199 U	0.217 U	1.86 J	62%	79%
2318-235 R-2	T1203	B-ST/CSO16	Storm 1	03/01/05	0.248 U	0.199 U	0.217 U	1.43 J	53%	65%
	RPD				NA	NA	NA	27%		
2318-310 R-1	T1210	B-ST/CSO16	Storm 2	03/20/05	0.96 J	0.27 U	0.30 U	0.95 U	98%	110%
2318-310 R-2	T1210	B-ST/CSO16	Storm 2	03/20/05	0.34 U	0.27 U	0.30 U	0.95 U	93%	85%
	RPD				NA	NA	NA	0%		

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SINCLAIR AND DYES INLET 2005 STORMWATER
QC Summary - Dyes Inlet and Springbrook Creek Stormwater
PCB/Aroclor 1268 Results for Water Samples

							Aroclor 1268	PCB008	PCB018	PCB028	PCB052	PCB044
MSL Sample ID	Client ID	Site Description	Event	Collection Date	Extraction Date	Analysis Date	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)
LABORATORY REPORTING LIMIT (RL)							40	2	2	2	2	2
Blanks												
Method Blank (1)	23185 blk	--	Storm 1	--	3/29/2005	5/1/2005	32.6 U	1.15 U	0.75 U	0.32 U	1.32 U	0.55 U
Method Blank (2)	23186 blk	--	Storm 2/wet season	--	4/5/2005	5/1/2005	32.6 U	1.15 U	0.75 U	0.32 U	1.32 U	0.55 U
Method Blank (3)	23187 blk	--	Make-up Storm	--	4/13/2005	5/1/2005	32.6 U	1.15 U	0.75 U	0.32 U	1.32 U	0.55 U
Blank Spike Results												
Blank	23185 blk	--	Storm 1	--	3/29/2005	5/1/2005	32.6 U	1.15 U	0.75 U	0.32 U	1.32 U	0.55 U
Blank Spike A	23185 blk spk A	--	Storm 1	--	3/29/2005	5/1/2005	32.6 U	24.8	30.9	17.1	25.9	25.4
Blank Spike B	23185 blk spk B	--	Storm 1	--	3/29/2005	5/1/2005	32.6 U	26.5	31.8	32.9	26.2	28.0
	Spike Concentration						NS	25.0	25.0	25.0	25.0	25.0
	Percent Recovery A						NA	99%	124% &	68%	104%	102%
	Percent Recovery B						NA	106%	127% &	132%	105%	112%
Blank	23186 blk	--	Storm 2/wet season	--	4/5/2005	5/1/2005	32.6 U	1.15 U	0.75 U	0.32 U	1.32 U	0.55 U
Blank Spike A	23186 blk spk A	--	Storm 2/wet season	--	4/5/2005	5/1/2005	32.6 U	13.8	17.4	15.6	14.9	15.8
Blank Spike B	23186 blk spk B	--	Storm 2/wet season	--	4/5/2005	5/1/2005	32.6 U	12.8	14.7	14.3	13.4	14.3
	Spike Concentration						NS	25.0	25.0	25.0	25.0	25.0
	Percent Recovery A						NA	55%	70%	62%	60%	63%
	Percent Recovery B						NA	51%	59%	57%	54%	57%
Blank	23187 blk	--	Make-up Storm	--	4/13/2005	5/1/2005	32.6 U	1.15 U	0.75 U	0.32 U	1.32 U	0.55 U
Blank Spike A	23187 blk spk	--	Make-up Storm	--	4/13/2005	5/1/2005	32.6 U	31.0	34.6	34.7	31.8	31.7
	Spike Concentration						NS	25.0	25.0	25.0	25.0	25.0
	Percent Recovery C						NA	124% &	138% &	139% &	127% &	127% &

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SINCLAIR AND DYES INLET 2005 STORMWATER
QC Summary - Dyes Inlet and Springbrook Creek Stormwater
PCB/Aroclor 1268 Results for Water Samples

MSL Sample ID	Client ID	Site Description	Event	Collection Date	Extraction Date	Analysis Date	Aroclor 1268	PCB008	PCB018	PCB028	PCB052	PCB044
							(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)
MATRIX SPIKE RESULTS												
2318-386	T1304	CH	Storm 1	03/27/05	3/29/2005	5/2/2005	29.4 U	1.04 U	0.68 U	0.29 U	1.19 U	0.50 U
2318-386 Spk A	Spike A	--	Storm 1	--	3/29/2005	5/3/2005	32.6 U	33.2	34.2	32.5	28.0	28.6
2318-386 Spk B	Spike B	--	Storm 1	--	3/29/2005	5/3/2005	32.6 U	33.3	31.3	29.9	26.8	27.1
	Spike Concentration						NS	25.0	25.0	25.0	25.0	25.0
	Percent Recovery MS						NA	133% &	137% &	130% &	112%	114%
	Percent Recovery MSD						NA	133% &	125% &	120%	107%	108%
	RPD							0%	9%	8%	5%	5%
2318-445	T1313	SW6	Storm 2/wet season	04/01/05	4/5/2005	5/3/2005	26.4 U	0.93 U	0.61 U	0.26 U	1.07 U	0.45 U
2318-445 Spk A	Spike A	--	Storm 2/wet season	--	4/5/2005	5/3/2005	32.6 U	13.9	19.0	9.37	15.8	20.3
2318-445 Spk B	Spike B	--	Storm 2/wet season	--	4/5/2005	5/3/2005	32.6 U	12.6	18.1	10.6	17.2	22.0
	Spike Concentration						NS	25.0	25.0	25.0	25.0	25.0
	Percent Recovery MS						NA	56%	76%	37% &	63%	81%
	Percent Recovery MSD						NA	50%	73%	42%	69%	88%
	RPD							10%	4%	12%	8%	8%
Laboratory Duplicate Results												
2318-382 R-1	T1302	CC	Storm 1	03/27/05	3/29/2005	5/2/2005	23.3 U	0.82 U	0.54 U	0.23 U	0.94 U	0.39 U
2318-382 R-2	T1302	CC	Storm 1	03/27/05	3/29/2005	5/2/2005	23.3 U	0.82 U	0.54 U	0.23 U	0.94 U	0.39 U
	RPD						NA	NA	NA	NA	NA	NA
2318-446 R-1	T1314	B-ST12	Storm 2/wet season	04/01/05	4/5/2005	5/3/2005	24.6 U	0.87 U	0.57 U	0.24 U	1.00 U	0.42 U
2318-446 R-2	T1314	B-ST12	Storm 2/wet season	04/01/05	4/5/2005	5/3/2005	24.6 U	0.87 U	0.57 U	0.24 U	1.00 U	0.42 U
	RPD						NA	NA	NA	NA	NA	NA

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SINCLAIR AND DYES INLET 2005 STORMWATER
QC Summary - Dyes Inlet and Springbrook Creek Stormwater
PCB/Aroclor 1268 Results for Water Samples

					PCB066	PCB101	PCB077	PCB118	PCB153	PCB105	PCB138	PCB126
MSL Sample ID	Client ID	Site Description	Event	Collection Date	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)
LABORATORY REPORTING LIMIT (RL)					2	2	2	2	2	2	2	2
<u>Blanks</u>												
Method Blank (1)	23185 blk	--	Storm 1	--	0.42 U	0.19 U	0.22 U	0.23 U	0.17 U	0.17 U	0.18 U	0.37 U
Method Blank (2)	23186 blk	--	Storm 2/wet season	--	0.42 U	1.35 J	0.22 U	0.23 U	0.17 U	0.17 U	0.18 U	0.37 U
Method Blank (3)	23187 blk	--	Make-up Storm	--	0.42 U	0.19 U	0.22 U	0.23 U	0.17 U	0.17 U	0.18 U	0.37 U
<u>Blank Spike Results</u>												
Blank	23185 blk	--	Storm 1	--	0.42 U	0.19 U	0.22 U	0.23 U	0.17 U	0.17 U	0.18 U	0.37 U
Blank Spike A	23185 blk spk A	--	Storm 1	--	28.0	27.0	25.4	26.1	27.9	26.9	29.4	28.8
Blank Spike B	23185 blk spk B	--	Storm 1	--	29.7	27.8	27.9	27.2	30.0	27.4	30.8	30.7
	Spike Concentration				25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
	Percent Recovery A				112%	108%	102%	104%	112%	108%	118%	115%
	Percent Recovery B				119%	111%	112%	109%	120%	110%	123% &	123% &
Blank	23186 blk	--	Storm 2/wet season	--	0.42 U	1.35 J	0.22 U	0.23 U	0.17 U	0.17 U	0.18 U	0.37 U
Blank Spike A	23186 blk spk A	--	Storm 2/wet season	--	16.6	16.4	14.8	15.3	16.8	29.9	31.9	33.2
Blank Spike B	23186 blk spk B	--	Storm 2/wet season	--	15.2	14.8	14.4	14.8	15.7	28.0	29.2	30.5
	Spike Concentration				25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
	Percent Recovery A				66%	60%	59%	61%	67%	120%	127% &	133% &
	Percent Recovery B				61%	54%	58%	59%	63%	112%	117%	122% &
Blank	23187 blk	--	Make-up Storm	--	0.42 U	0.19 U	0.22 U	0.23 U	0.17 U	0.17 U	0.18 U	0.37 U
Blank Spike A	23187 blk spk	--	Make-up Storm	--	33.5	33.7	34.7	32.4	37.5	34.2	37.1	37.2
	Spike Concentration				25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
	Percent Recovery C				134% &	135% &	139% &	130% &	150% &	137% &	148% &	149% &

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SINCLAIR AND DYES INLET 2005 STORMWATER
QC Summary - Dyes Inlet and Springbrook Creek Stormwater
PCB/Aroclor 1268 Results for Water Samples

MSL Sample ID	Client ID	Site Description	Event	Collection Date	PCB066	PCB101	PCB077	PCB118	PCB153	PCB105	PCB138	PCB126
					(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)
MATRIX SPIKE RESULTS												
2318-386	T1304	CH	Storm 1	03/27/05	0.38 U	0.17 U	0.20 U	0.21 U	0.15 U	0.15 U	0.16 U	0.33 U
2318-386 Spk A	Spike A	--	Storm 1	--	29.8	29.9	31.0	28.2	30.3	33.5	36.6	34.3
2318-386 Spk B	Spike B	--	Storm 1	--	38.6	28.4	26.4	26.8	28.7	29.6	30.6	28.2
	Spike Concentration				25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
	Percent Recovery MS				119%	120%	124% &	113%	121% &	134% &	147% &	137% &
	Percent Recovery MSD				154% &	114%	106%	107%	115%	119%	122% &	113%
	RPD				26%	5%	16%	5%	6%	12%	18%	19%
2318-445	T1313	SW6	Storm 2/wet season	04/01/05	0.34 U	0.34 J	0.18 U	0.19 U	0.14 U	0.14 U	0.15 U	0.30 U
2318-445 Spk A	Spike A	--	Storm 2/wet season	--	18.1	16.4	14.6	15.4	16.1	30.6	30.0	28.2
2318-445 Spk B	Spike B	--	Storm 2/wet season	--	20.6	18.0	17.2	16.7	17.5	31.9	31.8	33.3
	Spike Concentration				25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
	Percent Recovery MS				73%	64%	58%	61%	64%	123% &	120%	113%
	Percent Recovery MSD				82%	71%	69%	67%	70%	127% &	127% &	133% &
	RPD				13%	10%	17%	8%	9%	4%	6%	17%
Laboratory Duplicate Results												
2318-382 R-1	T1302	CC	Storm 1	03/27/05	0.30 U	0.27 J	0.16 U	0.16 U	0.12 U	0.12 U	0.13 U	0.26 U
2318-382 R-2	T1302	CC	Storm 1	03/27/05	0.30 U	0.14 U	0.16 U	0.16 U	0.12 U	0.12 U	0.13 U	0.26 U
	RPD				NA	NA	NA	NA	NA	NA	NA	NA
2318-446 R-1	T1314	B-ST12	Storm 2/wet season	04/01/05	0.32 U	0.14 U	0.42 J	0.17 U	0.13 U	0.81 J	0.14 U	0.28 U
2318-446 R-2	T1314	B-ST12	Storm 2/wet season	04/01/05	0.32 U	0.14 U	0.44 J	0.17 U	0.13 U	0.13 U	0.14 U	0.28 U
	RPD				NA	NA	4%	NA	NA	NA	NA	NA

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SINCLAIR AND DYES INLET 2005 STORMWATER
QC Summary - Dyes Inlet and Springbrook Creek Stormwater
PCB/Aroclor 1268 Results for Water Samples

MSL Sample ID	Client ID	Site Description	Event	Collection Date	Surrogate Recoveries							
					PCB187	PCB128	PCB200	PCB180	PCB170	PCB195	PCB103	PCB198
					(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	% Recovery	% Recovery
LABORATORY REPORTING LIMIT (RL)					2	2	2	2	2	2		
Blanks												
Method Blank (1)	23185 blk	--	Storm 1	--	0.36 U	0.29 U	0.40 U	0.32 U	0.35 U	1.12 U	97%	113%
Method Blank (2)	23186 blk	--	Storm 2/wet season	--	1.71 J	0.29 U	0.40 U	0.32 U	0.35 U	1.12 U	96%	105%
Method Blank (3)	23187 blk	--	Make-up Storm	--	0.36 U	0.29 U	0.40 U	0.32 U	0.35 U	1.12 U	88%	102%
Blank Spike Results												
Blank	23185 blk	--	Storm 1	--	0.36 U	0.29 U	0.40 U	0.32 U	0.35 U	1.12 U	97%	113%
Blank Spike A	23185 blk spk A	--	Storm 1	--	27.5	24.8	26.7	19.8	24.5	25.8	108%	100%
Blank Spike B	23185 blk spk B	--	Storm 1	--	29.1	26.6	28.2	45.3	26.4	28.0	93%	109%
	Spike Concentration				25.0	25.0	25.0	25.0	25.0	25.0		
	Percent Recovery A				110%	99%	107%	79%	98%	103%		
	Percent Recovery B				117%	107%	113%	181%	105%	112%		
Blank	23186 blk	--	Storm 2/wet season	--	1.71 J	0.29 U	0.40 U	0.32 U	0.35 U	1.12 U	96%	105%
Blank Spike A	23186 blk spk A	--	Storm 2/wet season	--	29.8	27.6	31.6	39.4	26.8	28.2	61%	119%
Blank Spike B	23186 blk spk B	--	Storm 2/wet season	--	27.6	25.7	26.8	20.1	24.1	26.6	47%	94%
	Spike Concentration				25.0	25.0	25.0	25.0	25.0	25.0		
	Percent Recovery A				112%	110%	126% &	158% &	107%	113%		
	Percent Recovery B				104%	103%	107%	80%	97%	106%		
Blank	23187 blk	--	Make-up Storm	--	0.36 U	0.29 U	0.40 U	0.32 U	0.35 U	1.12 U	88%	102%
Blank Spike A	23187 blk spk	--	Make-up Storm	--	35.0	32.6	33.9	43.8	31.0	32.9	104%	115%
	Spike Concentration				25.0	25.0	25.0	25.0	25.0	25.0		
	Percent Recovery C				140% &	130% &	135% &	175% &	124% &	131% &		

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SINCLAIR AND DYES INLET 2005 STORMWATER
QC Summary - Dyes Inlet and Springbrook Creek Stormwater
PCB/Aroclor 1268 Results for Water Samples

MSL Sample ID	Client ID	Site Description	Event	Collection Date	Surrogate Recoveries							
					PCB187	PCB128	PCB200	PCB180	PCB170	PCB195	PCB103	PCB198
					(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	(ng/L)	% Recovery	% Recovery
<u>MATRIX SPIKE RESULTS</u>												
2318-386	T1304	CH	Storm 1	03/27/05	0.68 J	0.26 U	0.36 U	0.29 U	0.32 U	1.01 U	85%	91%
2318-386 Spk A	Spike A	--	Storm 1	--	34.0	30.7	33.2	45.7	27.4	27.5	93%	101%
2318-386 Spk B	Spike B	--	Storm 1	--	27.3	30.2	27.3	22.4	25.3	27.5	96%	106%
	Spike Concentration				25.0	25.0	25.0	25.0	25.0	25.0		
	Percent Recovery MS				133% &	123% &	133% &	183% &	110%	110%		
	Percent Recovery MSD				106%	121% &	109%	90%	101%	110%		
	RPD				22%	2%	19%	68% &	8%	0%		
2318-445	T1313	SW6	Storm 2/wet season	04/01/05	0.29 U	0.23 U	0.32 U	0.26 U	0.28 U	0.91 U	91%	104%
2318-445 Spk A	Spike A	--	Storm 2/wet season	--	27.6	26.3	25.4	22.8	24.1	27.0	52%	105%
2318-445 Spk B	Spike B	--	Storm 2/wet season	--	30.6	27.7	30.8	23.9	26.0	28.0	61%	112%
	Spike Concentration				25.0	25.0	25.0	25.0	25.0	25.0		
	Percent Recovery MS				110%	105%	101%	91%	96%	108%		
	Percent Recovery MSD				122% &	111%	123% &	96%	104%	112%		
	RPD				10%	5%	19%	5%	7%	4%		
<u>Laboratory Duplicate Results</u>												
2318-382 R-1	T1302	CC	Storm 1	03/27/05	0.26 U	0.21 U	0.29 U	0.23 U	0.25 U	0.80 U	95%	112%
2318-382 R-2	T1302	CC	Storm 1	03/27/05	0.26 U	0.21 U	0.29 U	0.23 U	0.25 U	0.80 U	99%	104%
	RPD				NA	NA	NA	NA	NA	NA		
2318-446 R-1	T1314	B-ST12	Storm 2/wet season	04/01/05	0.27 U	0.22 U	0.30 U	0.24 U	0.26 U	0.85 U	102%	100%
2318-446 R-2	T1314	B-ST12	Storm 2/wet season	04/01/05	0.27 U	0.22 U	0.30 U	0.24 U	0.26 U	0.85 U	110%	106%
	RPD				NA	NA	NA	NA	NA	NA		

QA Narratives: 2005 Storm Water Organic Contaminants

- Gorst
- Sinclair Inlet
- Dyes Inlet

QAI/QC NARRATIVE

PROJECT: Sinclair and Dyes Inlet Storm Water Study – Storm Season 2005 Gorst Events 1 and 2
PARAMETER: Organics – PAH, Phthalates and PCBs
LABORATORY: Battelle Marine Sciences Laboratory, Sequim, Washington
MATRIX: Storm Water (zero or negligible salinity)

SAMPLE CUSTODY AND PROCESSING: Battelle received storm water samples collected during the 2005 Gorst Events 1 and 2. Samples from Gorst Event 1 were received on 01/18/05. Samples from Gorst Event 2 were received on 01/23/05. All samples were received in good condition. Select samples from each event were composited at MSL by either flow proportioning or equal proportioning of discrete samples.

Samples were assigned a Battelle Central File (CF) identification number (2318) and were entered into Battelle's sample tracking system.

The following lists information on sample receipt and processing activities:

EVENT	Composite Collection Date	Laboratory Arrival Date	Extraction Date	PAH/Phthalate Analysis Date	PCB Analysis Date
Gorst Storm 1	01/17/05	01/18/05	01/20/05 and 01/21/05	02/16/05	02/18/05 02/19/05
Gorst Storm 2	01/22/05	01/23/05	01/26/05		

QA/QC PROJECT DATA QUALITY OBJECTIVES:

Analyte	Analytical Method	Reporting Limits (ng/L)	MS Range of Recovery	Laboratory Control Sample	Surrogate Spike Recovery
PAH	GC-MS	20	40-120%	40-120%	40-120%
Phthalates	GC-MS	40	40-120%	40-120%	40-120%
PCB Congeners	GC-ECD	2	40-120%	40-120%	40-120%
Aroclor 1268	GC-ECD	40	40-120%	40-120%	40-120%

METHODS: All samples were extracted and analyzed in accordance with the following Battelle methods:

- o *MSL-O-010 Extraction and Cleanup of Water for Semivolatile Organics Following the Surrogate Internal Standard Method.*
- o *MSL-O-008 Operation and Maintenance of Gas Chromatographs (GC) and Gas Chromatograph/Mass Spectrometer (GC/MS) Systems.*
- o *MSL-O-015 Identification and Quantification of Polynuclear Aromatic Hydrocarbons by Gas Chromatography/Mass Spectrometry Following EPA Method 8270B Quality Control Criteria.*
- o *MSL-O-016 Analysis of PCBs and Chlorinated Pesticides by Gas Chromatography with Electron Capture Detection Following EPA METHOD 8080A Quality Control Criteria.*

Results are reported as not blank corrected in units of ng/L for each sample.

HOLDING TIMES: Established holding times of 7 days from collection for the extraction procedure and 40 days from extraction for the analyses were achieved for all samples.

DETECTION LIMITS: Detection limits were determined on a per sample basis and data are flagged (U) using sample specific MDLs. Reporting limits (RL) were established based on a low standard concentration and data are flagged (J) to identify concentrations less than the RL but greater than the MDL.

QAI/QC NARRATIVE

DATA QUALIFIERS:

- U Not detected at or above MDL, sample specific MDL reported
- J Concentration less than RL but greater than MDL
- E Estimate
- & Spiked sample outside control limits of 40-120% recovery; precision <30%
- B Sample concentration is <10x blank
- * Associated Surrogate recovery exceeds control limit (flag applied to samples)
- # Surrogate recovery outside control limits (40-120% - flag applied to surrogate)

METHOD BLANK: *PAHs and Phthalates:*

Three method blanks were extracted and analyzed with this batch of samples. Analytes were not detected in the PAH method blanks above the MDL with the exception of dibenz[a,h]anthracene. The two subsequent blanks did not contain detectable dibenz[a,h]anthracene and only one sample (T1103-AC) in the extraction batch contained dibenz[a,h]anthracene at a level greater than the MDL. The data point was flagged.

The three phthalate compounds were detected in the blank. The phthalate data are flagged as estimates and data usage should be limited to research evaluation.

PCBs:

Three method blanks were extracted and analyzed with this batch of samples. Analytes were not detected in the blank above the RL with the exception of PCB052. This congener was not detected above the MDL for any of the samples.

**LABORATORY
CONTROL
SAMPLE/BLANK
SPIKE RECOVERY:**

PAHs and Phthalates:

Four blank spikes were extracted and analyzed with this batch of samples. Blank spike samples were within the QC criterion of 40-120% for all PAH compounds except the 2-methyl naphthalene (39%, 28%, 36%, and 27%). Two samples contained detectable concentrations of 2-methyl naphthalene. The data are flagged as estimates (E).

Four blank spikes was extracted and analyzed with this batch of samples. Due to the variable method blanks a majority of the blank spikes for the phthalate compounds were outside the QC criterion. The data are all flagged as estimated and data usage should be limited to research evaluation.

PCBs:

Four blank spikes was extracted and analyzed with this batch of samples. The PCB198 surrogate in blank spike A recovered high indicating the sample volume was reduced more than the 1ml anticipated. As a result, the spike recoveries for PCB congeners 066 and greater recovered high. In all cases, the additional blank spikes were within the QC criterion.

**MATRIX SPIKE
RECOVERY:**

PAHs and Phthalates:

Matrix spike (MS) and matrix spike duplicate (MSD) samples were extracted and analyzed with this batch of samples. The percent recoveries for the MS/MSD samples were within the QC criterion of 40-120% for all PAH compounds except one spike for benz[a]anthracene (121%).

The matrix spike recoveries for the phthalate compounds were all outside the QC criterion. The data are all flagged as estimated and data usage should be limited to research evaluation.

QAI/QC NARRATIVE

MATRIX SPIKE RECOVERY conti.:

PCBs:

Matrix spike (MS) and matrix spike duplicate (MSD) samples were extracted and analyzed with this batch of samples. PCB congeners were within the QC criterion of 40-120% with the exception of PCB066 (126%), PCB153 (121%, 123%), PCB105 (121%), PCB126 (130%), PCB128 (126%), and PCB200 (122%, 121%). The recoveries were less than 10% outside the criterion and may be attributed to the high surrogate recovery for PCB198. In all cases, expectable blank spikes support the data and these PCB congeners were not detected in the samples above the RL.

LABORATORY PRECISION:

Laboratory precision was expressed as the relative percent difference (RPD) between the matrix spike duplicates and the laboratory duplicates.

PAHs and Phthalates:

The RPD values for the matrix spike duplicate were within the QC criterion for all PAH and phthalate compounds.

The RPD values for the laboratory duplicates were within the QC criterion for all PAH and phthalate compounds with the exception of phenanthrene (77%) and chrysene (76%). The high RPD values may be attributed to the particulate material in the stormwater samples.

PCBs:

The RPD values for the matrix spike duplicate were within the QC criterion for all PCB congeners with the exception of PCB028 (73%).

The RPD values for the laboratory duplicates were within the QC criterion for all PCB congeners detected above the RL.

SURROGATE RECOVERIES:

Surrogates compounds were used to evaluate the recovery of the extraction and clean-up process for the PAHs, phthalates, and PCB congeners.

PAHs and Phthalates:

The percent recoveries for the surrogates were all within the project QC criterion of 40-120% recovery.

PCBs:

The PCB198 surrogate was outside the project QC criterion of 40-120% for three field samples. The impact to the data was negligible as the surrogate recoveries were high, but no PCB congeners were detected in the sample above the RL. The PCB198 surrogate was also outside the QC criterion for two method blanks, one blank spike, and two matrix spikes. In all cases, the alternate surrogate was acceptable.

QAI/QC NARRATIVE

PROJECT: Sinclair and Dyes Inlet Storm Water Study – Storm Season 2005 Sinclair Storms 1 and 2
PARAMETER: Organics – PAH, Phthalates and PCBs
LABORATORY: Battelle Marine Sciences Laboratory, Sequim, Washington
MATRIX: Storm Water (zero or negligible salinity)

SAMPLE CUSTODY AND PROCESSING: Battelle received storm water samples collected during the 2005 Sinclair Event Storms 1 and 2. Samples from Sinclair Storm 1 were received on 03/02/05. Samples from Sinclair storm 2 were received on 03/21/05. All samples were received in good condition. Select samples from each event were composited at MSL by either flow proportioning or equal proportioning of discrete samples.

Samples were assigned a Battelle Central File (CF) identification number (2318) and were entered into Battelle's sample tracking system.

The following lists information on sample receipt and processing activities:

EVENT	Composite Collection Date	Laboratory Arrival Date	Extraction Date	PAH/ Phthalate Analysis Date	PCB Analysis Date
Sinclair Storm 1	03/02/05	03/02/05	03/04/05	03/18/05	03/24/05
Sinclair Storm 2	03/21/05	03/21/05	03/20/05	04/30/05	05/01/05 05/02/05

QA/QC PROJECT DATA QUALITY OBJECTIVES:

Analyte	Analytical Method	Reporting Limits (ng/L)	MS Range of Recovery	Laboratory Control Sample	Surrogate Spike Recovery
PAH	GC-MS	20	40-120%	40-120%	40-120%
Phthalates	GC-MS	40	40-120%	40-120%	40-120%
PCB Congeners	GC-ECD	2	40-120%	40-120%	40-120%
Aroclor 1268	GC-ECD	40	40-120%	40-120%	40-120%

METHODS: All samples were extracted and analyzed in accordance with the following Battelle methods:

- o *MSL-O-010 Extraction and Cleanup of Water for Semivolatile Organics Following the Surrogate Internal Standard Method.*
- o *MSL-O-008 Operation and Maintenance of Gas Chromatographs (GC) and Gas Chromatograph/Mass Spectrometer (GC/MS) Systems.*
- o *MSL-O-015 Identification and Quantification of Polynuclear Aromatic Hydrocarbons by Gas Chromatography/Mass Spectrometry Following EPA Method 8270B Quality Control Criteria.*
- o *MSL-O-016 Analysis of PCBs and Chlorinated Pesticides by Gas Chromatography with Electron Capture Detection Following EPA METHOD 8080A Quality Control Criteria.*

Results are reported as not blank corrected in units of ng/L for each sample.

HOLDING TIMES: Established holding times of 7 days from collection for the extraction procedure and 40 days from extraction for the analyses were achieved for all samples.

DETECTION LIMITS: Detection limits were determined on a per sample basis and data are flagged (U) using sample specific MDLs. Reporting limits (RL) were established based on a low standard concentration and data are flagged (J) to identify concentrations less than the RL but greater than the MDL.

QAI/QC NARRATIVE

DATA QUALIFIERS:

- U Not detected at or above MDL, sample specific MDL reported
- J Concentration less than RL but greater than MDL
- E Estimate
- & Spiked sample outside control limits of 40-120% recovery; precision <30%
- B Sample concentration is <10x blank
- * Associated Surrogate recovery exceeds control limit (flag applied to samples)
- # Surrogate recovery outside control limits (40-120% - flag applied to surrogate)

ANALYTICAL NOTE: Two samples in this batch were lost during the extraction processes due to broken glassware. One sample was from storm 1 and one sample from storm 2. In both cases the sample lost was collected from PSNS126.

METHOD BLANK: *PAHs and Phthalates:*
Two method blanks were extracted and analyzed with each of the two batches of stormwater samples. The average blank for each batch of samples was less than the RL for all analytes except benzo[a]pyrene in the storm 1 batch. Sample concentrations less than 10 times the average blank were flagged.

The three phthalate compounds were detected in the blank. The phthalate data are flagged as estimates and data usage should be limited to research evaluation.

PCBs:

Two method blanks were extracted and analyzed with each of the two batches of stormwater samples. The average blank for each batch of samples was less than the RL for all analytes except PCB018 for the storm 1 batch. Sample concentrations less than 10 times the average blank were flagged.

**LABORATORY
CONTROL
SAMPLE/BLANK
SPIKE RECOVERY:**

PAHs

Four blank spikes were extracted and analyzed with this batch of samples. Blank spike samples were within the QC criterion of 40-120% for all PAH compounds except the 2-methyl naphthalene (39%, 28%, 34%, and 35%) and one spike for benz[a]anthracene (121%). Two samples contained detectable concentrations of 2-methyl naphthalene. The data are flagged as estimates (E) due to the consistent low recovery.

Phthalates

Four blank spikes was extracted and analyzed with this batch of samples. Due to the variable method blanks a majority of the blank spikes for the phthalate compounds were outside the QC criterion. The data are all flagged as estimated and data usage should be limited to research evaluation.

PCBs:

Four blank spikes was extracted and analyzed with this batch of samples. Blank spike samples were within the project QC criterion of 40-120% for all PCB congeners except PCB018 (122%, 129%), PCB066 (126%, 123%), PCB101 (121%), PCB118 (127%), PCB153 (126%, 127%), PCB105 (136%, 126%), PCB138 (127%), PCB126 (139%, 134%, 122%), PCB187 (130%), PCB128 (125%), PCB200 (122%), and PCB180 (162%). All recoveries except one fall within the method criterion of 50-150% recovery.

**MATRIX SPIKE
RECOVERY:**

PAHs

Two sets of matrix spike (MS) and matrix spike duplicate (MSD) samples were extracted and analyzed with this batch of samples. The percent recoveries for the MS/MSD samples were within the project QC criterion of 40-120% for all PAH compounds except 2-methyl naphthalene (31%, 39%, and 38%) and one spike for dibenz[a,h]anthracene (22%).

QAI/QC NARRATIVE

MATRIX SPIKE RECOVERY conti.:

Phthalates

A majority of the matrix spike recoveries for the phthalate compounds were outside the QC criterion. The data are all flagged as estimated and data usage should be limited to research evaluation.

PCBs:

Two sets of matrix spike (MS) and matrix spike duplicate (MSD) samples were extracted and analyzed with this batch of samples. PCB congeners were within the project QC criterion of 40-120% with the exception of PCB008 (228%), PCB101 (174%), PCB066 (129%, 135%), PCB077 (30%), PCB153 (130%), PCB138 (35%), PCB187 (126%), PCB180 (171%), and PCB170 (33%, 35%). A majority of the recoveries fall with the method QC criterion of 50-150% recovery.

LABORATORY PRECISION:

Laboratory precision was expressed as the relative percent difference (RPD) between the matrix spike duplicates and the laboratory duplicates. The stormwater samples collected from the Sinclair Event locations contained notable amounts of particulate material. This made replication of the water samples extremely difficult and resulted in multiple precision failures. The failures are not attributed to laboratory practices, no corrective action was initiated.

PAHs and Phthalates:

The RPD values for the matrix spike duplicate were within the QC criterion of RPD $\leq 30\%$ for sample T1212. Several RPDs for sample T1202 were outside the QC criterion and are flagged. Several RPDs were outside the QC criterion for the phthalate compounds.

The RPD values for the laboratory duplicates were generally outside the QC criterion for the PAH and phthalate compounds due to large amounts of particulates in the stormwater.

PCBs:

Several RPD values for the matrix spike duplicate were outside the QC criterion. In all cases, the alternate MS/MSD was acceptable.

Several RPD values for the laboratory duplicates were outside the QC criterion.

SURROGATE RECOVERIES:

Surrogates compounds were used to evaluate the recovery of the extraction and clean-up process for the PAHs, phthalates, and PCB congeners.

PAHs and Phthalates:

The percent recoveries for the surrogate were all within the project QC criterion of 40-120% recovery.

PCBs:

The percent recoveries for the PCB surrogate were all within the project QC criterion of 40-120% recovery except blank spike A processed with storm 1 samples (122%). The alternate surrogate was within the QC criterion.

QAI/QC NARRATIVE

PROJECT: Sinclair and Dyes Inlet Storm Water Study – Storm Season 2005 Dyes Storms 1, 2, Makeup Event, and Wet Season Baseflow

PARAMETER: Organics – PAH, Phthalates and PCBs

LABORATORY: Battelle Marine Sciences Laboratory, Sequim, Washington

MATRIX: Storm Water (zero or negligible salinity)

SAMPLE CUSTODY AND PROCESSING: Battelle received storm water samples collected during the 2005 Dyes Inlet storm events. The events included storm 1, storm 2, storm 3 (Makeup Event BI-SBC), and Wet Season Baseflow. Samples from Dyes Storm 1 were received on 03/27/05. Samples from Dyes Storm 2 were received on 04/01/05. Samples from the Wet Season Baseflow sampling were received on 03/31/05. Samples for the BI-SBC Makeup Event were received on 04/11/05. All samples were received in good condition. Select samples from each event were composited at MSL by either flow proportioning or equal proportioning of discrete samples.

Samples were assigned a Battelle Central File (CF) identification number (2318) and were entered into Battelle's sample tracking system.

The following lists information on sample receipt and processing activities:

EVENT	Composite Collection Date	Laboratory Arrival Date	Extraction Date	PAH/ Phthalate Analysis Date	PCB Analysis Date
Dyes Storm 1	03/27/05	03/27/05	03/29/05	04/30/05, 05/01/05	05/02/05, 05/03/05
Dyes Storm 2	04/01/05	04/01/05	04/05/05	05/01/05	05/03/05
Wet Season Baseflow	03/31/05	03/31/05	04/05/05	05/01/05	05/03/05, 05/04/05
Makeup Event	04/11/05	04/11/05	04/13/05	05/01/05	05/03/05

QA/QC PROJECT DATA QUALITY OBJECTIVES:

Analyte	Analytical Method	Reporting Limits (ng/L)	MS Range of Recovery	Laboratory Control Sample	Surrogate Spike Recovery
PAH	GC-MS	20	40-120%	40-120%	40-120%
Phthalates	GC-MS	40	40-120%	40-120%	40-120%
PCB Congeners	GC-ECD	2	40-120%	40-120%	40-120%
Aroclor 1268	GC-ECD	40	40-120%	40-120%	40-120%

METHODS: All samples were extracted and analyzed in accordance with the following Battelle methods:

- o *MSL-O-010 Extraction and Cleanup of Water for Semivolatile Organics Following the Surrogate Internal Standard Method.*
- o *MSL-O-008 Operation and Maintenance of Gas Chromatographs (GC) and Gas Chromatograph/Mass Spectrometer (GC/MS) Systems.*
- o *MSL-O-015 Identification and Quantification of Polynuclear Aromatic Hydrocarbons by Gas Chromatography/Mass Spectrometry Following EPA Method 8270B Quality Control Criteria.*
- o *MSL-O-016 Analysis of PCBs and Chlorinated Pesticides by Gas Chromatography with Electron Capture Detection Following EPA METHOD 8080A Quality Control Criteria.*

Results are reported as not blank corrected in units of ng/L for each sample.

QAI/QC NARRATIVE

HOLDING TIMES:	Established holding times of 7 days from collection for the extraction procedure and 40 days from extraction for the analyses were achieved for all samples.
DETECTION LIMITS:	Detection limits were determined on a per sample basis and data are flagged (U) using sample specific MDLs. Reporting limits (RL) were established based on a low standard concentration and data are flagged (J) to identify concentrations less than the RL but greater than the MDL.
DATA QUALIFIERS:	U Not detected at or above MDL, sample specific MDL reported J Concentration less than RL but greater than MDL E Estimate & Spiked sample outside control limits of 40-120% recovery; precision <30% B Sample concentration is <10x blank * Associated Surrogate recovery exceeds control limit (flag applied to samples) # Surrogate recovery outside control limits (40-120% - flag applied to surrogate)
ANALYTICAL NOTE:	Sample T1308 Dyes Storm 2 BI-SBC was lost during the extraction processes due to broken glassware.
METHOD BLANK:	<i>PAHs and Phthalates:</i> Three method blanks were extracted and analyzed with the stormwater samples. The blank for each batch of samples was less than the RL for all PAH compounds. The three phthalate compounds were detected in the blank. The phthalate data are flagged as estimates and data usage should be limited to research evaluation. <i>PCBs:</i> Three method blanks were extracted and analyzed with the stormwater samples. The blank for each batch of samples was less than the RL for all PCBs.
LABORATORY CONTROL SAMPLE/BLANK SPIKE RECOVERY:	<i>PAHs</i> Five blank spikes were extracted and analyzed with this batch of samples. Blank spike samples were within the QC criterion of 40-120% for all PAH compounds except the 2-methyl naphthalene (37%), fluoranthene (121%), pyrene (496%), benz[a]anthracene (124%), benzo[b]fluoranthene (127%), benzo[k]fluoranthene (122%), benzo[a]pyrene (339%), indeno[1,2,3-c,d]pyrene (127%), and benzo[g,h,i]perylene (126%). The spikes for pyrene and benzo[a]pyrene were high due to a peak overlap on the chromatogram. The instrument was inspected for carry over problems. <i>Phthalates</i> Five blank spikes was extracted and analyzed with this batch of samples. Due to the variable method blanks a majority of the blank spikes for the phthalate compounds were outside the QC criterion. The data are all flagged as estimated and data usage should be limited to research evaluation. <i>PCBs:</i> Five blank spikes was extracted and analyzed with this batch of samples. Congeners with a percent recovery outside the project QC criterion of 40-120% were flagged. All PCB congeners for blank spike C recovered high and are attributed to a spiking error. All recoveries for the other four blank spikes, except one spike (PCB180 at 158%), meet the method QC criterion of 50-150% recovery.
MATRIX SPIKE RECOVERY:	<i>PAHs</i> Two sets of matrix spike (MS) and matrix spike duplicate (MSD) samples were extracted and analyzed with this batch of samples. The percent recoveries outside the project QC criterion of 40-120% were flagged. A majority of the percent recoveries meet the method QC criterion of 50-150% recovery.

QAI/QC NARRATIVE

MATRIX SPIKE RECOVERY conti.:

Phthalates

A majority of the matrix spike recoveries for the phthalate compounds were outside the QC criterion. The data are all flagged as estimated and data usage should be limited to research evaluation.

PCBs:

Two sets of matrix spike (MS) and matrix spike duplicate (MSD) samples were extracted and analyzed with this batch of samples. PCB congeners outside the project QC criterion of 40-120% were flagged. A majority of the recoveries fall within the method QC criterion of 50-150% recovery.

LABORATORY PRECISION:

Laboratory precision was expressed as the relative percent difference (RPD) between the matrix spike duplicates and the laboratory duplicates.

PAHs and Phthalates:

The RPD values for the matrix spike duplicate were within the QC criterion of RPD $\leq 30\%$ for all PAH and phthalate compounds. The RPD values for the laboratory duplicates were within the QC criterion for all PAH compounds. Several phthalate compounds were outside the QC criterion and are flagged.

PCBs:

The RPD values for the matrix spike duplicate were within the QC criterion of RPD $\leq 30\%$ for all PCB congeners except PCB180 (68%). PCB congeners for the laboratory duplicate were not detected above the RL.

SURROGATE RECOVERIES:

Surrogates compounds were used to evaluate the recovery of the extraction and clean-up process for the PAHs, phthalates, and PCB congeners.

PAHs and Phthalates:

The percent recoveries for the surrogate were within the project QC criterion of 40-120% recovery with the exception of one surrogate for Storm 1 blank spike B (122%) and two surrogates for Storm 2 blank spike A (126% and 129%). The alternate surrogates were within the QC criterion.

PCBs:

The percent recoveries for the PCB surrogate were all within the project QC criterion of 40-120% recovery except sample T1322 for PCB103 (38%). The alternate surrogate was within the QC criterion.

Sample Custody Records: 2005 Storm Water Organic Contaminants

- Chain of Custody
- Login Checksheets
- Battelle Sample Login

COC Number: _____

Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382

2005 Storm Water Data Report

SAMPLE CHAIN OF CUSTODY FORM

Date: 1/18/05
 Page: 1 of 8
 COC Number: _____

Garst Storm #1

Battelle

Marine Sciences Laboratory
 1529 West Sequim Bay Road
 Sequim, Washington 98382

Project No.: 43043				AS PER TABLE 2-1 IN QAPP																		Laboratory: Battelle MSL				
Project Name: TMDL in Sinclair & Dyes Inlets																						Address: 1529 W. Sequim Bay Road Sequim, WA 98382				
Project Manager: Martin C. Miller																						Attention: Jill Brandenberger				
Phone: (360) 681-3668				Testing Parameters																		Observations, Instructions				
2318	Lab. Use only: Lab ID	Sample ID	Collection Date/Time	Matrix	Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISS	Nitrate+Nitrite	Total Phosphorus	TKN	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics	PEST	No. of containers	StationID	Storm#	Jar#	%Full	
		T1100-A	1/17/05 0054	W																		LMK136	2005 Jan 17	1	100	
		T1100-B	1/17/05 0354	W																		LMK136	2005 Jan 17	2	100	
		T1100-C	1/17/05 0654	W																		LMK136		3	20	
		T1100-D	1/17/05 0954	W																		LMK136		4	60	
		T1100-E	1/17/05 1203	W																		LMK136		5	100	
		T1100-F	1/17/05 1503	W																		LMK136		6	100	
		T1100-G	1/17/05 1803	W																		LMK136		7	100	
		T1100-H	1/17/05 2103	W																		LMK136		8	100	
		T1100-I	1/18/05 0003	W																		LMK136		9	100	
		T1100-J	1/18/05 0303	W																		LMK136		10	100 ~~85~~	
		T1100-K	1/18/05 0603	W																		LMK136		11	85	
TIME	DATE	Composite																								
4	32	T1100	1/18/05 1000		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
60		ORG																								
Relinquished by: <i>JM</i> <u>1/18/05</u> <u>1645</u>					Received by: <i>JM Brandenberger</i> <u>1/18/05</u> <u>1645</u>																		Total # of Containers			
Signature: <i>JDE</i> Date: _____ Time: _____					Signature: <i>JM Brandenberger</i> Date: _____ Time: _____																		Shipment Method:			
Printed Name: _____ Company: _____					Printed Name: _____ Company: _____																		Special Requirements or Conditions:			
Relinquished by:					Received by:																		Sample Disposition:			
Signature: _____ Date: _____ Time: _____					Signature: _____ Date: _____ Time: _____																		Distribution:			
Printed Name: _____ Company: _____					Printed Name: _____ Company: _____																		1) 2 copies to the Laboratory 2) 1 copy to project manager 3) Return completed original to Battelle Marine Sciences Laboratory			

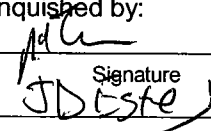
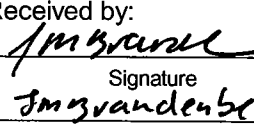
SAMPLE CHAIN OF CUSTODY FORM

Date: 1/18/05
 Page: 2 of 8
 COC Number: _____

Grout Storm #1

Battelle

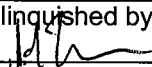
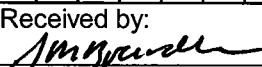
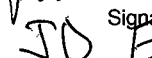
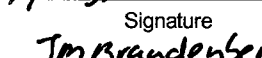
Marine Sciences Laboratory
 1529 West Sequim Bay Road
 Sequim, Washington 98382

Project No.: 43043 Project Name: TMDL in Sinclair & Dyes Inlets Project Manager: Martin C. Miller Phone: (360) 681-3668				AS PER TABLE 2-1 IN QAPP														Laboratory: Battelle MSL Address: 1529 W. Sequim Bay Road Sequim, WA 98382 Attention: Jill Brandenberger						
				Testing Parameters														Observations, Instructions						
Lab. Use only: Lab ID	Sample ID	Collection Date/Time	Matrix	Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISST	Nitrate+Nitrite	Total Phosphorus	TKN	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics	No. of containers	StationID	Storm#	Jar#	%Full	
	T1101-A	1/16/05 2354	W																	GC	2005 Jan 17	1	100	
	T1101-B	1/17/05 0554	W																	GC		2	50	
	T1101-C	1/17/05 1154	W																	GC		3	75	
	T1101-D	1/17/05 1754	W																	GC		4	100	
	T1101-E	1/17/05 2354	W																	GC		5	100	
	T1101-F	1/18/05 0554	W																	GC		6	85	
	T1101-G		W																	GC		7		
	T1101-H		W																	GC		8		
	T1101-I		W																	GC		9		
	T1101-J		W																	GC		10		
	T1101-K		W																	GC		11		
TIME	ONE Composite:																							
5	33 T1101	1/18/05 2230		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1					
Relinquished by:				Received by:														Total # of Containers						
 Signature Date Time J. D. Este 1/18/05 1645 Printed Name Company				 Signature Date Time J. Brandenberger 1/18/05 1645 Printed Name Company														Shipment Method: Special Requirements or Conditions:						
Relinquished by:				Received by:														Sample Disposition:						
Signature Date Time _____ Printed Name Company				Signature Date Time _____ Printed Name Company														Distribution: 1) 2 copies to the Laboratory 2) 1 copy to project manager 3) Return completed original to Battelle Marine Sciences Laboratory						

Date: 1/18/05
Page: 3 of 8
COC Number: _____

Worst Storm #1

Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382

Project No.: 43043				AS PER TABLE 2-1 IN QAPP														Laboratory: Battelle MSL						
Project Name: TMDL in Sinclair & Dyes Inlets																		Address: 1529 W. Sequim Bay Road Sequim, WA 98382						
Project Manager: Martin C. Miller																		Attention: Jill Brandenberger						
Phone: (360) 681-3668				Testing Parameters														Observations, Instructions						
Lab. Use only: Lab ID	Sample ID	Collection Date/Time	Matrix	Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISST	Nitrate+Nitrite	Total Phosphorus	TKN	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics	PEST	No. of containers	StationID	Storm#	Jar#	%Full
	T1102-A	1/17/05 0001	W																		GCL	2005 Jan 17	1	100-95
	T1102-B	1/17/05 0601	W																		GCL		2	100
	T1102-C	1/17/05 1201	W																		GCL		3	100
	T1102-D	1/17/05 1801	W																		GCL		4	100
	T1102-E	1/18/05 0001	W																		GCL		5	100
	T1102-F	1/18/05 0601	W																		GCL		6	90
TIME/DME Composite																								
6/34	T1102	1/19/05 0940		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
62	Organics																							
Relinquished by:  1/18/05 1645				Received by:  1/18/05 1645														Total # of Containers						
Signature:  Date: 1/18/05 Time: 1645				Signature:  Date: 1/18/05 Time: 1645														Shipment Method:						
Printed Name: JD Estes Company: TEC				Printed Name: Jim Brandenberger Company: Battelle														Special Requirements or Conditions:						
Relinquished by:				Received by:														Sample Disposition:						
Signature: _____ Date: _____ Time: _____				Signature: _____ Date: _____ Time: _____														Distribution:						
Printed Name: _____ Company: _____				Printed Name: _____ Company: _____														1) 2 copies to the Laboratory						
																		2) 1 copy to project manager						
																		3) Return completed original to Battelle Marine Sciences Laboratory						

SAMPLE CHAIN OF CUSTODY FORM

Date: 1/18/05
 Page: 4 of 8
 COC Number: _____

Worst storm #1

Battelle

Marine Sciences Laboratory
 1529 West Sequim Bay Road
 Sequim, Washington 98382

Project No.: 43043				AS PER TABLE 2-1 IN QAPP																		Laboratory: Battelle MSL			
Project Name: TMDL in Sinclair & Dyes Inlets																						Address: 1529 W. Sequim Bay Road Sequim, WA 98382			
Project Manager: Martin C. Miller																						Attention: Jill Brandenberger			
Phone: (360) 681-3668				Testing Parameters																		Observations, Instructions			
Lab. Use only: Lab ID	Sample ID	Collection Date/Time	Matrix	Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISST	Nitrate+Nitrite	Total Phosphorus	TKN	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics	Pest	No. of containers	StationID	Storm#	Jar#	%Full	
	T1103-A	1/17/05 0021	W																		AC	2005 Jan 17	1	100	
	T1103-B	1/17/05 0621	W																		AC		2	100	
	T1103-C *	1/17/05 1221	W																		AC		3	100	
	T1103-D *	1/17/05 1821	W																		AC		4	100	
	T1103-E	1/18/05 0021	W																		AC		5	100	
	T1103-F	1/18/05 0621	W																		AC		6	90	
	~~T1103~~																								
Time	One Composite																								
7	35 T1103	1/19/05 0600		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	AC				
63	Organics																								
Relinquished by: <i>[Signature]</i> <u>1/18/05</u> <u>1645</u>				Received by: <i>[Signature]</i> <u>1/18/05</u> <u>1645</u>																		Total # of Containers			
Signature: <i>[Signature]</i> Date: _____ Time: _____				Signature: <i>[Signature]</i> Date: _____ Time: _____																		Shipment Method:			
Printed Name: <u>JD Ester</u> Company: _____				Printed Name: <u>J Brandenberger</u> Company: <u>Battelle</u>																		Special Requirements or Conditions:			
Relinquished by:				Received by:																		Sample Disposition:			
Signature: _____ Date: _____ Time: _____				Signature: _____ Date: _____ Time: _____																		Distribution:			
Printed Name: _____ Company: _____				Printed Name: _____ Company: _____																		1) 2 copies to the Laboratory			
																						2) 1 copy to project manager			
																						3) Return completed original to			
																						Battelle Marine Sciences Laboratory			

SAMPLE CHAIN OF CUSTODY FORM

Date: 1/18/05
 Page: 5 of 8
 COC Number: _____

Gorst Storm #1

Battelle

Marine Sciences Laboratory
 1529 West Sequim Bay Road
 Sequim, Washington 98382

Project No.: 43043				AS PER TABLE 2-1 IN QAPP														Laboratory: Battelle MSL					
Project Name: TMDL in Sinclair & Dyes Inlets																		Address: 1529 W. Sequim Bay Road Sequim, WA 98382					
Project Manager: Martin C. Miller																		Attention: Jill Brandenberger					
Phone: (360) 681-3668				Testing Parameters														Observations, Instructions					
Lab. Use only: Lab ID	Sample ID	Collection Date/Time	Matrix	Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISST	Nitrate+Nitrite	Total Phosphorus	TKN	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics	No. of containers	StationID	Storm#	Jar#	%Full
	T1104-A	1/16/05 2357	W																	LMK122	2005 Jan 17	1	100
	T1104-B	1/17/05 0257	W																	LMK122		2	100
	T1104-C	1/17/05 0557	W																	LMK122		3	100
	T1104-D	1/17/05 0857	W																	LMK122		4	100
	T1104-E	1/17/05 1157	W																	LMK122		5	100
	T1104-F	1/17/05 1457	W																	LMK122		6	100
	T1104-G	1/17/05 1757	W																	LMK122		7	100
	T1104-H	1/17/05 2057	W																	LMK122		8	100
	T1104-I	1/17/05 2357	W																	LMK122		9	100
	T1104-J	1/18/05 0257	W																	LMK122		10	100
	T1104-K	1/18/05 0557	W																	LMK122		11	100
TMC/pne #8 #36 ORG #64	Composite T1104	1/19/05 1430	W	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Relinquished by: <u>[Signature]</u> <u>1/18/05</u> <u>1645</u> Signature Date Time J D ESTEY TEC Company				Received by: <u>[Signature]</u> <u>1/18/05</u> <u>1645</u> Signature Date Time Jm Brandenberger Battelle Printed Name Company														Total # of Containers					
Relinquished by: _____ Signature Date Time Printed Name Company				Received by: _____ Signature Date Time Printed Name Company														Shipment Method: Special Requirements or Conditions:					
																		Sample Disposition:					
																		Distribution:					
																		1) 2 copies to the Laboratory					
																		2) 1 copy to project manager					
																		3) Return completed original to Battelle Marine Sciences Laboratory					

SAMPLE CHAIN OF CUSTODY FORM

Date: 1/18/05
 Page: 6 of 8
 COC Number: _____

Gorst Storm #1

Battelle

Marine Sciences Laboratory
 1529 West Sequim Bay Road
 Sequim, Washington 98382

Project No.: 43043				AS PER TABLE 2-1 IN QAPP														Laboratory: Battelle MSL						
Project Name: TMDL in Sinclair & Dyes Inlets																		Address: 1529 W. Sequim Bay Road Sequim, WA 98382						
Project Manager: Martin C. Miller																		Attention: Jill Brandenberger						
Phone: (360) 681-3668				Testing Parameters														Observations, Instructions						
Lab. Use only: Lab ID	Sample ID	Collection Date/Time	Matrix	Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISST	Nitrate+Nitrite	Total Phosphorus	TKN	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics	PETCIPES	No. of containers	StationID	Storm#	Jar#	%Full
	T1105-A	1/17/05 0213	W																		LMK038	2005 Jan 17	1	100
	T1105-B	1/17/05 0513	W																		LMK038		2	100
	T1105-C	1/17/05 0813	W																		LMK038		3	100
	T1105-D	1/17/05 1113	W																		LMK038		4	100
	T1105-E	1/17/05 1413	W																		LMK038		5	100
	T1105-F	1/17/05 1713	W																		LMK038		6	100
	T1105-G	1/17/05 2013	W																		LMK038		7	100
	T1105-H	1/17/05 2313	W																		LMK038		8	100
	T1105-I	1/18/05 0213	W																		LMK038		9	100
	T1105-J	1/18/05 0513	W																		LMK038		10	100
TRUE/DNE #9/#37	Composite	1/19/05 12:30	W	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
ORG #65																								
Relinquished by: <u>[Signature]</u> <u>1/18/05</u> <u>1645</u>				Received by: <u>[Signature]</u> <u>1/18/05</u> <u>1645</u>														Total # of Containers						
Signature: <u>JD Este</u> Date: _____ Time: _____ Printed Name: _____ Company: _____				Signature: <u>JM Brandenberger</u> Date: _____ Time: _____ Printed Name: _____ Company: <u>Battelle</u>														Shipment Method:						
																		Special Requirements or Conditions:						
Relinquished by:				Received by:														Sample Disposition:						
Signature: _____ Date: _____ Time: _____				Signature: _____ Date: _____ Time: _____														Distribution:						
Printed Name: _____ Company: _____				Printed Name: _____ Company: _____														1) 2 copies to the Laboratory 2) 1 copy to project manager 3) Return completed original to Battelle Marine Sciences Laboratory						

SAMPLE CHAIN OF CUSTODY FORM

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Gorst Storm #1

Battelle

Marine Sciences Laboratory
 1529 West Sequim Bay Road
 Sequim, Washington 98382

Project No.: 43043				AS PER TABLE 2-1 IN QAPP														Laboratory: Battelle MSL						
Project Name: TMDL in Sinclair & Dyes Inlets																		Address: 1529 W. Sequim Bay Road Sequim, WA 98382						
Project Manager: Martin C. Miller																		Attention: Jill Brandenberger						
Phone: (360) 681-3668				Testing Parameters														Observations, Instructions						
Lab. Use only: Lab ID	Sample ID	Collection Date/Time	Matrix	Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISST	Nitrate+Nitrite	Total Phosphorus	TKN	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics	<i>Residue</i>	No. of containers	StationID	Storm#	Jar#	%Full
	T1106-A	1/17/05 0047W																			PO-POBLVD	2005 Jan 17	1	100
	T1106-B	1/17/05 0347W																			PO-POBLVD		2	100
	T1106-C	1/17/05 0647W																			PO-POBLVD		3	100
	T1106-D	1/17/05 0947W																			PO-POBLVD		4	100
	T1106-E	1/17/05 1247W																			PO-POBLVD		5	100
	T1106-F	1/17/05 1547W																			PO-POBLVD		6	100
	T1106-G	1/17/05 1847W																			PO-POBLVD		7	100
	T1106-H	1/17/05 2147W																			PO-POBLVD		8	100
	T1106-I	1/18/05 0047W																			PO-POBLVD		9	100
	T1106-J	1/18/05 0347W																			PO-POBLVD		10	100
	T1106-K	1/18/05 0647W																			PO-POBLVD		11	90
TIME/DATE #10/38	ORG #160 Composite	1/19/05 12:30		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
Relinquished by: <u>[Signature]</u> <u>1/18/05</u> <u>1645</u> Signature Date Time J D Estes Printed Name Company				Received by: <u>[Signature]</u> <u>1/18/05</u> <u>1645</u> Signature Date Time J M Brandenberger Battelle Printed Name Company														Total # of Containers						
Relinquished by: _____ Signature Date Time Printed Name Company				Received by: _____ Signature Date Time Printed Name Company														Shipment Method:						
																		Special Requirements or Conditions:						
																		Sample Disposition:						
																		Distribution:						
																		1) 2 copies to the Laboratory						
																		2) 1 copy to project manager						
																		3) Return completed original to Battelle Marine Sciences Laboratory						

Worst storm #1

Battelle
Marine Sciences Laboratory
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Sequim, Washington 98382

Observations, Instructions

Sample Disposition:	
Distribution:	
1) 2 copies to the Laboratory	
2) 1 copy to project manager	
3) Return completed original to Battelle Marine Sciences Laboratory	

Date: 1/18/05
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Worst Storm #1

Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382

Project No.: 43043							AS PER TABLE 2-1 IN QAPP								Laboratory: Battelle MSL Address: 1529 W. Sequim Bay Road Sequim, WA 98382															
Project Name: TMDL in Sinclair & Dyes Inlets															Attention: Jill Brandenberger															
Project Manager: Martin C. Miller																														
Phone: (360) 681-3668							Testing Parameters								Observations, Instructions															
Lab ID		Sample ID		Collection Date/Time		Matrix	Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISSST	Nitrate+Nitrite	Total Phosphorus	TKN	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics	No. of containers	StationID		Storm#		Grab#		%Full	
#14 #P2	G1103-A	1/17/05 0145		W			X	X								X	X	X	X					AC-LOW	2005 Jan 17	Turbid 1	100			
#15 #V3	G1103-B	1/17/05 1130		W			X	X								X	X	X	X					AC-LOW	↓	Less H ₂ O 2	100			
#16 #V4	G1103-C	1/17/05 2100		W			X	X								X	X	X	X					AC-LOW	↓	Less H ₂ O 3	100			
CF																														
Relinquished by:							Received by:															Total # of Containers								
Signature _____ Date _____ Time _____							Signature _____ Date _____ Time _____															Shipment Method:								
Printed Name _____ Company _____							Printed Name _____ Company _____															Special Requirements or Conditions:								
Relinquished by:							Received by:															Sample Disposition:								
Signature _____ Date _____ Time _____							Signature _____ Date _____ Time _____															Distribution:								
Printed Name _____ Company _____							Printed Name _____ Company _____															1) 2 copies to the Laboratory								
																						2) 1 copy to project manager								
																						3) Return completed original to								
																						Battelle Marine Sciences Laboratory								

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Battelle

Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382

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Battelle

Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382

Project No.: 43043			AS PER TABLE 2-1 IN QAPP													Laboratory: Battelle MSL									
Project Name: TMDL in Sinclair & Dyes Inlets																Address: 1529 W. Sequim Bay Road Sequim, WA 98382									
Project Manager: Martin C. Miller																Attention: Jill Brandenberger									
Phone: (360) 681-3668			Testing Parameters													Observations, Instructions									
CE# 2318 TME/DME Lab. Use only: Lab ID	Sample ID	Collection Date/Time	Matrix	Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISST	Nitrate+Nitrite	Total Phosphorus	TKN	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics	No. of containers	StationID	Storm#	Grab#	%Full		
170105	G1105-A	1/17/05 0155	W			X	X							X	X	X	X				WADOT-01A	2005 Jan 17	TURB #1	100	
171105	G1105-B	1/17/05 1105	W			X	X							X	X	X	X				WADOT-01A		TURB #1	2	100
172105	G1105-C	1/17/05 2110	W			X	X							X	X	X	X				WADOT-01A		TURB #3	100	
172105	G1105-B-Dup	1/17/05 1107	W			X	X							X	X	X	X				WADOT-01A	2005 Jan 17	2-Dup	100	

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Grout Storm #1

Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382

[illegible]

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1529 West Sequim Bay Road
Sequim, Washington 98382

[illegible]

SAMPLE CHAIN OF CUSTODY FORM

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Gorst Storm #1

Battelle

Marine Sciences Laboratory
 1529 West Sequim Bay Road
 Sequim, Washington 98382

Project No.: 43043				As Per Table 2-1 in QAPP														Laboratory: Battelle MSL							
Project Name: TMDL in Sinclair & Dyes Inlets																		Address: 1529 W. Sequim Bay Road Sequim, WA 98382							
Project Manager: Martin C. Miller																		Attention: Jill Brandenberger							
Phone: (360) 681-3668				Testing Parameters														Observations, Instructions							
Lab. Use only: Lab ID	Sample ID	Collection Date/Time	Matrix	Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISST	Nitrate+Nitrite	Total Phosphorus	TKN	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics	Pesticides	No. of containers	StationID	Storm#	Grab#	% Full	
2318	T1114-A	1/17/05 0022	W																		AC-DUP	2005Jan17	1	100	
	T1114-B	1/17/05 0622	W																		AC-DUP		2	100	
	T1114-C	1/17/05 1222	W																		AC-DUP		3	100	
	T1114-D	1/17/05 1822	W																		AC-DUP		4	100	
	T1114-E	1/18/05 0022	W																		AC-DUP		5	100	
	T1114-F	1/18/05 0622	W																		AC-DUP		6	90	
THE ONE	Composite																								
6970	T1114	1/19/05 0600		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		AC-DUP			
ORG																									
#71																									
Relinquished by: <u>[Signature]</u> <u>1/18/05</u> <u>1645</u> Signature Date Time <u>JD [Signature]</u> <u>TEC</u> Printed Name Company				Received by: <u>[Signature]</u> <u>1/18/05</u> <u>1645</u> Signature Date Time <u>Jm Brandenberger</u> <u>Battelle</u> Printed Name Company														Total # of Containers Shipment Method: Special Requirements or Conditions:							
Relinquished by: Signature Date Time Printed Name Company				Received by: Signature Date Time Printed Name Company														Sample Disposition: Distribution: 1) 2 copies to the Laboratory 2) 1 copy to project manager 3) Return completed original to Battelle Marine Sciences Laboratory							

Date: 1/23/05
Page: 1 of 8
COC Number:

**Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382**

[illegible]

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**Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382**

[illegible]

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**Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382**

[illegible]

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1529 West Sequim Bay Road
Sequim, Washington 98382**

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1529 West Sequim Bay Road
Sequim, Washington 98382

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**Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382**

[illegible]

Date: 1/23/05
Page: 8 of 8
COC Number:

**Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382**

Project No.: 43043				Storm #2 as per Table 2-1 in QAPP														Laboratory: Battelle MSL									
Project Name: TMDL in Sinclair & Dyes Inlets																		Address: 1529 W. Sequim Bay Road Sequim, WA 98382									
Project Manager: Martin C. Miller																		Attention: Jill Brandenberger									
Phone: (360) 681-3668				Testing Parameters														Observations, Instructions									
MSL 231S* TME DME Lab. Use only: Lab ID		Sample ID		Collection Date/Time		Matrix		Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISST	Nitrate+Nitrite	Total Phosphorus	TKN	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics	No. of containers	StationID	Storm#	Jar#	% Full
78	106	T1115-A	1/22/05 0538	W	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		AC-DUP	2005 Jan 22	1	100
		T1115-B	1/22/05 1138	W																				AC-DUP	2005 Jan 22	2	100
		T1115-C	1/22/05 1738	W																				AC-DUP	2005 Jan 22	3	100

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**Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382**

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Date: 1/23/05
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**Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382**

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Date: 1/23/05
Page: 2 of MS
COC Number: _____

**Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382**

Project No.: 43043				Storm #2 as per Table 2-1 in QAPP												Laboratory: Battelle MSL											
Project Name: TMDL in Sinclair & Dyes Inlets																Address: 1529 W. Sequim Bay Road Sequim, WA 98382											
Project Manager: Martin C. Miller																Attention: Jill Brandenberger											
Phone: (360) 681-3668				Testing Parameters												Observations, Instructions											
MSL 2385 TME DME Lab. Use only: Lab ID		Sample ID		Collection Date/Time		Matrix		Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISST	Nitrate+Nitrite	Total Phosphorus	TKN	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics	No. of containers	Station ID	Storm#	Grab#	% Full
84	112	G1113-A		1/22/05	1035	W				X	X						X	X	X	X				GC-M	2005jan22	1	100
85	113	G1113-B		1/22/05	1745	W				X	X						X	X	X	X				GC-M	2005jan22	2	100
86	114	G1113-C		1/22/05	2205	W				X	X						X	X	X	X				GC-M	2005jan22	3	100
1m/11/21/05																											
Relinquished by:				Signature: <u>Brian Rupert</u> Date: <u>1/23/05</u> Time: <u>1130</u>				Received by:				Signature: <u>LO Rouse</u> Date: <u>1/23/05</u> Time: <u>1130</u>				Total # of Containers											
Printed Name: <u>Brian Rupert</u> Company: <u>TEC</u>				Signature: <u>LO Rouse</u> Date: <u>1/23/05</u> Time: <u>1130</u>				Printed Name: <u>LO Rouse</u> Company: <u>Battelle MSL</u>				Shipment Method:															
Relinquished by:				Signature: _____ Date: _____ Time: _____				Received by:				Signature: _____ Date: _____ Time: _____				Special Requirements or Conditions:											
Printed Name: _____ Company: _____				Signature: _____ Date: _____ Time: _____				Printed Name: _____ Company: _____				Sample Disposition:															
Relinquished by:				Signature: _____ Date: _____ Time: _____				Received by:				Signature: _____ Date: _____ Time: _____				Distribution:											
Printed Name: _____ Company: _____				Signature: _____ Date: _____ Time: _____				Printed Name: _____ Company: _____				1) 2 copies to the Laboratory															
												2) 1 copy to project manager															
												3) Return completed original to															
												Battelle Marine Sciences Laboratory															

SAMPLE CHAIN OF CUSTODY FORM

Date: 1/23/05
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 COC Number: _____

Battelle

Marine Sciences Laboratory
 1529 West Sequim Bay Road
 Sequim, Washington 98382

Project No.: 43043 Project Name: TMDL in Sinclair & Dyes Inlets Project Manager: Martin C. Miller Phone: (360) 681-3668				Storm #2 as per Table 2-1 in QAPP												Laboratory: Battelle MSL Address: 1529 W. Sequim Bay Road Sequim, WA 98382 Attention: Jill Brandenberger										
				Testing Parameters												Observations, Instructions										
MSL 2318*	TME DME	Lab. Use only: Lab ID	Sample ID	Collection Date/Time	Matrix	Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISST	Nitrate+Nitrite	Total Phosphorus	TKN	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics	No. of containers	StationID	Storm#	Grab#	% Full	
87	115		G1114-A	1/22/05 0733	W			X	X						X	X	X	X					WADOT-01A	2005jan202	1	100
88	116		G1114-B	1/22/05 1750	W			X	X						X	X	X	X					WADOT-01A	2005jan202	2	100
89	117		G1114-C	1/22/05 2220	W			X	X						X	X	X	X					WADOT-01A	2005jan202	3	100

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COC Number:

**Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382**

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Date: 1/23/05
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Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382

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Jan 20 05 12:33a

Battelle
Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382

Laboratory: Battelle MSL
Address: 1529 W. Sequim Bay Road
Sequim, WA 98382
Attention: Jill Brandenberger

2005 Storm Water Data Report

COC Number:

CHAIN OF CUSTODY FORM

Page: 1 of 9

Project No.: 43043

Project Name: TMDL in Sinclair & Dyes Inlets

Date:

Sample Team: Whitney, Walpole, Beckwith (PSNS)

Laboratory: Battelle MSL

Address: 1529 W. Sequim Bay Road

Observations, Instructions

Analyze parameters per Table 2-1 in ENVVEST QAPP

Lab. Use only: Lab ID	Sample ID	Collection Date/Time	Matrix	Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISST	Nitrate+Nitrite	Total Phosphorus	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics	NUTRIENTS	Hg	OSAL (ocean Salinity)	No. of Battelle containers	StationID	Storm#	Jar#	% Full
132/133	M4100	2/9/2005 07430 AM	H2O									x	x	x							1	P3	2005ENV01		95
	M4100SAL	2/9/2005 0743 AM	H2O																x		1	P3	2005ENV01		95
134/135	M4101	2/9/2005 0805 AM	H2O									x	x	x							1	P2	2005ENV01		95
	M4101SAL	2/9/2005 0805 AM	H2O																x		1	P2	2005ENV01		95
136/137	M4102	2/9/2005 0805 AM	H2O									x	x	x							1	P2 DUP	2005ENV01		95
	M4102SAL	2/9/05 1313 PM	H2O																x		1	P2 DUP	2005ENV01		95
138/139	M4103	2/9/2005 0841 AM	H2O									x	x	x							1	P1	2005ENV01		95
	M4103SAL	2/9/2005 0841 AM	H2O																x		1	P1	2005ENV01		95
140/141	M4104	2/9/2005 0930 AM	H2O									x	x	x							1	M4	2005ENV01		95
	M4104NUTSHG	2/9/2005 0930 AM	H2O														x	x			1	M4	2005ENV01		95
	M4104SAL	2/9/2005 0930 AM	H2O																x		1	M4	2005ENV01		95
142/143	M4105	2/9/2005 0951 AM	H2O									x	x	x							1	M3.3	2005ENV01		95
	M4105SAL	2/9/2005 0951 AM	H2O																x		1	M3.3	2005ENV01		95
144/145	M4106	2/9/2005 1015 AM	H2O									x	x	x							1	SN12	2005ENV01		95
	M4106SAL	2/9/2005 1015 AM	H2O																x		1	SN12	2005ENV01		95
146/147	M4107	2/9/2005 1030 AM	H2O									x	x	x							1	BJ-EST	2005ENV01		95
	M4107SAL	2/9/2005 1030 AM	H2O																x		1	BJ-EST	2005ENV01		95
148/149	M4108	2/9/2005 1054 AM	H2O									x	x	x							1	M3.1	2005ENV01		95
	M4108NUTSHG	2/9/2005 1054 AM	H2O														x	x			1	M3.1	2005ENV01		95
	M4108SAL	2/9/2005 1054 AM	H2O																x		1	M3.1	2005ENV01		95
150/151	M4109	2/9/2005 1201 PM	H2O									x	x	x			x	x			1	M6	2005ENV01		95
	M4109NUTSHG	2/9/2005 1201 PM	H2O														x	x			1	M6	2005ENV01		95
	M4109SAL	2/9/2005 1201 PM	H2O																x		1	M6	2005ENV01		95
152/153	M4110	2/9/2005 1110 AM	H2O									x	x	x							1	DY01	2005ENV01		95
	M4110SAL	2/9/2005 1110 AM	H2O																x		1	DY01	2005ENV01		95
154/155	M4112	2/9/2005 0914 AM	H2O									x	x	x							1	PL01	2005ENV01		95
	M4112SAL	2/9/2005 0914 AM	H2O																x		1	PL01	2005ENV01		95
156/157	M4113	2/9/2005 1045 AM	H2O									x	x	x							1	PL02	2005ENV01		95
	M4113SAL	2/9/2005 1045 AM	H2O																x		1	PL02	2005ENV01		95
158/159	M4114	2/9/2005 1225 PM	H2O									x	x	x							1	PL03	2005ENV01		95
	M4114SAL	2/9/2005 1225 PM	H2O																x		1	PL03	2005ENV01		95

Relinquished by: <i>Brooks H. Walpole</i> Signature Date: 2-9-05 Time: 1610	Received by: <i>Jim Brindley</i> Signature Date: 2/9/05 Time: 1610	Total # of Containers: 30
Printed Name: Brooks H. Walpole Company: PSNS	Printed Name: Jim Brindley Company: Battelle	Shipment Method:
		Special Requirements or Conditions:
Relinquished by:	Received by:	Sample Disposition:
Signature: _____ Date: _____ Time: _____	Signature: _____ Date: _____ Time: _____	Distribution:
Printed Name: _____ Company: _____	Printed Name: _____ Company: _____	1) 2 copies to the Laboratory
		2) 1 copy to project manager
		3) Return completed original to Battelle Marine Sciences Laboratory

COC Number:

CHAIN OF CUSTODY FORM

Page: 1 of 9

Project No.: 43043

Project Name: TMDL in Sinclair & Dyes Inlets

Date:

Sample Team: Whitney, Walpole, Beckwith (PSNS)

Analyze parameters per Table 2-1 in ENVVEST QAPP

Laboratory: Battelle MSL

Address: 1529 W. Sequim Bay Road

Observations, Instructions

Lab. Use only	Sample ID	Collection Date/Time	Matrix	Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISST	Nitrate+Nitrite	Total Phosphorus	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics	NUTRIENTS	Hg	OSAL (ocean Salinity)	No. of Battelle containers	StationID	Storm#	Jar#	% Full
	M4100-TS	2/9/2005 1301 PM	H2O			x	x														1	P3	2005ENV01		95
	M4101-TS	2/9/2005 1313 PM	H2O			x	x														1	P2	2005ENV01		95
	M4102-TS	2/9/05 1313 PM	H2O			x	x															P2 DUP	2005ENV01		95
	M4103-TS	2/9/2005 0841 AM	H2O			x	x														1	P1	2005ENV01		95
	M4104-TS	2/9/2005 0930 AM	H2O			x	x														1	M4	2005ENV01		95
	M4105-TS	2/9/2005 0951 AM	H2O			x	x														1	M3.3	2005ENV01		95
	M4106-TS	2/9/2005 1015 AM	H2O			x	x														1	SN12	2005ENV01		95
	M4107-TS	2/9/2005 1030 AM	H2O			x	x														1	BJ-EST	2005ENV01		95
	M4108-TS	2/9/2005 1054 AM	H2O			x	x														1	M3.1	2005ENV01		95
	M4109-TS	2/9/2005 1201 PM	H2O			x	x														1	M6	2005ENV01		95
	M4110-TS	2/9/2005 1110 AM	H2O			x	x														1	DY01	2005ENV01		95
	M4112-TS	2/9/2005 0914 AM	H2O			x	x														1	PL01	2005ENV01		95
	M4113-TS	2/9/2005 1045 AM	H2O			x	x														1	PL02	2005ENV01		95
	M4114-TS	2/9/2005 1225 PM	H2O			x	x														1	PL03	2005ENV01		95

Relinquished by:	Received by:	Total # of Containers
Signature: <i>[Signature]</i> Date: <i>2/9/05</i> Time: <i>1610</i>	Signature: <i>[Signature]</i> Date: <i>2/9/05</i> Time: <i>1610</i>	14
Printed Name: <i>Beckwith, H. Walpole</i> Company: <i>PSNS</i>	Printed Name: <i>Im Brandenburg</i> Company: <i>Battelle</i>	Shipment Method:
		Special Requirements or Conditions:
Relinquished by:	Received by:	Sample Disposition:
Signature: _____ Date: _____ Time: _____	Signature: _____ Date: _____ Time: _____	Distribution:
Printed Name: _____ Company: _____	Printed Name: _____ Company: _____	1) 2 copies to the Laboratory
		2) 1 copy to project manager
		3) Return completed original to Battelle Marine Sciences Laboratory

SAMPLE CHAIN OF CUSTODY FORM

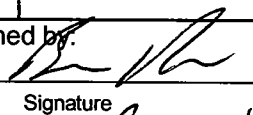
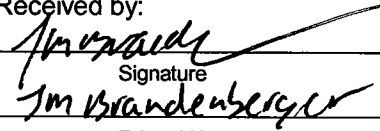
Date: _____

Page: _____ of _____

COC Number: _____

Battelle

Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382

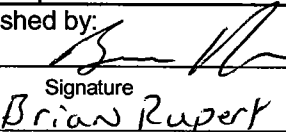
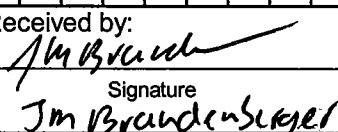
Project No.: 43043				As Per Table 2-1 in QAPP														Laboratory: Battelle MSL							
Project Name: TMDL in Sinclair & Dyes Inlets																		Address: 1529 W. Sequim Bay Road Sequim, WA 98382							
Project Manager: Martin C. Miller																		Attention: Jill Brandenberger							
Phone: (360) 681-3668				Testing Parameters														Observations, Instructions							
Lab. Use only: Lab ID	Sample ID	Collection Date/Time	Matrix	Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISST	Nitrate+Nitrite	Total Phosphorus	TKN	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics			No. of containers	StationID	Storm#	Jar#	%Full
	T1206-A	2/28/05 1732	W																			PSNS126	2005 Feb 28	1	100
	T1206-B	2/28/05 2032	W																			PSNS126		2	100
	T1206-C	2/28/05 2332	W																			PSNS126		3	100
	T1206-D	3/1/05 0832	W																			PSNS126		4	100
	T1206-E	3/1/05 0532	W																			PSNS126		5	100
	T1206-F	3/1/05 0832	W																			PSNS126		6	100
	T1206-G	3/1/05 1132	W																			PSNS126		7	100
	T1206-H		W																			PSNS126		8	50
IME/DME 172/173 ORG-238	Flow Composite	T1206 3/2/05 1940		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Relinquished by:  3/2/05				Received by:  3/2/05 0930														Total # of Containers							
Signature: _____ Date: _____ Time: _____ Printed Name: Brian Rupert Company: TEC				Signature: _____ Date: _____ Time: _____ Printed Name: Jill Brandenberger Company: Battelle														Shipment Method:							
																		Special Requirements or Conditions:							
Relinquished by:				Received by:														Sample Disposition:							
Signature: _____ Date: _____ Time: _____				Signature: _____ Date: _____ Time: _____														Distribution:							
Printed Name: _____ Company: _____				Printed Name: _____ Company: _____														1) 2 copies to the Laboratory							
																		2) 1 copy to project manager							
																		3) Return completed original to Battelle Marine Sciences Laboratory							

SAMPLE CHAIN OF CUSTODY FORM

Date: _____
 Page: _____ of _____
 COC Number: _____

Battelle

Marine Sciences Laboratory
 1529 West Sequim Bay Road
 Sequim, Washington 98382

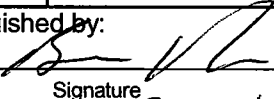
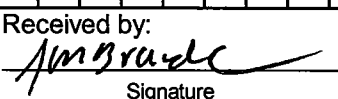
Project No.: 43043				As Per Table 2-1 in QAPP														Laboratory: Battelle MSL					
Project Name: TMDL in Sinclair & Dyes Inlets																		Address: 1529 W. Sequim Bay Road Sequim, WA 98382					
Project Manager: Martin C. Miller																		Attention: Jill Brandenberger					
Phone: (360) 681-3668				Testing Parameters														Observations, Instructions					
Lab. Use only: Lab ID	Sample ID	Collection Date/Time	Matrix	Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISST	Nitrate+Nitrite	Total Phosphorus	TKN	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics	No. of containers	StationID	Storm#	Jar#	%Full
2318 *	T1205-A	2/28/05 1726	W																	PSNS124	2005 Feb 28	1	100
	T1205-B	2/28/05 2026	W																	PSNS124		2	100
	T1205-C	2/28/05 2326	W																	PSNS124		3	100
	T1205-D	3/1/05 0226	W																	PSNS124		4	100
	T1205-E	3/1/05 0526	W																	PSNS124		5	100
	T1205-F	3/1/05 0826	W																	PSNS124		6	100
	T1205-G	3/1/05 1126	W																	PSNS124		7	45
	~~T1205-H~~	~~W~~																		~~PSNS124~~		~~8~~	
THE/DME 170/171	Flowcomp T1205	3/2/05 1930		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
ORG- 237																							
Relinquished by:  3/2/05				Received by:  3/2/05 0930														Total # of Containers					
Signature: Brian Rupert Printed Name: Brian Rupert Company: TEC				Signature: Jim Brandenberger Printed Name: Jim Brandenberger Company: Battelle														Shipment Method:					
																		Special Requirements or Conditions:					
Relinquished by:				Received by:														Sample Disposition:					
Signature: _____ Date: _____ Time: _____				Signature: _____ Date: _____ Time: _____														Distribution:					
Printed Name: _____ Company: _____				Printed Name: _____ Company: _____														1) 2 copies to the Laboratory					
																		2) 1 copy to project manager					
																		3) Return completed original to Battelle Marine Sciences Laboratory					

SAMPLE CHAIN OF CUSTODY FORM

Date: _____
 Page: _____ of _____
 COC Number: _____

Battelle

Marine Sciences Laboratory
 1529 West Sequim Bay Road
 Sequim, Washington 98382

Project No.: 43043				As Per Table 2-1 in QAPP														Laboratory: Battelle MSL						
Project Name: TMDL in Sinclair & Dyes Inlets																		Address: 1529 W. Sequim Bay Road Sequim, WA 98382						
Project Manager: Martin C. Miller																		Attention: Jill Brandenberger						
Phone: (360) 681-3668																		Observations, Instructions						
Lab. Use only: Lab ID	Sample ID	Collection Date/Time	Matrix	Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISST	Nitrate+Nitrite	Total Phosphorus	TKN	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics	PEST	No. of containers	StationID	Storm#	Jar#	%Full
	T1204-A	2/28/05 1741	W																		PSNS015	20050228	1	100
	T1204-B	2/28/05 2041	W																		PSNS015		2	100
	T1204-C	2/28/05 2341	W																		PSNS015		3	100
	T1204-D	3/1/05 0241	W																		PSNS015		4	100
	T1204-E	3/1/05 0541	W																		PSNS015		5	100
	T1204-F	3/1/05 0641	W																		PSNS015		6	100
	T1204-G	3/1/05 1141	W																		PSNS015		7	25
	~~T1204-H~~		W																		~~PSNS015~~		~~8~~	
TIME/DME 168/109 ORG-236	Flow Composite	3/2/05 1910		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
	T1204																							
Relinquished by:  3/2/05				Received by:  3/2/05 0930														Total # of Containers						
Signature: _____ Date: _____ Time: _____ Printed Name: Brian Rupert Company: TEC				Signature: _____ Date: _____ Time: _____ Printed Name: Jim Brandenberger Company: Battelle														Shipment Method:						
																		Special Requirements or Conditions:						
Relinquished by:				Received by:														Sample Disposition:						
Signature: _____ Date: _____ Time: _____				Signature: _____ Date: _____ Time: _____														Distribution:						
Printed Name: _____ Company: _____				Printed Name: _____ Company: _____														1) 2 copies to the Laboratory						
																		2) 1 copy to project manager						
																		3) Return completed original to Battelle Marine Sciences Laboratory						

SAMPLE CHAIN OF CUSTODY FORM

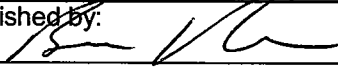
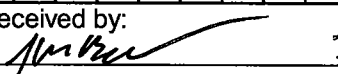
Date: _____
 Page: _____ of _____
 COC Number: _____

Battelle

Marine Sciences Laboratory
 1529 West Sequim Bay Road
 Sequim, Washington 98382

Project No.: 43043 Project Name: TMDL in Sinclair & Dyes Inlets Project Manager: Martin C. Miller Phone: (360) 681-3668	<u>As Per Table 2-1 in QAPP</u>	Laboratory: Battelle MSL Address: 1529 W. Sequim Bay Road Sequim, WA 98382 Attention: Jill Brandenberger
--	--	---

2318 * Lab. Use only: Lab ID	Sample ID	Collection Date/Time	Matrix	Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISST	Nitrate+Nitrite	Total Phosphorus	TKN	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics			No. of containers	StationID	Storm#	Jar#	%Full
																						B-ST/CSO16			
	T1203-A	2/28/05 1452	W																			B-ST/CSO16	2005 Feb 28	1	100
	T1203-B	2/28/05 1752	W																			B-ST/CSO16		2	100
	T1203-C	2/28/05 2052	W																			B-ST/CSO16		3	100
	T1203-D	2/28/05 2352	W																			B-ST/CSO16		4	100
	T1203-E	3/1/05 0252	W																			B-ST/CSO16		5	100
	T1203-F	3/1/05 0552	W																			B-ST/CSO16		6	100
	T1203-G	3/1/05 0852	W																			B-ST/CSO16		7	100
	~~T1203-H~~		W																			~~B-ST/CSO16~~		~~8~~	
TIME/DME 166/167 ORG - 235	Flow composite	3/2/05 1850		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X						

Relinquished by:  Signature: _____ Date: 3/2/05 Time: _____ Printed Name: Brian Rupert Company: TEC	Received by:  Signature: _____ Date: 3/2/05 Time: 0930 Printed Name: Jill Brandenberger Company: Battelle	Total # of Containers Shipment Method: Special Requirements or Conditions: Sample Disposition:
Relinquished by: Signature: _____ Date: _____ Time: _____ Printed Name: _____ Company: _____	Received by: Signature: _____ Date: _____ Time: _____ Printed Name: _____ Company: _____	Distribution: 1) 2 copies to the Laboratory 2) 1 copy to project manager 3) Return completed original to Battelle Marine Sciences Laboratory

SAMPLE CHAIN OF CUSTODY FORM

Date: _____
 Page: _____ of _____
 COC Number: _____

Battelle

Marine Sciences Laboratory
 1529 West Sequim Bay Road
 Sequim, Washington 98382

Project No.: 43043

Project Name: TMDL in Sinclair & Dyes Inlets

Project Manager: Martin C. Miller

Phone: (360) 681-3668

As Per Table 2-1 in QAPP

Laboratory: Battelle MSL

Address: 1529 W. Sequim Bay Road
 Sequim, WA 98382

Attention: Jill Brandenberger

Testing Parameters

Observations, Instructions

Lab. Use only: Lab ID	Sample ID	Collection Date/Time	Matrix	Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISST	Nitrate+Nitrite	Total Phosphorus	TKN	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics	No. of containers	StationID	Storm#	Jar#	%Full
2318*	T1202-A	2/28/05 1521	W																	B-ST28	2005 FEB 28	1	50%
	T1202-B	2/28/05 1821	W																	B-ST28		2	100%
	T1202-C	2/28/05 2121	W																	B-ST28		3	100%
	T1202-D	3/1/05 0021	W																	B-ST28		4	100%
	T1202-E	3/1/05 0321	W																	B-ST28		5	0% Full
	T1202-F	3/1/05 0621	W																	B-ST28		6	45%
	T1202-G	3/1/05 0921	W																	B-ST28		7	100%
	T1202-H	3/1/05 0921	W																	B-ST28		8	
	Flow																						
Time/Date	Composite																						
164/165	T1202	3/2/05 1830		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
ORC-	234																						

Relinquished by:

Signature: Brian Rupert Date: 3/2/05 Time: _____
 Printed Name: Brian Rupert Company: TEC

Received by:

Signature: Jill Brandenberger Date: 3/2/05 Time: 0930
 Printed Name: Jill Brandenberger Company: Battelle

Total # of Containers

Shipment Method:

Special Requirements or Conditions:

Sample Disposition:

Distribution:

- 1) 2 copies to the Laboratory
- 2) 1 copy to project manager
- 3) Return completed original to Battelle Marine Sciences Laboratory

Relinquished by:

Signature: _____ Date: _____ Time: _____
 Printed Name: _____ Company: _____

Received by:

Signature: _____ Date: _____ Time: _____
 Printed Name: _____ Company: _____

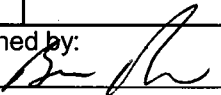
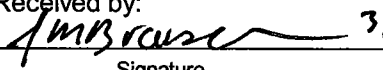
Date: _____
Page: _____ of _____
COC Number: _____

**Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382**

[illegible]

Date: _____
Page: _____ of _____
COC Number: _____

Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382

Project No.: 43043				As Per Table 2-1 in QAPP														Laboratory: Battelle MSL						
Project Name: TMDL in Sinclair & Dyes Inlets																		Address: 1529 W. Sequim Bay Road Sequim, WA 98382						
Project Manager: Martin C. Miller																		Attention: Jill Brandenberger						
Phone: (360) 681-3668				Testing Parameters														Observations, Instructions						
Lab. Use only: Lab ID	Sample ID	Collection Date/Time	Matrix	Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISST	Nitrate+Nitrite	Total Phosphorus	TKN	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics	pest	No. of containers	StationID	Storm#	Jar#	%Full
																					BL	2005 FEB 28	1	100%
	T1200-A	2/28/05 1538	W																		BL		2	100%
	T1200-B	2/28/05 2138	W																		BL		3	100%
	T1200-C	3/1/05 0338	W																		BL		4	30%
	T1200-D	3/1/05 0938	W																		BL			
	T1200-BN																							
IME DME	160 161	T1200 composite	3/2/05 1445		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
ORIG 232		Equal composites of A, B, and C.																						
		jar.																						
Relinquished by:				Received by:														Total # of Containers						
Signature:  Date: 3/2/05 Time:				Signature:  Date: 3/2/05 Time: 0930														Shipment Method:						
Printed Name: Brian Rupert Company: TEC				Printed Name: Jill Brandenberger Company: Battelle														Special Requirements or Conditions:						
Relinquished by:				Received by:														Sample Disposition:						
Signature: _____ Date: _____ Time: _____				Signature: _____ Date: _____ Time: _____														Distribution:						
Printed Name: _____ Company: _____				Printed Name: _____ Company: _____														1) 2 copies to the Laboratory						
																		2) 1 copy to project manager						
																		3) Return completed original to						
																		Battelle Marine Sciences Laboratory						

Date: 03-01-05
Page: 1 of 1
COC Number: _____

**Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382**

[illegible]

SAMPLE CHAIN OF CUSTODY FORM

Date: 3/1/05
 Page: 1 of 1
 COC Number: _____

Battelle

Marine Sciences Laboratory
 1529 West Sequim Bay Road
 Sequim, Washington 98382

Project No.: 43043

Project Name: TMDL in Sinclair & Dyes Inlets

Project Manager: Martin C. Miller

Phone: (360) 681-3668

Laboratory: Battelle MSL

Address: 1529 W. Sequim Bay Road
 Sequim, WA 98382

Attention: Jill Brandenberger

Testing Parameters

Observations, Instructions

Lab. Use only: Lab ID	Sample ID	Collection Date/Time	Matrix	Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISST	Nitrate+Nitrite	Total Phosphorus	TKN	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics	No. of containers	StationID	Storm#	Grab#	Estimated Flow (CFS)
	~~Code should be 6~~			X	X	X	X	X	X	X	X	X	X	X	X	X	X			KAR-WWTP	17-Jan-05		
				X	X	X	X	X	X	X	X	X	X	X	X	X	X			KAR-WWTP	17-Jan-05		
				X	X	X	X	X	X	X	X	X	X	X	X	X	X			KAR-WWTP	17-Jan-05		
	G1201-A	8:00 3/1/05		X	X	X	X	X	X	X	X	X	X	X	X	X	X			KAR-WWTP	1-Mar-05	1	3.6 CFS
	G1201-B	10:30 3/1/05		X	X	X	X	X	X	X	X	X	X	X	X	X	X			KAR-WWTP	1-Mar-05	2	3.9 CFS
	G1201-C	12:45 3/1/05		X	X	X	X	X	X	X	X	X	X	X	X	X	X			KAR-WWTP	1-Mar-05	3	3.0 CFS
	~~176/177 Composite~~	3/2/05 2115		X	X	X	X	X	X	X	X	X	X	X	X	X	X						

Relinquished by:

Bryan Gallagher 3/1/05 1:00
 Signature Date Time
Bryan Gallagher Karcher Creek
 Printed Name Company

Received by:

Brian Rupert 3/1/05 1344
 Signature Date Time
Brian Rupert TEC
 Printed Name Company

Total # of Containers

Shipment Method:

Special Requirements or Conditions:

Relinquished by:

 Signature Date Time
 Printed Name Company

Received by:

Jm Brandenberger 3/2/05 938
 Signature Date Time
Jm Brandenberger Battelle
 Printed Name Company

Sample Disposition:

Distribution:

- 1) 2 copies to the Laboratory
- 2) 1 copy to project manager
- 3) Return completed original to Battelle Marine Sciences Laboratory

Date: _____
Page: _____ of _____
COC Number: _____

Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382

[illegible]

Date: _____
Page: _____ of _____
COC Number: _____

**Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382**

[illegible]

Date: _____
Page: _____ of _____
COC Number: _____

**Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382**

[illegible]

Project No.: 43043
 Project Name: TMDL in Sinclair & Dyes Inlets
 Project Manager: Martin C. Miller
 Phone: (360) 681-3668

Date:
 Sample Team: Whitney, Walpole, Beckwith (PSNS)
 Event: Sinclair Marine and Nearshore

Laboratory: Battelle MSL
 Address: 1529 W. Sequim Bay Road
 Sequim, WA 98382
 ATTN: Jill Brandenburg

Analyze parameters per Table 2-1 in ENVVEST QAPP

Observations, Instructions

Lab ID	Sample ID	Collection Date	Time	Matrix	Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISSST	Nitrate+Nitrite	Total Phosphorus	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics	NUTRIENTS	Hg	OSAL (ocean Salinity)	No. of Battelle containers	StationID	Storm#	Jar#	% Full
204/205	M4150	3/2/05	6/1900 6:53A	H2O									x	x	x							1	P3	2005ENV02		95
	M4150SAL	3/2/05	6:53:00	H2O																	x	1	P3	2005ENV02		95
206/207	M4151	3/2/05	1900 7:00:00	H2O									x	x	x							1	P2	2005ENV02		95
	M4151SAL	3/2/05	900 7:1000:0	H2O																	x	1	P2	2005ENV02		95
210/211	M4152	3/2/05	7:52:00	H2O									x	x	x							1	P1	2005ENV02		95
	M4152SAL	3/2/05	7:52:00	H2O																	x	1	P1	2005ENV02		95
212/213	M4153	3/2/05	8:23:00	H2O									x	x	x							1	M4	2005ENV02		95
	M4154NUTSHG	3/2/05	8:23:00	H2O														x	x			1	M4	2005ENV02	Not Rec'd	95
	M4154SAL	3/2/05	8:23:00	H2O														x	x			1	M4	2005ENV02		95
	M4154NUTSHG	3/2/05	8:23:00	H2O														x	x			1	M4 DUP	2005ENV02	Not Rec'd	95
	M4154SAL	3/2/05	8:23:00	H2O																x		1	M4 DUP	2005ENV02		95
208/209	M4154	3/2/05	8:23:00	H2O									x	x	x							1	M4 DUP	2005ENV02		95
214/215	M4155	3/2/05	8:46:00	H2O									x	x	x							1	M3.3	2005ENV02		95
	M4155SAL	3/2/05	8:46:00	H2O																	x	1	M3.3	2005ENV02		95
216/217	M4156	3/2/05	9:00:00	H2O									x	x	x							1	SN12	2005ENV02		95
	M4156SAL	3/2/05	9:00:00	H2O																	x	1	SN12	2005ENV02		95
219/219	M4157	3/2/05	9:14:00	H2O									x	x	x							1	BJ-EST	2005ENV02		95
	M4157SAL	3/2/05	9:14:00	H2O																	x	1	BJ-EST	2005ENV02		95
220/221	M4158	3/2/05	9:47:00	H2O									x	x	x							1	M3.1	2005ENV02		95
	M4158NUTSHG	3/2/05	9:47:00	H2O														x	x			1	M3.1	2005ENV02		95
	M4158SAL	3/2/05	9:47:00	H2O																x		1	M3.1	2005ENV02		95
222/225	M4159	3/2/05	11:17:00	H2O									x	x	x				x	x		1	M6	2005ENV02		95
	M4159NUTSHG	3/2/05	11:17:00	H2O														x	x			1	M6	2005ENV02		95
	M4159SAL	3/2/05	11:17:00	H2O																x		1	M6	2005ENV02		95
224/225	M4160	3/2/05	9:58:00	H2O									x	x	x							1	DY01	2005ENV02		95
	M4160SAL	3/2/05	9:58:00	H2O																	x	1	DY01	2005ENV02		95
230/231	M4162	3/2/05	8:40:00 AM	H2O									x	x	x							1	PL04	2005ENV02		95
	M4162SAL	3/2/05	8:40:00 AM	H2O																	x	1	PL04	2005ENV02		95
226/227	M4163	3/2/05	9:31:00	H2O									x	x	x							1	PL05	2005ENV02		95
	M4163SAL	3/2/05	9:31:00	H2O																	x	1	PL05	2005ENV02		95
228/229	M4164	3/2/05	10:51:00	H2O									x	x	x							1	PL06	2005ENV02		95
	M4164SAL	3/2/05	10:51:00	H2O																	x	1	PL06	2005ENV02		95

m4 = m4153
 m4 dup = m4154

Not Rec'd
 Not Rec'd

Received by: Jim Strasser 3/2/05 1519
Jim Brandenburg Battelle
 Signature Date Time
 Printed Name Company

Total # of Containers 30

Shipment Method:
 Special Requirements or Conditions:

Sample Disposition:

Distribution:
 1) 2 copies to the Laboratory
 2) 1 copy to project manager
 3) Return completed original to
 Battelle Marine Sciences Laboratory

COC Number: 2005ENV0 2005ENV02

CHAIN OF CUSTODY FORM

Page: 2 of 2

Project No.: 43043
 Project Name: TMDL in Sinclair & Dyes Inlets
 Project Manager: Martin C. Miller
 Phone: (360) 681-3668

Date:
 Sample Team: Whitney, Walpole, Beckwith (PSNS)
 Event: Sinclair Marine and Nearshore

Laboratory: Battelle MSL
 Address: 1529 W. Sequim Bay Road
 Sequim, WA 98382
 ATTN: Jill Brandenburg

Analyze parameters per Table 2-1 in ENVVEST QAPP

Observations, Instructions

Lab. Use only: Lab ID	Sample ID	Collection Date	Time	Matrix	Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISST	Nitrate+Nitrite	Total Phosphorus	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics	NUTRIENTS	Hg	OSAL (ocean Salinity)	No. of Battelle containers	StationID	Storm#	Jar#	% Full
	M4150-TS	3/2/05	6:53:00	H2O			x	x														1	P3	2005ENV02		95
	M4151-TS	3/2/05	7:10AM	H2O			x	x														1	P2	2005ENV02		95
	M4152-TS	3/2/05	7:52:00	H2O			x	x														1	P1	2005ENV02		95
	~~M4153-TS~~	3/2/05	8:23:00	H2O			x	x														1	M4	2005ENV02		95
	M4154-TS	3/2/05	8:23:00	H2O			x	x														1	M4 DUP	2005ENV02		95
	M4155-TS	3/2/05	8:46:00	H2O			x	x														1	M3.3	2005ENV02		95
	M4156-TS	3/2/05	9:00:00	H2O			x	x														1	SN12	2005ENV02		95
	M4157-TS	3/2/05	9:14:00	H2O			x	x														1	BJ-EST	2005ENV02		95
	M4158-TS	3/2/05	9:47:00	H2O			x	x														1	M3.1	2005ENV02		95
	M4159-TS	3/2/05	9:58:00	H2O			x	x														1	M6	2005ENV02		95
	M4160-TS	3/2/05	11:17:00	H2O			x	x														1	DY01	2005ENV02		95
	M4162-TS	3/2/05	8:40:00 AM	H2O			x	x														1	PL04	2005ENV02		95
	M4163-TS	3/2/05	9:31:00	H2O			x	x														1	PL05	2005ENV02		95
	M4164-TS	3/2/05	10:51:00	H2O			x	x														1	PL06	2005ENV02		95

Relinquished by: *Whitney* 3/2/05 1300
 Signature Date Date Time

Printed Name Compan Company

Relinquished by:

Signature Date Date Time

Printed Name Compan Company

Received by: *Jm Brand* 3/2/05 1517
 Signature Date Time

Jm Brandenburg Battelle
 Printed Name Company

Received by:

Signature Date Time

Printed Name Company

Total # of Containers 14

Shipment Method:
 Special Requirements or Conditions:

Sample Disposition:

Distribution:

- 1) 2 copies to the Laboratory
- 2) 1 copy to project manager
- 3) Return completed original to Battelle Marine Sciences Laboratory

Project No.: 43043

Project Name: TMDL in Sinclair & Dyes Inlets

Date: March 21, 2005

Sample Team: Whitney, Walpole, Beckwith (PSNS)

Analyze parameters per Table 2-1 in ENVVEST QAPP

Laboratory: Battelle MSL

Address: 1529 W. Sequim Bay Road

Observations, Instructions

Lab. Use only: Lab ID	Sample ID	Collection Date	Collection Time	Matrix	Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISST	Nitrate+Nitrite	Total Phosphorus	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics	NUTRIENTS	Hg	OSAL (ocean Salinity)	No. of Battelle containers	StationID	Storm#	Jar#	% Full
	M4200	3/21/05	6:46:00	H2O									x	x	x	x						1	P3	2005ENV03	239/240	95
	M4200SAL	3/21/05	6:46:00	H2O																	x	1	P3	2005ENV03		95
	M4201	3/21/05	7:10:00	H2O									x	x	x	x						1	P2	2005ENV03	241/242	95
	M4201SAL	3/21/05	7:10:00	H2O																	x	1	P2	2005ENV03		95
	M4202	3/21/05	7:47:00	H2O									x	x	x	x						1	P1	2005ENV03	243/244	95
	M4202SAL	3/21/05	7:47:00	H2O																	x	1	P1	2005ENV03		95
	M4203	3/21/05	8:29:00	H2O									x	x	x	x						1	M4	2005ENV03	245/246	95
	M4203NUTSHG	3/21/05	8:29:00	H2O														x	x			1	M4	2005ENV03		95
	M4203SAL	3/21/05	8:29:00	H2O																	x	1	M4	2005ENV03		95
	M4204	3/21/05	8:44:00	H2O									x	x	x	x						1	M3.3	2005ENV03	247/248	95
	M4204SAL	3/21/05	8:44:00	H2O																	x	1	M3.3	2005ENV03		95
	M4205	3/21/05	8:59:00	H2O									x	x	x	x						1	SN12	2005ENV03	249/250	95
	M4205SAL	3/21/05	8:59:00	H2O																	x	1	SN12	2005ENV03		95
	M4206	3/21/05	8:59:00	H2O									x	x	x	x						1	SN12 DUP	2005ENV03	251/252	95
	M4206SAL	3/21/05	8:59:00	H2O																	x	1	SN12 DUP	2005ENV03		95
	M4207	3/21/05	9:13:00	H2O									x	x	x	x						1	BJ-EST	2005ENV03	253/254	95
	M4207SAL	3/21/05	9:13:00	H2O																	x	1	BJ-EST	2005ENV03		95
	M4208	3/21/05	9:40:00	H2O									x	x	x	x						1	M3.1	2005ENV03	255/256	95
	M4208NUTSHG	3/21/05	9:40:00	H2O														x	x			1	M3.1	2005ENV03		95
	M4208SAL	3/21/05	9:40:00	H2O																	x	1	M3.1	2005ENV03		95
	M4209	3/21/05	10:51:00	H2O									x	x	x	x						1	M6	2005ENV03	257/258	95
	M4209NUTSHG	3/21/05	10:51:00	H2O														x	x			1	M6	2005ENV03		95
	M4209SAL	3/21/05	10:51:00	H2O																	x	1	M6	2005ENV03		95
	M4210	3/21/05	9:52:00	H2O									x	x	x	x						1	DY01	2005ENV03	259/260	95
	M4210SAL	3/21/05	9:52:00	H2O																	x	1	DY01	2005ENV03		95
	M4212	3/21/05	8:15:00	H2O									x	x	x	x						1	PL07	2005ENV03	261/262	95
	M4212SAL	3/21/05	8:15:00	H2O																	x	1	PL07	2005ENV03		95
	M4213	3/21/05	9:25:00	H2O									x	x	x	x						1	PL08	2005ENV03	263/264	95
	M4213SAL	3/21/05	9:25:00	H2O																	x	1	PL08	2005ENV03		95
	M4214	3/21/05	10:30:00	H2O									x	x	x	x						1	PL09	2005ENV03	265/266	95
	M4214SAL	3/21/05	10:30:00	H2O																	x	1	PL09	2005ENV03		95

Relinquished by: Vickie Whitney 3/21/05 2:09
Signature Date Time
Vickie Whitney
Printed Name Company PSNS

Received by: Jm Brandenburg 3/21/05 2:09
Signature Date Time
Jm Brandenburg Battelle
Printed Name Company

Total # of Containers: 30

Shipment Method:

Special Requirements or Conditions:

Sample Disposition:

COC Number:

2005ENV03

CHAIN OF CUSTODY FORM

Page: 2 of 2

Project No.: 43043

Project Name: TMDL in Sinclair & Dyes Inlets

Date: March 21, 2005

Sample Team: Whitney, Walpole, Beckwith (PSNS)

Analyze parameters per Table 2-1 in ENVVEST QAPP

Laboratory: Battelle MSL

Address: 1529 W. Sequim Bay Road
Observations, Instructions

Lab. Use only : Lab ID	Sample ID	Collection Date	Collection Time	Matrix	Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISST	Nitrate+Nitrite	Total Phosphorus	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics	NUTRIENTS	Hg	OSAL (ocean Salinity)	No. of Battelle containers	StationID	Storm#	Jar#	% Full
	M4200-TS	3/21/05	6:46:00	H2O			x	x														1	P3	2005ENV03		95
	M4201-TS	3/21/05	7:10:00	H2O			x	x														1	P2	2005ENV03		95
	M4202-TS	3/21/05	7:47:00	H2O			x	x														1	P1	2005ENV03		95
	M4203-TS	3/21/05	8:29:00	H2O			x	x														1	M4	2005ENV03		95
	M4204-TS	3/21/05	8:44:00	H2O			x	x														1	M3.3	2005ENV03		95
	M4205-TS	3/21/05	8:59:00	H2O			x	x														1	SN12	2005ENV03		95
	M4206-TS	3/21/05	8:59:00	H2O			x	x														1	SN12 DUP	2005ENV03		95
	M4207-TS	3/21/05	9:13:00	H2O			x	x														1	BJ-EST	2005ENV03		95
	M4208-TS	3/21/05	9:40:00	H2O			x	x														1	M3.1	2005ENV03		95
	M4209-TS	3/21/05	10:51:00	H2O			x	x														1	M6	2005ENV03		95
	M4210-TS	3/21/05	9:52:00	H2O			x	x														1	DY01	2005ENV03		95
	M4212-TS	3/21/05	8:15:00	H2O			x	x														1	PL07	2005ENV03		95
	M4213-TS	3/21/05	9:25:00	H2O			x	x														1	PL08	2005ENV03		95
	M4214-TS	3/21/05	10:30:00	H2O			x	x														1	PL09	2005ENV03		95

Relinquished by:	Received by:	Total # of Containers
<i>Vickie Whitney</i> 3/21/05 2:09 PM PSNS	<i>Im Brandenberger</i> 3/21/05 2:09 PM Battelle	14
Signature	Signature	Shipment Method:
Printed Name	Printed Name	Special Requirements or Conditions:
Relinquished by:	Received by:	Sample Disposition:
Signature	Signature	Distribution:
Date	Date	1) 2 copies to the Laboratory
Time	Time	2) 1 copy to project manager
Printed Name	Printed Name	3) Return completed original to
Company	Company	Battelle Marine Sciences Laboratory

Cooler Temp 6.0°C

Cooler Temp 5.9°C

Cooler Temp 5.6°C

SAMPLE CHAIN OF CUSTODY FORM

Date: 3/21/05
 Page: 3 of 8
 COC Number: _____

Battelle

Marine Sciences Laboratory
 1529 West Sequim Bay Road
 Sequim, Washington 98382

Project No.: 43043				As Per Table 2-1 in QAPP																		Laboratory: Battelle MSL			
Project Name: TMDL in Sinclair & Dyes Inlets																						Address: 1529 W. Sequim Bay Road Sequim, WA 98382			
Project Manager: Martin C. Miller																						Attention: Jill Brandenberger			
Phone: (360) 681-3668				Testing Parameters																		Observations, Instructions			
Lab. Use only: Lab ID	Sample ID	Collection Date/Time	Matrix	Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISST	Nitrate+Nitrite	Total Phosphorus	TKN	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics	No. of containers	StationID	Storm#	Jar#	%Full		
	T1209-A	3/19/05 1254	W																	B-ST28	205Mar192	1	100		
	T1209-B	3/19/05 1554	W																	B-ST28		2	100		
	T1209-C	3/19/05 1854	W																	B-ST28		3	95		
	T1209-D	3/19/05 2154	W																	B-ST28		4	100		
	T1209-E	3/20/05 0054	W																	B-ST28		5	100		
	T1209-F	3/20/05 0354	W																	B-ST28		6	100		
	T1209-G	3/20/05 0654	W																	B-ST28		7	100		
	T1209-H	3/20/05 0954	W																	B-ST28		8	80		
	T1209 composite	3/20/05		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	THE/DME	ONE				
																				2674268	309				
Relinquished by: <u>JL</u> <u>3/21/05</u> <u>0900</u>				Received by: <u>Jm Brandenberger</u> <u>3/21/05</u> <u>0900</u>																		Total # of Containers			
Signature: <u>JL</u> Date: <u>3/21/05</u> Time: <u>0900</u>				Signature: <u>Jm Brandenberger</u> Date: <u>3/21/05</u> Time: <u>0900</u>																		Shipment Method:			
Printed Name: <u>JL</u> Company: <u>TEC</u>				Printed Name: <u>Jm Brandenberger</u> Company: <u>Battelle</u>																		Special Requirements or Conditions:			
Relinquished by:				Received by:																		Sample Disposition:			
Signature: _____ Date: _____ Time: _____				Signature: _____ Date: _____ Time: _____																		Distribution:			
Printed Name: _____ Company: _____				Printed Name: _____ Company: _____																		1) 2 copies to the Laboratory			
																						2) 1 copy to project manager			
																						3) Return completed original to			
																						Battelle Marine Sciences Laboratory			

SAMPLE CHAIN OF CUSTODY FORM

Date: 3/21/05
 Page: 4 of 8
 COC Number: _____

Battelle

Marine Sciences Laboratory
 1529 West Sequim Bay Road
 Sequim, Washington 98382

Project No.: 43043

Project Name: TMDL in Sinclair & Dyes Inlets

Project Manager: Martin C. Miller

Phone: (360) 681-3668

As Per Table 2-1 in QAPP

Laboratory: Battelle MSL

Address: 1529 W. Sequim Bay Road
 Sequim, WA 98382

Attention: Jill Brandenberger

Testing Parameters
Observations, Instructions

Lab. Use only: Lab ID	Sample ID	Collection Date/Time	Matrix	Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISST	Nitrate+Nitrite	Total Phosphorus	TKN	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics	No. of containers	StationID	Storm#	Jar#	%Full
	T1210-A	3/19/05 1308	W																	B-ST/CSO16	2005 Mar 192	1	100
	T1210-B	3/19/05 1608	W																	B-ST/CSO16		2	100
	T1210-C	3/19/05 1908	W																	B-ST/CSO16		3	100
	T1210-D	3/19/05 2208	W																	B-ST/CSO16		4	100
	T1210-E	3/20/05 0108	W																	B-ST/CSO16		5	100
	T1210-F	3/20/05 0408	W																	B-ST/CSO16		6	100
	T1210-G	3/20/05 0708	W																	B-ST/CSO16		7	100
	T1210-H	3/20/05 1008	W																	B-ST/CSO16		8	100
	T1210 composite	3/21/05	W	<	x	<	<	<	<	<	<	<	<	<	<	<	<	<		THE / ONE	DIRT		
																				269 270	310		

Relinquished by:

JM 3/21/05 0900
 Signature Date Time
JM TEC
 Printed Name Company

Received by:

JM Brandenberger 3/21/05 0900
 Signature Date Time
JM Brandenberger Battelle
 Printed Name Company

Total # of Containers

Shipment Method:

Special Requirements or Conditions:

Sample Disposition:

Distribution:

- 1) 2 copies to the Laboratory
- 2) 1 copy to project manager
- 3) Return completed original to Battelle Marine Sciences Laboratory

Relinquished by:

Signature Date Time
 Printed Name Company

Received by:

Signature Date Time
 Printed Name Company

SAMPLE CHAIN OF CUSTODY FORM

Date: 3/21/05
 Page: 5 of 8
 COC Number: _____

Battelle

Marine Sciences Laboratory
 1529 West Sequim Bay Road
 Sequim, Washington 98382

Project No.: 43043

Project Name: TMDL in Sinclair & Dyes Inlets

Project Manager: Martin C. Miller

Phone: (360) 681-3668

As Per Table 2-1 in QAPP

Laboratory: Battelle MSL

Address: 1529 W. Sequim Bay Road
 Sequim, WA 98382

Attention: Jill Brandenberger

Observations, Instructions

Lab. Use only: Lab ID	Sample ID	Collection Date/Time	Matrix	Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISST	Nitrate+Nitrite	Total Phosphorus	TKN	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics			No. of containers	Cooler Temp = 2.8°C Cooler Temp = 5.4°C Cooler Temp = 5.4°C			
																						StationID	Storm#	Jar#	%Full
	T1211-A	3/19/05 1238	W																			PSNS015	2005Mar192	1	100
	T1211-B	3/19/05 1538	W																			PSNS015	↓	2	100
	T1211-C	3/19/05 1838	W																			PSNS015		3	100
	T1211-D	3/19/05 2138	W																			PSNS015		4	100
	T1211-E	3/20/05 0038	W																			PSNS015		5	100
	T1211-F	3/20/05 0338	W																			PSNS015		6	100
	T1211-G	3/20/05 0638	W																			PSNS015		7	100
	T1211-H	3/20/05 0938	W																			PSNS015		8	85
	T1211 Composite	3/21/05	W	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			TRUE DATE		0900	
																						271 272	311		

Relinquished by:

JL Estes 3/21/05 0900
 Signature Date Time
 J. D. Estes TEC
 Printed Name Company

Received by:

Jm Brandenberger 3/21/05 0900
 Signature Date Time
 Jm Brandenberger Battelle
 Printed Name Company

Total # of Containers

Shipment Method:

Special Requirements or Conditions:

Sample Disposition:

Distribution:

- 1) 2 copies to the Laboratory
- 2) 1 copy to project manager
- 3) Return completed original to Battelle Marine Sciences Laboratory

Relinquished by:

 Signature Date Time

 Printed Name Company

Received by:

 Signature Date Time

 Printed Name Company

SAMPLE CHAIN OF CUSTODY FORM

Date: 3/21/05
 Page: 6 of 8
 COC Number: _____

Battelle

Marine Sciences Laboratory
 1529 West Sequim Bay Road
 Sequim, Washington 98382

Project No.: 43043

Project Name: TMDL in Sinclair & Dyes Inlets

Project Manager: Martin C. Miller

Phone: (360) 681-3668

As Per Table 2-1 in QAPP

Laboratory: Battelle MSL

Address: 1529 W. Sequim Bay Road
 Sequim, WA 98382

Attention: Jill Brandenberger

Observations, Instructions

Lab. Use only: Lab ID	Sample ID	Collection Date/Time	Matrix	Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISST	Nitrate+Nitrite	Total Phosphorus	TKN	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics	No. of containers	StationID	Storm#	Jar#	%Full
	T1212-A	3/19/05 1230	W																	PSNS124	2005Mar192	1	100
	T1212-B	3/19/05 1530	W																	PSNS124		2	100
	T1212-C	3/19/05 1830	W																	PSNS124		3	100
	T1212-D	3/19/05 2130	W																	PSNS124		4	100
	T1212-E	3/20/05 0030	W																	PSNS124		5	100
	T1212-F	3/20/05 0330	W																	PSNS124		6	100
	T1212-G	3/20/05 0630	W																	PSNS124		7	100
	T1212-H	3/20/05 0930	W																	PSNS124		8	70
	T1212 Composite	3/21/05		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	TNE/DOE	ORG		
																				273 274	312		

Relinquished by:

[Signature]
 Signature
 ID Estes
 Printed Name
 Company

3/21/05 0900
 Date Time
 TEC
 Company

Received by:

[Signature] 3/21/05 0900
 Signature Date Time
 Jm Brandenberger Battelle
 Printed Name Company

Total # of Containers

Shipment Method:
 Special Requirements or Conditions:

Sample Disposition:

Distribution:
 1) 2 copies to the Laboratory
 2) 1 copy to project manager
 3) Return completed original to
 Battelle Marine Sciences Laboratory

Relinquished by:

Signature Date Time
 Printed Name Company

Received by:

Signature Date Time
 Printed Name Company

SAMPLE CHAIN OF CUSTODY FORM

Date: 3/21/05
 Page: 7 of 8
 COC Number: _____

Battelle

Marine Sciences Laboratory
 1529 West Sequim Bay Road
 Sequim, Washington 98382

Project No.: 43043

Project Name: TMDL in Sinclair & Dyes Inlets

Project Manager: Martin C. Miller

Phone: (360) 681-3668

As Per Table 2-1 in QAPP

Laboratory: Battelle MSL

Address: 1529 W. Sequim Bay Road
 Sequim, WA 98382

Attention: Jill Brandenberger

Observations, Instructions

Lab. Use only: Lab ID	Sample ID	Collection Date/Time	Matrix	Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISST	Nitrate+Nitrite	Total Phosphorus	TKN	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics	No. of containers	StationID	Storm#	Jar#	%Full
	T1213-A	3/19/05 1227	W																	PSNS126	2005Mar1912	1	100
	T1213-B	3/19/05 1527	W																	PSNS126		2	100
	T1213-C	3/19/05 1827	W																	PSNS126		3	95
	T1213-D	3/19/05 2127	W																	PSNS126		4	100
	T1213-E	3/20/05 0027	W																	PSNS126		5	100
	T1213-F	3/20/05 0327	W																	PSNS126		6	100
	T1213-G	3/20/05 0627	W																	PSNS126		7	100
	T1213-H	3/20/05 0927	W																	PSNS126		8	60 ~~85~~
	T1213 composite	3/21/05		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	TIME/pme	ORC		
																				275/276	313		

Relinquished by: [Signature] 3/21/05 0900
 Signature Date Time
J. S. ESTEC TEC
 Printed Name Company

Received by: [Signature] 3/21/05 0900
 Signature Date Time
Jm Brandenberger Battelle
 Printed Name Company

Total # of Containers
 Shipment Method:
 Special Requirements or Conditions:
 Sample Disposition:

Relinquished by:
 Signature Date Time
 Printed Name Company

Received by:
 Signature Date Time
 Printed Name Company

Distribution:
 1) 2 copies to the Laboratory
 2) 1 copy to project manager
 3) Return completed original to
 Battelle Marine Sciences Laboratory

Date: 3/21/05

Page: 1 of 8

COC Number: _____

**Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382**

Observations, Instructions

Not required
JMS 3/22/08

Battelle Marine Sciences Laboratory

Date: 3/21/05
Page: 2 of 8
COC Number:

**Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382**

Page 152 of 224

Date: 3/21/05
Page: 8 of 8
COC Number: _____

**Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382**

Project No.: 43043						As Per Table 2-1 in QAPP																		Laboratory: Battelle MSL Address: 1529 W. Sequim Bay Road Sequim, WA 98382 Attention: Jill Brandenberge																								
Project Name: TMDL in Sinclair & Dyes Inlets																								Testing Parameters																		Observations, Instruction:						
Project Manager: Martin C. Miller																																																
Phone: (360) 681-3666																																																
Lab. Use only: Lab ID		Sample ID		Collection Date/Time		Matrix		Alkalinity		Hardness		Total Solids		Total Suspended Solids		LISST		Nitrate+Nitrite		Total Phosphorus		TKN		Ammonia		TOC		DOC		Total Metals		Dissolved Metals		Total Mercury		Organics		No. of containers		StationID		Storm#		Jar# ~~Grab#~~		%Full		
		T1221-A		3/19/05 1318		W																																B-ST12		2005 Mar #2		1		80				
		T1221-B		3/19/05 1618		W																																B-ST12				2		100				
		T1221-C		3/19/05 1918		W																																B-ST12				3		100				
		T1221-D		3/19/05 2218		W																																B-ST12				4		100				
		T1221-E		3/20/05 0218		W																																B-ST12				5		100				
		T1221-F		3/20/05 0418		W																																B-ST12				6		100				
		T1221-G		3/20/05 0818		W																																B-ST12				7		100				
		T1221-H		3/20/05 1018		W																																B-ST12				8		90				
		T1221 Comp		3/21/05				X		X		X		X		X		X		X		X		X		X		X		X		X		X		X		X		X		X		X				
Relinquished by: [Signature] 3/21/05 0900 JD Estes Printed Name Company						Received by: [Signature] 3/21/05 0900 Jill Brandenberge Printed Name Company																		Total # of Containers Shipment Method: Special Requirements or Conditions: Sample Disposition:																								
Relinquished by: Signature Date Time Printed Name Company						Received by: Signature Date Time Printed Name Company																		Distribution: 1) 2 copies to the Laboratory 2) 1 copy to project manager 3) Return completed original to Battelle Marine Sciences Laboratory																								

SAMPLE CHAIN OF CUSTODY FORM

Date: _____
 Page: 1 of 1
 COC Number: _____

Battelle

Marine Sciences Laboratory
 1529 West Sequim Bay Road
 Sequim, Washington 98382

Project No.: 43043 Project Name: TMDL in Sinclair & Dyes Inlets Project Manager: Martin C. Miller Phone: (360) 681-3668	Analyze parameters per Table 2-1 in ENVVEST QAPP <i>Cooler Temp = 6.0°C</i>	Laboratory: Battelle MSL Address: 1529 W. Sequim Bay Road Sequim, WA 98382 Attention: Jill Brandenberger
Group: Karcher WWTP Event: ENVVEST Storm Sampling FY05	Testing Parameters	Observations, Instructions

Lab. Use only: Lab ID	Sample ID	Collection Date/Time	Matrix	Testing Parameters																	Observations, Instructions			
				Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISST	Nitrate+Nitrite	Total Phosphorus	TKN	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics	grab	No. of containers	StationID	Storm#	Jar#	% Full
	G1210-A	3/19/05 01300	H2O														x		1	KAR-WWTP	#2 Sinclair		95	
	G1210-B	3/19/05 1600	H2O														x		1	KAR-WWTP	#2 Sinclair		95	
	G1210-C	3/19/05 1600	H2O														x		1	KAR-WWTP	#2 Sinclair		95	
Composite	G1210	3/21/05		X	X	X	X	X	X	X	X	X	X	X	X	X				TIME/DME				
																				283/284				

Date: 3/21/05
Page: 1 of 3
COC Number:

Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382

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Date: 3/21/05
Page: 2 of 3
COC Number:

Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382

2005 Storm Water Data Report

Date: 3/21/05
Page: 3 of 3
COC Number:

Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382

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SAMPLE CHAIN OF CUSTODY FORM

Date: 3/26/05
 Page: 1 of 1
 COC Number: _____

G1210 was duplicated - changed to G1220
 (discovered in data reporting; collection dates separate the duplicate IDs)

Battelle
 Marine Sciences Laboratory
 1529 West Sequim Bay Road
 Sequim, Washington 98382

Project No.: 43043

Project Name: TMDL in Sinclair & Dyes Inlets

Project Manager: Martin C. Miller

Phone: (360) 681-3668

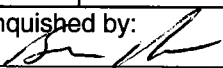
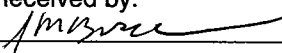
Laboratory: Battelle MSL
 Address: 1529 W. Sequim Bay Road
 Sequim, WA 98382

Attention: Jill Brandenberger

Lab. Use only: Lab ID	Sample ID	Collection Date/Time	Matrix	Testing Parameters																	No. of containers	Observations, Instructions				
				Alkalinity	Hardness	Total Solids	Total Suspended Solids	ESST	Nitrate+Nitrite	Total Phosphorus	TKN	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics	Station ID	Storm#		Grab#	Estimated Flow (CFS)			
	G1210 composite			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			KAR-VWTP	17-Jan-05		
				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			KAR-VWTP	17-Jan-05		
				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			KAR-VWTP	17-Jan-05		
	G1210-A	3/26/05 0800																					KAR-VWTP	23-Mar-05	#1	2.89 CFS
	G1210-B	3/26/05 1100																					KAR-VWTP	23-Mar-05	#2	5.23 CFS
	G1210-C	3/26/05 1500																					KAR-VWTP	23-Mar-05	#3	4.80 CFS

Date: 3/27/05
Page: 5 of 7
COC Number: _____

**Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382**

Project No.: 43043						As Per Table 2-1 in QAPP																		Laboratory: Battelle MSL																									
Project Name: TMDL in Sinclair & Dyes Inlets																								Address: 1529 W. Sequim Bay Road Sequim, WA 98382																									
Project Manager: Martin C. Miller																								Attention: Jill Brandenberger																									
Phone: (360) 681-3666																								Observations, Instruction:																									
Lab. Use only: Lab ID		Sample ID		Collection Date/Time		Matrix		Testing Parameters																																									
								Alkalinity		Hardness		Total Solids		Total Suspended Solids		LISST		Nitrate+Nitrite		Total Phosphorus		TKN		Ammonia		TOC		DOC		Total Metals		Dissolved Metals		Total Mercury		Organics		<i>Pesticides</i>		No. of containers		StationID		Storm#		Jar#		%Full	
		T1305-A		3/26/05 0140		W																																SW6		2005MAR26		1		100					
		T1305-B		3/26/05 0440		W																														SW6				2									
		T1305-C		3/26/05 0740		W																														SW6				3									
		T1305-D		3/26/05 1040		W																														SW6				4									
		T1305-E		3/26/05 1340		W																														SW6				5									
		T1305-F		3/26/05 1640		W																														SW6				6									
		~~T1305-G~~				~~W~~																														~~SW6~~				~~7~~		~~X~~							
		~~T1305-H~~				~~W~~																														~~SW6~~				~~8~~		~~X~~							
		COMPOSITE T1305				W		x		x		x		x		x		x		x		x		x		x		x		x		x		x		The		The		ORG									
Relinquished by:  3/27/05 1245						Received by:  3/27/05 1245																		Total # of Containers																									
Signature _____ Printed Name _____ Company _____						Signature _____ Printed Name _____ Company _____																		Shipment Method:																									
																								Special Requirements or Conditions:																									
Relinquished by:						Received by:																		Sample Disposition:																									
Signature _____ Date _____ Time _____						Signature _____ Date _____ Time _____																		Distribution:																									
Printed Name _____ Company _____						Printed Name _____ Company _____																		1) 2 copies to the Laboratory																									
																								2) 1 copy to project manager																									
																								3) Return completed original to Battelle Marine Sciences Laboratory																									

Date: 3/27/05
Page: 6 of 7
COC Number: _____

**Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382**

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Date: 3/27/05
Page: 1 of 7
COC Number: _____

Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382

Project No.: 43043			As Per Table 2-1 in QAPP															Sequim, Washington 98382						
Project Name: TMDL in Sinclair & Dyes Inlets																		Laboratory: Battelle MSL						
Project Manager: Martin C. Miller																		Address: 1529 W. Sequim Bay Road Sequim, WA 98382						
Phone: (360) 681-3666			Testing Parameters															Attention: Jill Brandenberge						
																		Observations, Instruction:						
Lab. Use only: Lab ID	Sample ID	Collection Date/Time	Matrix	Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISST	Nitrate+Nitrite	Total Phosphorus	TKN	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics	Pesticides	No. of containers	Station ID	Storm#	Jar#	%Full
	T1301-A	3/26/05 0142	W																	1	BA	2005 MAR 26	1	100
	T1301-B	3/26/05 0742	W																	1	BA	↓	2	100
	T1301-C	3/26/05 1342	W																	1	BA	↓	3	75
	~~T1301-D~~		~~W~~																	~~1~~	~~BA~~		~~4~~	NA
	Composite T1301	3/27/05		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		THE 327	DNE 328	ORG 380	
Relinquished by:				Received by:															Total # of Containers					
Signature: <i>Brian Rupert</i>				Signature: <i>Jm Brandenberge</i>															Shipment Method:					
Date: 3/27/05				Date: 3/27/05															Special Requirements or Conditions:					
Time: 1245				Time: 1245															Sample Disposition:					
Printed Name: Brian Rupert				Printed Name: Jm Brandenberge															Distribution:					
Company: TEC				Company: Battelle															1) 2 copies to the Laboratory					
Relinquished by:				Received by:															2) 1 copy to project manager					
Signature:				Signature:															3) Return completed original to					
Date:				Date:															Battelle Marine Sciences Laboratory					
Time:				Time:																				
Printed Name:				Printed Name:																				
Company:				Company:																				

SAMPLE CHAIN OF CUSTODY FORM

 Date: 3/27/05

 Page: 2 of 7

COC Number: _____

Battelle

 Marine Sciences Laboratory
 1529 West Sequim Bay Road
 Sequim, Washington 98382

Project No.: 43043

Project Name: TMDL in Sinclair & Dyes Inlets

Project Manager: Martin C. Millei

Phone: (360) 681-3668

As Per Table 2-1 in QAPP

Laboratory: Battelle MSL

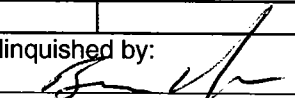
 Address: 1529 W. Sequim Bay Road
 Sequim, WA 98382

Attention: Jill Brandenberge

Observations, Instruction:

Lab. Use only: Lab ID	Sample ID	Collection Date/Time	Matrix	Testing Parameters																No. of containers				
				Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISST	Nitrate+Nitrite	Total Phosphorus	TKN	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics	Pesticides		StationID	Storm#	Jar#	%Full
	T1302-A	3/26/05 0133	W																	1	CC	2005MAR26	1	100
	T1302-B	3/26/05 0733	W																	1	CC		2	
	T1302-C	3/26/05 1333	W																	1	CC		3	
	T1302-D	3/26/05 1933	W																	1	CC		4	
	T1302-E	3/27/05 0133	W																	1	CC		5	
	Composite T1302			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		THE 329	DKE 330	ORL 382	

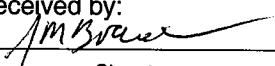
Relinquished by:


 Signature: Brian Rupert Date: 3/27/05 Time: 1245
 Printed Name: Brian Rupert Company: TEC

Relinquished by:

Signature: _____ Date: _____ Time: _____
 Printed Name: _____ Company: _____

Received by:


 Signature: Jill Brandenberge Date: 3/27/05 Time: 1245
 Printed Name: Jill Brandenberge Company: Battelle

Received by:

Signature: _____ Date: _____ Time: _____
 Printed Name: _____ Company: _____

Total # of Containers

Shipment Method:

Special Requirements or Conditions:

Sample Disposition:

Distribution:

- 1) 2 copies to the Laboratory
- 2) 1 copy to project manager
- 3) Return completed original to Battelle Marine Sciences Laboratory

Date: 3/27/05
Page: 3 of 7
COC Number:

Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382

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SAMPLE CHAIN OF CUSTODY FORM

Date: 3/27/05
 Page: 4 of 7
 COC Number: _____

Battelle

Marine Sciences Laboratory
 1529 West Sequim Bay Road
 Sequim, Washington 98382

Project No.: 43043 Project Name: TMDL in Sinclair & Dyes Inlets Project Manager: Martin C. Miller Phone: (360) 681-3666				<u>As Per Table 2-1 in QAPP</u>														Laboratory: Battelle MSL Address: 1529 W. Sequim Bay Road Sequim, WA 98382 Attention: Jill Brandenberge						
				Testing Parameters														Observations, Instruction:						
Lab. Use only: Lab ID	Sample ID	Collection Date/Time	Matrix	Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISST	Nitrate+Nitrite	Total Phosphorus	TKN	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics	PESTICIDES	No. of containers	StationID	Storm#	Jar#	%Full
	T1304-A	3/26/05 0056	W																	1	CH	2005 MAR 26	1	100
	T1304-B	3/26/05 0105	W																	1	CH		2	
	T1304-C	3/26/05 1256	W																	1	CH		3	
	T1304-D	3/26/05 1856	W																	1	CH		4	
	T1304-E	3/27/05 0056	W																	1	CH		5	
	Composite																							
	T1304	3/27/05		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
Relinquished by: <u>Brian Rupert</u> <u>3/27/05</u> <u>1245</u> Signature Date Time Printed Name Company				Received by: <u>Jill Brandenberge</u> <u>3/27/05</u> <u>1245</u> Signature Date Time Printed Name Company														Total # of Containers Shipment Method: Special Requirements or Conditions: Sample Disposition: Distribution: 1) 2 copies to the Laboratory 2) 1 copy to project manager 3) Return completed original to Battelle Marine Sciences Laboratory						

Date: 3/27/05
Page: 7 of 7
COC Number:

Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382

Project No.: 43043				As Per Table 2-1 in QAPP														Laboratory: Battelle MSL																																	
Project Name: TMDL in Sinclair & Dyes Inlet																		Address: 1529 W. Sequim Bay Road Sequim, WA 98382																																	
Project Manager: Martin C. Miller																		Attention: Jill Brandenberger																																	
Phone: (360) 681-3666																		Observations, Instruction:																																	
Lab. Use only: Lab ID		Sample ID		Collection Date/Time		Matrix		Testing Parameters														Observations, Instruction:																													
								Alkalinity		Hardness		Total Solids		Total Suspended Solids		LISST		Nitrate+Nitrite		Total Phosphorus		TKN		Ammonia		TOC		DOC		Total Metals		Dissolved Metals		Total Mercury		Organics		Pesticides		No. of containers		Station ID		Storm#		Grab#		Time		Dmf	
		T-1307-A		3/26/05 0115		W		X		X		X		X		X										X		X		X		X						1		B-ST01		2005 MAR 26		1		337		335			
		T-1307-B		3/26/05 0945		W		X		X		X		X		X										X		X		X		X						1		B-ST01		↓		2		339		340			
		T-1307-C		3/26/05 1845		W		X		X		X		X		X										X		X		X		X						1		B-ST01		↓		3		341		342			
		Composite T-1307		3/27/05														X		X		X		X								X		X		X								ORG 389		Hg 371					

Date: 3/28/2005
Page: 1 of 1

**Marine Sciences Laboratory
1529 W. Sequim Bay Road
Sequim, Washington 98382**

Address:

Attention: Stewart Magoon

Observations, Instructions

Phone: (360) 681-3668

Cooler # _____ of _____

Sample ID	Collection Date	Collection Time	Matrix	Testing Parameters															Observations, Instructions		
				Alkalinity	Hardness	Total Solids	Total Suspended Solids	O-Phosphate	BOD	TPH	LISST	Nitrate+Nitrite	Total Phosphorus	TKN	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Pesticides	No. of containers
T1305	3/26/2005	140	fresh water															x	2	SW6	
T1306	3/26/2005	136	fresh water															x	2	B-ST12	
T1301	3/26/2005	142	fresh water															x	1	BA	
T1302	3/26/2005	133	fresh water															x	3	CC	
T1304	3/26/2005	56	fresh water															x	3	CH	
T1307	3/26/2005	115	fresh water															x	1	B-ST01 (Limited Volume ~2L)	
																			Total # of Containers=		12

Reinquished by: John 3/28/05 1410
Signature Date Time
Jim Brandenburg Battelle
Printed Name Company

Relinquished by:		
Signature	Date	Time
Printed Name	Company	

Received by: Chuck Whitney 3/28/05
Signature Date Time 1413
Printed Name Company

Received by:		
Signature	Date	Time
Printed Name	Company	

- 1) 2 copies to the Laboratory
- 2) 1 copy to project manager
- 3) Return completed original to
Battelle Marine Sciences Laboratory

Project No.: 43043

Project Name: TMDL in Sinclair & Dyes Inlets

Date:

Sample Team: Whitney, Walpole, Beckwith (PSNS)

Analyze parameters per Table 2-1 in ENVVEST QAPP

Laboratory: Battelle MSL

Address: 1529 W. Sequim Bay Road

Observations, Instructions

Lab. Use only: Lab ID	Sample ID	DATE	TIME	Matrix	Alkalinity	Hardness	Total Solids	Total Suspended Solids	USST	Nitrate+Nitrite	Total Phosphorus	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics	NUTRIENTS	Hg	OSAL (ocean Salinity)	No. of Battelle containers	StationID	Storm#	Jar#	% Full
	M4250	03/28/2005	6:53:00 AM	H2O									x	x	x							1	P3	2005ENV04		95
	M4250SAL	03/28/2005	6:53:00 AM	H2O																	x	1	P3	2005ENV04		95
	M4251	03/28/2005	6:37:00 AM	H2O									x	x	x							1	P2	2005ENV04		95
	M4251SAL	03/28/2005	6:37:00 AM	H2O																	x	1	P2	2005ENV04		95
	M4252	03/28/2005	7:21:00 AM	H2O									x	x	x							1	P1	2005ENV04		95
	M4252SAL	03/28/2005	7:21:00 AM	H2O																	x	1	P1	2005ENV04		95
	M4253	03/28/2005	8:14:00 AM	H2O									x	x	x							1	M4	2005ENV04		95
	M4253NUTSHG	03/28/2005	8:14:00 AM	H2O															x	x		1	M4	2005ENV04		95
	M4253SAL	03/28/2005	8:14:00 AM	H2O																	x	1	M4	2005ENV04		95
	M4254	03/28/2005	8:57:00 AM	H2O									x	x	x							1	M3.3	2005ENV04		95
	M4254SAL	03/28/2005	8:57:00 AM	H2O																	x	1	M3.3	2005ENV04		95
	M4255	03/28/2005	9:10:00 AM	H2O									x	x	x							1	SN12	2005ENV04		95
	M4255SAL	03/28/2005	9:10:00 AM	H2O																	x	1	SN12	2005ENV04		95
	M4256	03/28/2005	9:22:00 AM	H2O									x	x	x							1	BJ-EST	2005ENV04		95
	M4256SAL	03/28/2005	9:22:00 AM	H2O																	x	1	BJ-EST	2005ENV04		95
	M4257	03/28/2005	9:42:00 AM	H2O									x	x	x							1	M3.1	2005ENV04		95
	M4257NUTSHG	03/28/2005	9:42:00 AM	H2O															x	x		1	M3.1	2005ENV04		95
	M4257SAL	03/28/2005	9:42:00 AM	H2O																	x	1	M3.1	2005ENV04		95
	M4258	03/28/2005	9:42:00 AM	H2O									x	x	x							1	M3.1 DUP	2005ENV04		95
	M4258NUTSHG	03/28/2005	9:42:00 AM	H2O															x	x		1	M3.1 DUP	2005ENV04		95
	M4258SAL	03/28/2005	9:42:00 AM	H2O																	x	1	M3.1 DUP	2005ENV04		95
	M4259	03/28/2005	10:57:00 AM	H2O									x	x	x							1	M6	2005ENV04		95
	M4259SAL	03/28/2005	10:57:00 AM	H2O																	x	1	M6	2005ENV04		95
	M4260	03/28/2005	10:02:00 AM	H2O									x	x	x							1	DY01	2005ENV04		95
	M4260SAL	03/28/2005	10:02:00 AM	H2O																	x	1	DY01	2005ENV04		95
	M4262	03/28/2005	7:54:00 AM	H2O									x	x	x							1	PL10	2005ENV04		95
	M4262SAL	03/28/2005	7:54:00 AM	H2O																	x	1	PL10	2005ENV04		95
	M4263	03/28/2005	8:31:00 AM	H2O									x	x	x							1	PL11	2005ENV04		95
	M4263SAL	03/28/2005	8:31:00 AM	H2O																	x	1	PL11	2005ENV04		95
	M4264	03/28/2005	8:46:00 AM	H2O									x	x	x							1	PL12	2005ENV04		95
	M4264SAL	03/28/2005	8:45:00 AM	H2O																	x	1	PL12	2005ENV04		95

Relinquished by:

Signature

Date

Time

Printed Name

Company

Relinquished by:

Signature

Date

Time

Printed Name

Company

Received by:

Signature

Date

Time

Printed Name

Company

Received by:

Signature

Date

Time

Printed Name

Company

Total # of Containers

30

Shipment Method:

Special Requirements or Conditions:

Sample Disposition:

Distribution:

- 1) 2 copies to the Laboratory
- 2) 1 copy to project manager
- 3) Return completed original to Battelle Marine Sciences Laboratory

Cooler temp = 5.2°C

COC Number:

2005ENV04

CHAIN OF CUSTODY FORM

Page: 2 of 2

Project No.: 43043

Project Name: TMDL in Sinclair & Dyes Inlets

Date:

Sample Team: Whitney, Walpole, Beckwith (PSNS)

Analyze parameters per Table 2-1 in ENVVEST QAPP

Laboratory: Battelle MSL

Address: 1529 W. Sequim Bay Road

Observations, Instructions

Lab. Use only : Lab ID	Sample ID	DATE	TIME	Matrix	Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISS	Nitrate+Nitrite	Total Phosphorus	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics	NUTRIENTS	Hg	OSAL (ocean Salinity)	No. of Battelle containers	StationID	Cruise or Storm#	Jar#	% Full
	M4250-TS	03/28/2005	6:53:00 AM	H2O			x	x														1	P3	2005ENV04		95
	M4251-TS	03/28/2005	6:37:00 AM	H2O			x	x														1	P2	2005ENV04		95
	M4252-TS	03/28/2005	7:21:00 AM	H2O			x	x														1	P1	2005ENV04		95
	M4253-TS	03/28/2005	8:14:00 AM	H2O			x	x														1	M4	2005ENV04		95
	M4254-TS	03/28/2005	8:57:00 AM	H2O			x	x														1	M3.3	2005ENV04		95
	M4255-TS	03/28/2005	9:10:00 AM	H2O			x	x														1	SN12	2005ENV04		95
	M4256-TS	03/28/2005	9:22:00 AM	H2O			x	x														1	BJ-EST	2005ENV04		95
	M4257-TS	03/28/2005	9:42:00 AM	H2O			x	x														1	M3.1	2005ENV04		95
	M4258-TS	03/28/2005	9:42:00 AM	H2O			x	x														1	M3.1DUP	2005ENV04		95
	M4259-TS	03/28/2005	10:57:00 AM	H2O			x	x														1	M6	2005ENV04		95
	M4260-TS	03/28/2005	10:02:00 AM	H2O			x	x														1	DY01	2005ENV04		95
	M4262-TS	03/28/2005	7:54:00 AM	H2O			x	x														1	PL10	2005ENV04		95
	M4263-TS	03/28/2005	8:31:00 AM	H2O			x	x														1	PL11	2005ENV04		95
	M4264-TS	03/28/2005	8:46:00 AM	H2O			x	x														1	PL12	2005ENV04		95

Relinquished by:	Received by:	Total # of Containers
<i>Whitney</i> 3/28/05 1411	<i>Amberger</i> 3/28/05 1411	14
Signature _____ Date _____ Time _____	Signature _____ Date _____ Time _____	Shipment Method:
Printed Name _____ Company _____	Printed Name _____ Company _____	Special Requirements or Conditions:
Relinquished by:	Received by:	Sample Disposition:
Signature _____ Date _____ Time _____	Signature _____ Date _____ Time _____	Distribution:
Printed Name _____ Company _____	Printed Name _____ Company _____	1) 2 copies to the Laboratory
		2) 1 copy to project manager
		3) Return completed original to Battelle Marine Sciences Laboratory

Cooler temp = 3.8°C

SAMPLE CHAIN OF CUSTODY FORM

 Date: 30 March 2005

 Page: 1 of 1

COC Number: _____

Battelle

 Marine Sciences Laboratory
 1529 West Sequim Bay Road
 Sequim, Washington 98382

Project No.: 43043

Project Name: TMDL in Sinclair & Dyes Inlet:

Project Manager: Martin C. Mille

Phone: (360) 681-3666

As Per Table 2-1 in QAPP

Laboratory: Battelle MSI

 Address: 1529 W. Sequim Bay Road
 Sequim, WA 98382

Attention: Jill Brandenberge

Testing Parameters
Observations, Instructions

TIME	DATE	Lab. Use only: Lab ID	Sample ID	Collection Date/Time	Matrix	Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISST	Nitrate+Nitrite	Total Phosphorus	TKN	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics	No. of containers	StationID	Storm#	Isco or Grab	Jar/Grab#	%Full
453	454		T1316-A	3/30/05 1100	W	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	504	BI-SBC	2005mar30WSBS	Isco	1	100
455	456		T1317-A	3/30/05 1110	W	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	505	BA	2005mar30WSBS	Isco	1	100
457	458		T1318-A	3/30/05 1120	W	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	506	CC	2005mar30WSBS	Isco	1	100
459	460		T1319-A	3/30/05 1110	W	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	507	SC	2005mar30WSBS	Isco	1	100
461	462		T1320-A	3/30/05 1110	W	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	508	CH	2005mar30WSBS	Isco	1	100
463	464		T1321-A	3/30/05 1110	W	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	509	SW6	2005mar30WSBS	Isco	1	100
			T1321-B	3/30/05 1410	W	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	510	SW6	2005mar30WSBS	Isco	2	100
465	466		T1322-A	3/30/05 1110	W	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	511	B-ST12	2005mar30WSBS	Isco	1	100
			T1322-B	3/30/05 1410	W	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	511	B-ST12	2005mar30WSBS	Isco	2	100
467	468		T1323-A	3/30/05 1400	W	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	511	B-ST01	2005mar30WSBS	Grab	1	100
469	470		T1324-A	3/30/05 1335	W	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		GC-SAN	2005mar30WSBS	Grab	1	100
471	472		T1325-A	3/30/05 1305	W	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		BL	2005mar30WSBS	Grab	1	100
473	474		T1326-A	3/30/05 1300	W	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		OC	2005mar30WSBS	Grab	1	100

Relinquished by:

3/31/05 1930

Received by:

3/31/05 1930

Total # of Containers

Shipment Method:

Special Requirements or Conditions:

Sample Disposition:

Distribution:

- 1) 2 copies to the Laboratory
- 2) 1 copy to project manager
- 3) Return completed original to Battelle Marine Sciences Laboratory

 Signature: ID Estes
 Printed Name: _____

 Date: _____
 Time: _____
 Company: _____

 Signature: Jill Brandenberge
 Printed Name: _____
 Date: _____
 Time: _____
 Company: _____

Relinquished by:

Received by:

 Signature: _____
 Printed Name: _____
 Date: _____
 Time: _____
 Company: _____

 Signature: _____
 Printed Name: _____
 Date: _____
 Time: _____
 Company: _____

Date: _____
Page: 1 of 1
COC Number: _____

Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382

Date: _____
Page: _____ of _____
COC Number: _____

**Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382**

Phone: (360) 681-3668

Cooler Temp = 4.8°C

Address: 1529 W. Sequim Bay Road
Sequim, WA 98382

Attention: Jill Brandenberger

Observations, Instructions
1. The first row of the table is the header row. It contains the following information: - Column 1: "Date" - Column 2: "Time" - Column 3: "Location" - Column 4: "Weather" - Column 5: "Wind Speed" - Column 6: "Wave Height" - Column 7: "Current Speed" - Column 8: "Current Direction" - Column 9: "Tide Level" - Column 10: "Water Temperature" - Column 11: "Air Temperature" - Column 12: "Humidity" - Column 13: "Pressure" - Column 14: "Visibility" - Column 15: "Cloud Cover" - Column 16: "Moon Phase" - Column 17: "Star Position" - Column 18: "Compass Reading" - Column 19: "Bearing" - Column 20: "Distance" - Column 21: "Speed" - Column 22: "Altitude" - Column 23: "Depth" - Column 24: "Width" - Column 25: "Height" - Column 26: "Length" - Column 27: "Area" - Column 28: "Volume" - Column 29: "Mass" - Column 30: "Density" - Column 31: "Pressure" - Column 32: "Temperature" - Column 33: "Humidity" - Column 34: "Pressure" - Column 35: "Temperature" - Column 36: "Humidity" - Column 37: "Pressure" - Column 38: "Temperature" - Column 39: "Humidity" - Column 40: "Pressure" - 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Column 277: "Pressure" - Column 278: "Temperature" - Column 279: "Humidity" - Column 280: "Pressure" - Column 281: "Temperature" - Column 282: "Humidity" - Column 283: "Pressure" - Column 284: "Temperature" - Column 285: "Humidity" - Column 286: "Pressure" - Column 287: "Temperature" - Column 288: "Humidity" - Column

Lab. Use only Lab ID		Sample ID	Collection Date/Time	Matrix	Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISST	Nitrate+Nitrite	Total Phosphorus	TKN	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics	No. of containers	StationID	Storm#	Grab#	Estimated Flow (CFS)
			3/30/05 0830		X	X	X	X	X	X	X	X	X	X	X	X	X	X			KAR-WWTP	17-Jan-05	1	3.50 CFS
					X	X	X	X	X	X	X	X	X	X	X	X	X	X			KAR-WWTP	17-Jan-05		
					X	X	X	X	X	X	X	X	X	X	X	X	X	X			KAR-WWTP	17-Jan-05		
		G1201-A	3/30/05 0830																		KAR-WWTP	30-Mar-05	#1	3.50 CFS
		G1201-B	3/30/05 1200																		KAR-WWTP	30-Mar-05	#2	3.64 CFS
		G1201-C	3/30/05 1500																		KAR-WWTP	30-Mar-05	#3	3.41 CFS
		G1210-A-1	3/31/05 0800																		KAR-WWTP	31-Mar-05	#1	
		G1210-B-2	3/31/05																		KAR-WWTP	31-Mar-05	#2	
		G1210-C-3	3/31/05																		KAR-WWTP	31-Mar-05	#3	
		Composite G1201			X	X	X	X	X	X	X	X	X	X	X	X	X	X			TME	OME		
																					481	482		

Relinquished by:

Received by:

Total # of Containers	
-----------------------	--

Shipment Method:

Special Requirements or Conditions:

Sample Disposition:

Distribution:

- 1) 2 copies to the Laboratory
- 2) 1 copy to project manager
- 3) Return completed original to Battelle Marine Sciences Laboratory

Signature Bryan Gallagher Date 1/17/00 Time 1:00
Printed Name Bryan Gallagher Company Karcher Creek

Signature *Vicki Whitely* Date *3/31/05* Time *11:00*
Printed Name *Vicki Whitely* Company *BSNS*

Relinquished by: _____

Signature	Date	Time
_____	_____	_____
Printed Name	Company	

Received by: Jim Bardenberger 3/31/05 1930
Signature Date Time
Printed Name Company

Date: 4/2/05
Page: 1 of 8
COC Number:

Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382

Page 172 of 224

Date: 4/2/05
Page: 2 of 8
COC Number: _____

**Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382**

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Date: 4/2/05
Page: 3 of 8
COC Number: _____

Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382

Page 174 of 224

Date: 4/2/05
Page: 4 of 8
COC Number: _____

**Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382**

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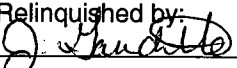
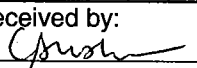
Date: 4/2/05
Page: 5 of 8
COC Number:

Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382

Project No.: 43043				As Per Table 2-1 in QAPP														Laboratory: Battelle MSL																	
Project Name: TMDL in Sinclair & Dyes Inlets																		Address: 1529 W. Sequim Bay Road																	
Project Manager: Martin C. Miller																		Sequim, WA 98382																	
Phone: (360) 681-3666				Testing Parameters														Observations, Instruction:																	
Lab. Use only: Lab ID	Sample ID	Collection Date/Time	Matrix	Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISST	Nitrate+Nitrite	Total Phosphorus	TKN	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics			No. of containers	StationID	Storm#	Jar#	%Full										
	T1312-A	3/31/05 1819	W																		1	CH	2005Mar312	1	100										
	T1312-B	4/1/05 0619	W																		1	CH		2	100										
	T1312-C	4/1/05 0619	W																		1	CH		3	70										
	T1312-D		W																			CH		4											
	composite T1312					X	X	X	X	X	X	X	X	X	X	X	X	X				IME 403	DME 404												
Relinquished by: J. Gaudette Signature J. Gaudette Printed Name				Date 4/1/05 TEC Company				Time 1500				Received by: C. Suslick Signature C. Suslick Printed Name				Date 4/1/05 MSL Company				Time 1500				Total # of Containers											
Relinquished by:				Signature				Date				Time				Received by:				Signature				Date				Time				Shipment Method:			
Relinquished by:				Signature				Date				Time				Received by:				Signature				Date				Time				Special Requirements or Conditions:			
Relinquished by:				Signature				Date				Time				Received by:				Signature				Date				Time				Sample Disposition:			
Relinquished by:				Signature				Date				Time				Received by:				Signature				Date				Time				Distribution:			
Relinquished by:				Signature				Date				Time				Received by:				Signature				Date				Time				1) 2 copies to the Laboratory			
Relinquished by:				Signature				Date				Time				Received by:				Signature				Date				Time				2) 1 copy to project manager			
Relinquished by:				Signature				Date				Time				Received by:				Signature				Date				Time				3) Return completed original to			
Relinquished by:				Signature				Date				Time				Received by:				Signature				Date				Time				Battelle Marine Sciences Laboratory			

Date: 4/2/05
Page: 6 of 8
COC Number: _____

Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382

Project No.: 43043			As Per Table 2-1 in QAPP															Laboratory: Battelle MSL						
Project Name: TMDL in Sinclair & Dyes Inlets																		Address: 1529 W. Sequim Bay Road Sequim, WA 98382						
Project Manager: Martin C. Miller																		Attention: Jill Brandenberge						
Phone: (360) 681-3666			Testing Parameters															Observations, Instruction:						
Lab. Use only: Lab ID	Sample ID	Collection Date/Time	Matrix	Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISST	Nitrate+Nitrite	Total Phosphorus	TKN	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics	No. of containers	Station ID	Storm#	Jar#	%Full	
	T1313-A	3/31/05 2036	W																	1	SW6	2005 Mar 31	1	100
	T1313-B	3/31/05 2336	W																	1	SW6		2	100
	T1313-C	4/1/05 0236	W																	1	SW6		3	100
	T1313-D	4/1/05 0536	W																	1	SW6		4	100
	T1313-E	4/1/05 0836	W																	1	SW6		5	100
	~~T1313-F~~		~~W~~																		~~SW6~~		~~6~~	
	~~T1313-G~~		~~W~~																		~~SW6~~		~~7~~	
	~~T1313-H~~		~~W~~																		~~SW6~~		~~8~~	
	Composite																							
	T1313			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		IME	IME	ORG	
																					391	392	445	
Relinquished by:				Received by:															Total # of Containers					
																			Shipment Method:					
Signature Date Time				Signature Date Time															Special Requirements or Conditions:					
J. Gaudette TEC				C. Sullivan MSL																				
Printed Name Company				Printed Name Company															Sample Disposition:					
Relinquished by:				Received by:															Distribution:					
Signature Date Time				Signature Date Time															1) 2 copies to the Laboratory					
Printed Name Company				Printed Name Company															2) 1 copy to project manager					
																			3) Return completed original to					
																			Battelle Marine Sciences Laboratory					

SAMPLE CHAIN OF CUSTODY FORM

Date: 4/12/05
 Page: 7 of 8
 COC Number: _____

Battelle

Marine Sciences Laboratory
 1529 West Sequim Bay Road
 Sequim, Washington 98382

Project No.: 43043	<u>As Per Table 2-1 in QAPP</u>	Laboratory: Battelle MSL
Project Name: TMDL in Sinclair & Dyes Inlets		Address: 1529 W. Sequim Bay Road Sequim, WA 98382
Project Manager: Martin C. Miller		Attention: Jill Brandenberge
Phone: (360) 681-3668	Testing Parameters	Observations, Instruction:

Lab. Use only: Lab ID	Sample ID	Collection Date/Time	Matrix	Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISST	Nitrate+Nitrite	Total Phosphorus	TKN	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics		No. of containers	Station ID	Storm#	Jar#	%Full
	T1314-A	3/31/05 1907	W																	1	B-ST12	2005 Mar 31 2	1	100
	T1314-B	3/31/05 2207	W																	1	B-ST12		2	100
	T1314-C	4/1/05 0107	W																	1	B-ST12		3	100
	T1314-D	4/1/05 0407	W																	1	B-ST12		4	95
	T1314-E	4/1/05 0707	W																	1	B-ST12		5	80
	~~T1314-F~~		~~W~~																		~~B-ST12~~		~~6~~	
	~~T1314-G~~		~~W~~																		~~B-ST12~~		~~7~~	
	~~T1314-H~~		~~W~~																		~~B-ST12~~		~~8~~	
	Composite																							
	T1314			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		TME	DME	ORG	
																					393	394	446	

Relinquished by: <u>J. Gaudette</u> Signature: <u>J. Gaudette</u> Date: <u>4/1/05</u> Time: <u>1500</u> Printed Name: _____ Company: _____	Received by: <u>C. Sullivan</u> Signature: <u>C. Sullivan</u> Date: <u>4/1/05</u> Time: <u>1500</u> Printed Name: _____ Company: <u>MSL</u>	Total # of Containers: _____ Shipment Method: _____ Special Requirements or Conditions: _____ Sample Disposition: _____
Relinquished by: _____ Signature: _____ Date: _____ Time: _____ Printed Name: _____ Company: _____	Received by: _____ Signature: _____ Date: _____ Time: _____ Printed Name: _____ Company: _____	Distribution: 1) 2 copies to the Laboratory 2) 1 copy to project manager 3) Return completed original to Battelle Marine Sciences Laboratory

Date: 4/2/05
Page: 8 of 8
COC Number: _____

Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382

Project No.: 43043			As Per Table 2-1 in QAPP															Laboratory: Battelle MSL								
Project Name: TMDL in Sinclair & Dyes Inlets																		Address: 1529 W. Sequim Bay Road								
Project Manager: Martin C. Miller																		Sequim, WA 98382								
Phone: (360) 681-3668			Testing Parameters															Observations, Instructions:								
Lab. Use only: Lab ID	Sample ID	Collection Date/Time	Matrix	Alkalinity	Hardness	Total Solids	Total Suspended Solids	LISSST	Nitrate+Nitrite	Total Phosphorus	TKN	Ammonia	TOC	DOC	Total Metals	Dissolved Metals	Total Mercury	Organics	PEST	No. of containers	Station ID	Storm#	Grab#	TIME	DME	
	T1315-A	3/31/05 1750	W	X	X	X	X	X					X	X	X	X					1	B-ST01	2005 Mar 31	1	405	406
	T1315-B	4/1/05 0030	W	X	X	X	X	X					X	X	X	X					1	B-ST01	↓	2	407	408
	T1315-C	4/1/05 0955	W	X	X	X	X	X					X	X	X	X					1	B-ST01	↓	3	409	410
	Composite T1315									X	X	X	X				X	X	X			Hg 401	ORG 452			
Relinquished by: J. Gaudette				Received by: C. Suslik																	Total # of Containers					
Signature: J. Gaudette				Signature: C. Suslik																	Shipment Method:					
Date: 4/1/05				Date: 4.1.05																	Special Requirements or Conditions:					
Time: 1500				Time: 1500																	Sample Disposition:					
TEC				MSC																	Distribution:					
Printed Name: J. Gaudette				Printed Name: C. Suslik																	1) 2 copies to the Laboratory					
Company:				Company:																	2) 1 copy to project manager					
Relinquished by:				Received by:																	3) Return completed original to Battelle Marine Sciences Laboratory					
Signature:				Signature:																						
Date:				Date:																						
Time:				Time:																						
Printed Name:				Printed Name:																						
Company:				Company:																						

Date: 4/11/05
Page: 1 of 1
COC Number: _____

Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382

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LOG-IN CHECKLIST

FY05 SD Inlet Storms Equipment Blanks

Reference SOP# MSL-A-001

Central File #: New 2318 Sample No(s): 1 and 3Project Manager: JMB

TO BE COMPLETED BY PROJECT MANAGER (prior to arrival when possible)

Matrix: waterWP# F55746

- | | | |
|-------------------------------------|-------------------------------------|---|
| Yes | No | |
| ☐ | ☒ | Navy-type Project (requires high-level sample tracking procedures) |
| ☒ | ☐ | Filter Samples: <u>Amount:</u> <u>Entire sample</u> <u>Half of sample</u> |
| ☐ | ☒ | Freeze dry sample(s) - samples will be weighed and placed in ultralow temp freezer (Lab# 130) |
| ☒ | ☐ | Special instructions: <u>composite and aliquot for ORG/MET</u> |

Sample Preservation Instructions:

MET = 0.2% HNO₃

Date To Archive: _____

Date To Dispose: _____

TO BE COMPLETED UPON SAMPLE ARRIVAL/LOG-IN

- | Yes | No | N/A | Indicate in Appropriate Box |
|-------------------------------------|--------------------------|-------------------------------------|---|
| ☐ | ☐ | ☒ | Was a custody seal present? |
| ☐ | ☐ | ☒ | Was the custody seal intact? |
| ☒ | ☐ | ☐ | Was cooler(s) temperature(s) within acceptable range of $4 \pm 2^\circ\text{C}$? <u>4.2</u> °C
(if multiple coolers, note temp. of each) _____ °C |
| ☐ | ☐ | ☒ | Was Project Manager notified of any custody/login discrepancies (cooler temp, sponsor codes, etc)?
Comment/Remedy: _____ |
| ☒ | ☐ | ☐ | Were <u>all</u> chain of custody forms signed and dated? |
| ☒ | ☐ | ☐ | Were samples filtered at MSL? |

Sample condition(s):

Acceptable

Other (explain): _____

Container type:

Teflon

Poly

Glass

Spex

Other: _____

Notes: _____

Completed By: JMBDate/Time: 12/3/04 1630

SAMPLE PRESERVATION

- | | |
|-------------------------------------|---|
| ☒ | Sample(s) were preserved at MSL |
| ☐ | Sample(s) were preserved prior to arrival at MSL (noted on CoC / Sample / per PM Instruction) |
| ☐ | Random pH checked for ~10% of samples (use dip paper) Sample IDs: _____ |
| ☐ | Complete pH check required for project (use pH meter and record on pH Record form) |

If preservation necessary, record Acid Lot#

- | | | |
|---|-----------------------|----------------------------|
| Type: ☒ | 0.2% HNO ₃ | Notes: <u>Lot# 1203030</u> |
| ☐ | 0.5% HCl (Hg samples) | Notes: _____ |
| ☐ | Refrigerate/Freeze | Notes: _____ |
| ☐ | Other | Notes: _____ |

Completed By: JMBDate/Time: 12/3/04 1630

LOG-IN CHECKLIST

Worst FY05 storm 1 soInlet

Reference SOP# MSL-A-001

Central File #: 2318

Sample No(s): 4-71

Project Manager: J. BRANDEN BERGER

TO BE COMPLETED BY PROJECT MANAGER (prior to arrival when possible)	
Matrix:	stormwater WP# F55746
Yes ☐ No ☒	Navy-type Project (requires high-level sample tracking procedures)
☒ ☐	Filter Samples: Amount: Entire sample Half of sample
☐ ☒	Freeze dry sample(s) - samples will be weighed and placed in ultralow temp freezer (Lab# 130)
☒ ☐	Special instructions: composite
Sample Preservation Instructions: 0.2% HNO ₃	
Date To Archive:	Date To Dispose:

TO BE COMPLETED UPON SAMPLE ARRIVAL/LOG-IN

Yes	No	N/A	Indicate in Appropriate Box
☐	☐	☒	Was a custody seal present?
☐	☐	☒	Was the custody seal intact?
☒	☐	☐	Was cooler(s) temperature(s) within acceptable range of $4 \pm 2^\circ\text{C}$? see back $^\circ\text{C}$ (if multiple coolers, note temp. of each) $^\circ\text{C}$
☐	☐	☒	Was Project Manager notified of any custody/login discrepancies (cooler temp, sponsor codes, etc)? Comment/Remedy:
☒	☐	☐	Were all chain of custody forms signed and dated?
☒	☐	☐	Were samples filtered at MSL?

Sample condition(s):

Acceptable

Other (explain):

Container type:

Teflon

Poly

Glass

Spex

Other:

Notes:

Completed By: J. Berger

Date/Time: 1/18/05 1645

SAMPLE PRESERVATION

☒	Sample(s) were preserved at MSL
☐	Sample(s) were preserved prior to arrival at MSL (noted on CoC / Sample / per PM Instruction)
☐	Random pH checked for ~10% of samples (use dip paper) Sample IDs:
☐	Complete pH check required for project (use pH meter and record on pH Record form)

If preservation necessary, record Acid Lot#

Type: ☒	0.2% HNO ₃	Notes: LOT# 1203030 OPTIMA
☐	0.5% HCl (Hg samples)	Notes:
☐	Refrigerate/Freeze	Notes:
☐	Other	Notes:

Completed By: J. Berger

Date/Time: 1/18/05 23:00

L4D (4, 6-10, 30, 38, 69+70)

K4A (14-19, 29-31, 42-47, 57-59)

L4C (5, 12, 20-22, 24, 26, 27-28, 33, 40, 48-50, 52, 54, 56, 64, 68)

Cooler #1

Temp °C
1.4

Jars

2	1.7
3	1.3
4	2.1
5	1.5
6	2.5
7	3.4
8	1.6
9	2.3
10	3.1
11	1.5
12	3.2
13	2.1
14	1.2
15	2.2
16	1.2
17	1.2
18	1.5
19	1.3
20	1.3
21	1.4
22	2.1
~~23~~	
~~24~~	

LOG-IN CHECKLIST

Gorst Event 2

131

Reference SOP# MSL-A-001

Central File #: 2318

Sample No(s):

72-127

Project Manager: J. BRANDENBERGER

TO BE COMPLETED BY PROJECT MANAGER (prior to arrival when possible)

Matrix: water

WP#

Yes

No

☐☒

Navy-type Project (requires high-level sample tracking procedures)

☒☐

Filter Samples:

Amount:

Entire sample

Half of sample

☐☒

Freeze dry sample(s) - samples will be weighed and placed in ultralow temp freezer (Lab# 130)

☒☐

Special instructions:

Composite

Sample Preservation Instructions:

0.2% HNO₃

Date To Archive:

Date To Dispose:

TO BE COMPLETED UPON SAMPLE ARRIVAL/LOG-IN

Yes

No

N/A

Indicate in Appropriate Box

☐☐☒

Was a custody seal present?

☐☐☒

Was the custody seal intact?

☒☐☐Was cooler(s) temperature(s) within acceptable range of $4 \pm 2^\circ\text{C}$? see back of sheet °C
(if multiple coolers, note temp. of each)☐☐☒Was Project Manager notified of any custody/login discrepancies (cooler temp, sponsor codes, etc)?
Comment/Remedy:☒☐☐Were all chain of custody forms signed and dated?☒☐☐

Were samples filtered at MSL?

Sample condition(s):

Acceptable

Other (explain):

Container type:

TeflonPolyGlass

Spex

Other:

Notes:

Completed By: J. Brandenberger for RWDate/Time: 1/30/05

SAMPLE PRESERVATION

☐

Sample(s) were preserved at MSL

☐

Sample(s) were preserved prior to arrival at MSL (noted on CoC / Sample / per PM Instruction)

☐

Random pH checked for ~10% of samples (use dip paper)

Sample IDs:

☐

Complete pH check required for project (use pH meter and record on pH Record form)

If preservation necessary, record Acid Lot#

Type:

☒0.2% HNO₃

Notes:

OPTIMA LOT# 1203080☐

0.5% HCl (Hg samples)

Notes:

☐

Refrigerate/Freeze

Notes:

☐

Other

Notes:

Completed By: P. Wassel

Date/Time:

1/23/05 16:00Storage LSC (#72-78, 80-89, 93-96,)LSD (#97-106, 108-117, 121-127)

COOLER#

TEMP °C

1

1.6

2

1.4

3

1.4

4

1.6

5

1.3

6

1.4

7

1.6

8

1.3

9

1.6

10

1.4

11

1.2

LOG-IN CHECKLIST

ENWEST Marine 1200501

Reference SOP# MSL-A-001

Central File #: 2318

Sample No(s): 132 - 159

Project Manager: nm

TO BE COMPLETED BY PROJECT MANAGER (prior to arrival when possible)

Matrix: <u>seawater</u>		WP#
Yes ☐	No ☒	Navy-type Project (requires high-level sample tracking procedures)
☒	☐	Filter Samples: <u>Amount:</u> <u>Entire sample</u> <u>Half of sample</u>
☐	☒	Freeze dry sample(s) - samples will be weighed and placed in ultralow temp freezer (Lab# 130)
☒	☐	Special instructions: <u>split for DOC/TOC</u>
Sample Preservation Instructions: <u>0.2% HNO₃</u>		
Date To Archive: _____ Date To Dispose: _____		

TO BE COMPLETED UPON SAMPLE ARRIVAL/LOG-IN

Yes	No	N/A	Indicate in Appropriate Box
☐	☐	☒	Was a custody seal present?
☐	☐	☒	Was the custody seal intact?
☒	☐	☐	Was cooler(s) temperature(s) within acceptable range of $4 \pm 2^\circ\text{C}$? <u>5.0 and 4.5</u> $^\circ\text{C}$ (if multiple coolers, note temp. of each) $^\circ\text{C}$
☐	☐	☒	Was Project Manager notified of any custody/login discrepancies (cooler temp, sponsor codes, etc)? Comment/Remedy: _____
☒	☐	☐	Were <u>all</u> chain of custody forms signed and dated?
☒	☐	☐	Were samples filtered at MSL?

Sample condition(s):

Acceptable

Other (explain): _____

Container type:

TeflonPoly

Glass

Spex

Other: _____

Notes: _____

Completed By: nmDate/Time: 2/9/05 1610

SAMPLE PRESERVATION

☒	Sample(s) were preserved at MSL
☐	Sample(s) were preserved prior to arrival at MSL (noted on CoC / Sample / per PM Instruction)
☐	Random pH checked for ~10% of samples (use dip paper) Sample IDs: _____
☐	Complete pH check required for project (use pH meter and record on pH Record form)

If preservation necessary, record Acid Lot#

Type: ☒	0.2% HNO ₃	Notes: <u>Optima Lot # 1203080</u>
☐	0.5% HCl (Hg samples)	Notes: _____
☐	Refrigerate/Freeze	Notes: _____
☐	Other	Notes: _____

Completed By: nmDate/Time: 2/9/05 1010for R Wood2/10/05storage: 1302-152
153-159K6C
JSD

LOG-IN CHECKLIST

SD/Inlet F405 Storm 3 - Sinclair I

Reference SOP# MSL-A-001

Central File #: 2318

Sample No(s): 160 - 238

Project Manager: JMB

TO BE COMPLETED BY PROJECT MANAGER (prior to arrival when possible)			
Matrix: <u>water</u>		WP# <u>F55746</u>	
Yes	No		
☐	☒	Navy-type Project (requires high-level sample tracking procedures)	
☒	☐	Filter Samples:	<u>Amount:</u> <u>Entire sample</u> <u>Half of sample</u>
☐	☒	Freeze dry sample(s) - samples will be weighed and placed in ultralow temp freezer (Lab# 130)	
☒	☐	Special instructions:	<u>Composite</u>
Sample Preservation Instructions:			
Date To Archive:		Date To Dispose:	

TO BE COMPLETED UPON SAMPLE ARRIVAL/LOG-IN

Yes	No	N/A	Indicate in Appropriate Box
☐	☐	☒	Was a custody seal present?
☐	☐	☒	Was the custody seal intact?
☒	☐	☐	Was cooler(s) temperature(s) within acceptable range of $4 \pm 2^\circ\text{C}$? (if multiple coolers, note temp. of each)
☐	☐	☒	Was Project Manager notified of any custody/login discrepancies (cooler temp, sponsor codes, etc)? Comment/Remedy:
☒	☐	☐	Were <u>all</u> chain of custody forms signed and dated?
☒	☐	☐	Were samples filtered at MSL?

Sample condition(s):

Acceptable

Other (explain):

Container type:

TeflonPolyGlass

Spex

Other:

Notes:

Completed By: JMBDate/Time: 3/2/05 0930

SAMPLE PRESERVATION

☒	Sample(s) were preserved at MSL
☐	Sample(s) were preserved prior to arrival at MSL (noted on CoC / Sample / per PM Instruction)
☐	Random pH checked for ~10% of samples (use dip paper) Sample IDs:
☐	Complete pH check required for project (use pH meter and record on pH Record form)

If preservation necessary, record Acid Lot#

Type: ☒	0.2% HNO ₃	Notes: <u>OPTIMA LOT# 1202080</u>
☐	0.5% HCl (Hg samples)	Notes:
☐	Refrigerate/Freeze	Notes:
☐	Other	Notes:

Completed By: K. WoodDate/Time: 3/2/05 17:50

Storage

R Floor B # 184 → 203
 L Floor B # 160 → 183
 L Floor C # 222 → 236
 L Floor D # 204 → 27.1

Coolers for SD/Inlet FY05 Storm 3

temp

Cooler ID

- 4.9 KAR-WWTP-Grab 1-3
- 1.1 B-WWTP-Grabs Samples 1-3
- 1.7 B-st 28 Jars 1-3
- 2.2 Grabs WS-DOT 1A 1-3 }
 2 1-3 }
 3 1-3 }
- 1.2 PSNS 015, JWb 617/PSNS 124 Jars 1 & 2
- 1.7 PSNS 124 Jar 7 only/PSNS 126 Jars 1-3
- 1.3 303
- 1.3 PNS 124 Jars 3-6
- 1.8 PSNS Jar 3, 4, 5
- 1.6 B-st/CS016 Jars 6 & 7/PSNS 015 Jars 1 & 2
- 2.9 B-st 28 Jars 4, 6, 8 B-St/CS016 Jar 1
- 2.3 Cooler #58
- 2.0 BL Jar 4/OC Jars 1-3
- 1.4 B-st/CS016 Jars 2-5

FY05

sinclair storm 2

LOG-IN CHECKLIST

Reference SOP# MSL-A-001

Central File #: 2318

Sample No(s): 247-320

Project Manager: JMB

TO BE COMPLETED BY PROJECT MANAGER (prior to arrival when possible)			
Matrix: <u>water</u>		WP# _____	
Yes	No		
☐	☒	Navy-type Project (requires high-level sample tracking procedures)	
☒	☐	Filter Samples: <u>Amount</u>	Entire sample
☐	☒	Freeze dry sample(s) - samples will be weighed and placed in ultralow temp freezer (Lab# 130)	
☒	☐	Special instructions: <u>composite, split</u>	
Sample Preservation Instructions: <u>0.2% HNO₃ for metals</u>			
Date To Archive: _____		Date To Dispose: _____	

TO BE COMPLETED UPON SAMPLE ARRIVAL/LOG-IN

Yes	No	N/A	Indicate in Appropriate Box
☐	☐	☒	Was a custody seal present?
☐	☐	☒	Was the custody seal intact?
☒	☐	☐	Was cooler(s) temperature(s) within acceptable range of $4 \pm 2^\circ\text{C}$? °C (if multiple coolers, note temp. of each) °C
☐	☐	☒	Was Project Manager notified of any custody/login discrepancies (cooler temp, sponsor codes, etc)? Comment/Remedy: _____
☒	☐	☐	Were <u>all</u> chain of custody forms signed and dated?
☒	☐	☐	Were samples filtered at MSL?

Sample condition(s):

Acceptable

Other (explain): _____

Container type:

TeflonPolyGlass

Spex

Other: _____

Notes: _____

Completed By: JMBDate/Time: 3/21/05 1911

SAMPLE PRESERVATION

☐	Sample(s) were preserved at MSL
☐	Sample(s) were preserved prior to arrival at MSL (noted on CoC / Sample / per PM Instruction)
☐	Random pH checked for ~10% of samples (use dip paper) Sample IDs: _____
☐	Complete pH check required for project (use pH meter and record on pH Record form)

If preservation necessary, record Acid Lot#

Type: ☒	0.2% HNO ₃	Notes: <u>OPTIMA Nitric Lot# 1203080</u>
☐	0.5% HCl (Hg samples)	Notes: _____
☐	Refrigerate/Freeze	Notes: _____
☐	Other	Notes: _____

Completed By: R. WoodDate/Time: 3/21/05 17:003/22/05 09:30

Storage: 2318(239-259) K2C
 2318(260-279) K1B
 2318(280-290) K1A
 2318(291-300) K1A
 2318(301-320) K1A

LOG-IN CHECKLIST

FY05 SD Inlet Dyes Storm 1

Reference SOP# MSL-A-001

Central File #: 2318

Sample No(s): 321-389, 371-389 Project Manager: Jmr3

TO BE COMPLETED BY PROJECT MANAGER (prior to arrival when possible)	
Matrix:	water
WP#	
Yes	No
☐	☒
Navy-type Project (requires high-level sample tracking procedures)	
☒	☐
Filter Samples: Amount: Entire sample Half of sample	
☐	☒
Freeze dry sample(s) - samples will be weighed and placed in ultralow temp freezer (Lab# 130)	
☒	☐
Special instructions: composite / split	
Sample Preservation Instructions: metals 0.2% HNO ₃	
Date To Archive: Date To Dispose:	

TO BE COMPLETED UPON SAMPLE ARRIVAL/LOG-IN

Yes	No	N/A	Indicate in Appropriate Box
☐	☐	☒	Was a custody seal present?
☐	☐	☒	Was the custody seal intact?
☒	☐	☐	Was cooler(s) temperature(s) within acceptable range of $4 \pm 2^\circ\text{C}$? see CoCs $^\circ\text{C}$ (if multiple coolers, note temp. of each) $^\circ\text{C}$
☐	☐	☒	Was Project Manager notified of any custody/login discrepancies (cooler temp, sponsor codes, etc)?
Comment/Remedy:			
☒	☐	☐	Were <u>all</u> chain of custody forms signed and dated?
☒	☐	☐	Were samples filtered at MSL?
Sample condition(s): Acceptable Other (explain):			
Container type: Teflon Poly Glass Spex Other:			
Notes:			

Completed By: Jmr3

Date/Time: 3/27/05 1302

SAMPLE PRESERVATION

☒	Sample(s) were preserved at MSL
☐	Sample(s) were preserved prior to arrival at MSL (noted on CoC / Sample / per PM Instruction)
☐	Random pH checked for ~10% of samples (use dip paper) Sample IDs:
☐	Complete pH check required for project (use pH meter and record on pH Record form)

If preservation necessary, record Acid Lot#

Type: ☒	0.2% HNO ₃	Notes: OPT, HA LOT# 1203080
☐	0.5% HCl (Hg samples)	Notes:
☐	Refrigerate/Freeze	Notes:
☐	Other	Notes:

Completed By: R. Reed

Date/Time: 3/27/05 17:20

Storage: JIC (321-324, 327-334, 337-339)
IIB (340-342)

marine 4 (Dyes of storm)

LOG-IN CHECKLIST

Reference SOP# MSL-A-001

Central File #: 2318

Sample No(s): 343-370

Project Manager: J. BRANDEN BERGIER

TO BE COMPLETED BY PROJECT MANAGER (prior to arrival when possible)	
Matrix:	seawater
WP#	
Yes ☐	No ☒
Navy-type Project (requires high-level sample tracking procedures)	
Yes ☒	No ☐
Filter Samples:	Amount: Entire sample Half of sample
Yes ☐	No ☒
Freeze dry sample(s) - samples will be weighed and placed in ultralow temp freezer (Lab# 130)	
Yes ☒	No ☐
Special instructions:	split / filter / preserve
Sample Preservation Instructions: 0.2% HNO ₃	
Date To Archive:	Date To Dispose:

TO BE COMPLETED UPON SAMPLE ARRIVAL/LOG-IN

Yes	No	N/A	Indicate in Appropriate Box
☐	☐	☒	Was a custody seal present?
☐	☐	☒	Was the custody seal intact?
☒	☐	☐	Was cooler(s) temperature(s) within acceptable range of $4 \pm 2^\circ\text{C}$? see CoC $^\circ\text{C}$ (if multiple coolers, note temp. of each) $^\circ\text{C}$
☐	☐	☒	Was Project Manager notified of any custody/login discrepancies (cooler temp, sponsor codes, etc)? Comment/Remedy:
☒	☐	☐	Were all chain of custody forms signed and dated?
☒	☐	☐	Were samples filtered at MSL?

Sample condition(s):

Acceptable

Other (explain):

Container type:

Teflon

Poly

Glass

Spex

Other:

Notes:

Completed By: JMBren

Date/Time: 3/28/05 1411

SAMPLE PRESERVATION

☒	Sample(s) were preserved at MSL
☐	Sample(s) were preserved prior to arrival at MSL (noted on CoC / Sample / per PM Instruction)
☐	Random pH checked for ~10% of samples (use dip paper) Sample IDs:
☐	Complete pH check required for project (use pH meter and record on pH Record form)

If preservation necessary, record Acid Lot#

Type: ☒	0.2% HNO ₃	Notes: OPTIMA Lot# 1203080
☐	0.5% HCl (Hg samples)	Notes:
☐	Refrigerate/Freeze	Notes:
☐	Other	Notes:

Completed By: J. Kavel

Date/Time: 3/28/05 17:20

Storage: J2B (335, 336, 343-354)
I4C (355-363)
T2C (364-370)

LOG-IN CHECKLIST

SO Inlet Wet Season 2005

Reference SOP# MSL-A-001

Central File #: 2318

select samples:

Sample No(s): 453-482, 504-511 Project Manager: jmvz

TO BE COMPLETED BY PROJECT MANAGER (prior to arrival when possible)

Yes	No	Matrix: <u>water</u>	WP#
☐	☒	Navy-type Project (requires high-level sample tracking procedures)	
☒	☐	Filter Samples: <u>Amount:</u>	Entire sample Half of sample
☐	☒	Freeze dry sample(s) - samples will be weighed and placed in ultralow temp freezer (Lab# 130)	
☒	☐	Special instructions: <u>split samples</u>	
Sample Preservation Instructions: <u>metals: 0.2% HNO₃</u>			
Date To Archive:		Date To Dispose:	

TO BE COMPLETED UPON SAMPLE ARRIVAL/LOG-IN

Yes	No	N/A	Indicate in Appropriate Box
☐	☐	☒	Was a custody seal present?
☐	☐	☒	Was the custody seal intact?
☒	☐	☐	Was cooler(s) temperature(s) within acceptable range of $4 \pm 2^\circ\text{C}$? <u>4.0, 4.8, 2.9</u> °C (if multiple coolers, note temp. of each) <u>4.1</u> °C
☐	☐	☒	Was Project Manager notified of any custody/login discrepancies (cooler temp, sponsor codes, etc)? Comment/Remedy: _____
☒	☐	☐	Were <u>all</u> chain of custody forms signed and dated?
☒	☐	☐	Were samples filtered at MSL?

Sample condition(s):

Acceptable

Other (explain):

Container type:

Teflon

Poly

Glass

Spex

Other:

Notes: Hand delivered by TECCompleted By: jmvzDate/Time: 3/31/05 1930

SAMPLE PRESERVATION

☒	Sample(s) were preserved at MSL
☐	Sample(s) were preserved prior to arrival at MSL (noted on CoC / Sample / per PM Instruction)
☐	Random pH checked for ~10% of samples (use dip paper) Sample IDs: _____
☐	Complete pH check required for project (use pH meter and record on pH Record form)

If preservation necessary, record Acid Lot#

Type: ☒	0.2% HNO ₃	Notes: <u>1203080</u>
☐	0.5% HCl (Hg samples)	Notes: _____
☐	Refrigerate/Freeze	Notes: _____
☐	Other	Notes: _____

Completed By: jmvzDate/Time: 4/1/05

Ayes Storm 2

LOG-IN CHECKLIST

Reference SOP# MSL-A-001

Central File #: 2318 Sample No(s): 391-412, 44 Project Manager: JMB

TO BE COMPLETED BY PROJECT MANAGER (prior to arrival when possible)			
Matrix: <u>water</u>		WP# _____	
Yes	No	Navy-type Project (requires high-level sample tracking procedures)	
☐	☒		
☒	☐	Filter Samples: <u>Amount:</u> <u>Entire sample</u> <u>Half of sample</u>	
☐	☒	Freeze dry sample(s) - samples will be weighed and placed in ultralow temp freezer (Lab# 130)	
☒	☐	Special instructions: <u>composite</u>	
Sample Preservation Instructions: <u>SW6 Bottles 2-3-4-5 - (1.12)</u>			
Date To Archive: _____		Date To Dispose: <u>SW6 Bottles 1-2-3 - (1.4)</u>	

TO BE COMPLETED UPON SAMPLE ARRIVAL/LOG-IN			
Yes	No	N/A	Indicate in Appropriate Box
☐	☒	☐	Was a custody seal present?
☐	☐	☒	Was the custody seal intact?
☒	☐	☐	Was cooler(s) temperature(s) within acceptable range of $\pm 2^{\circ}\text{C}$? <u>note</u>
(if multiple coolers, note temp. of each) _____ $^{\circ}\text{C}$			
☐	☐	☒	Was Project Manager notified of any custody/login discrepancies (cooler temp, sponsor codes, etc)?
Comment/Remedy: _____			
☒	☐	☐	Were <u>all</u> chain of custody forms signed and dated?
☐	☐	☐	Were samples filtered at MSL?
Sample condition(s): <u>Acceptable</u> <u>Other (explain):</u> _____			
Container type: <u>Teflon</u> <u>Poly</u> <u>Glass</u> <u>Spex</u> <u>Other:</u> _____			
Notes: <u>all coolers well packed in ice - if temps low due to ice contact</u>			
Completed By: <u>Gjmsk</u>		Date/Time: <u>4/1/05 1530</u>	

SAMPLE PRESERVATION	
☒	Sample(s) were preserved at MSL
☐	Sample(s) were preserved prior to arrival at MSL (noted on CoC / Sample / per PM Instruction)
☐	Random pH checked for ~10% of samples (use dip paper) Sample IDs: _____
☐	Complete pH check required for project (use pH meter and record on pH Record form)
If preservation necessary, record Acid Lot#	
Type: ☒	0.2% HNO ₃ Notes: <u>OPTIMA LOT # 1203080</u>
☐	0.5% HCl (Hg samples) Notes: _____
☐	Refrigerate/Freeze Notes: _____
☐	Other Notes: _____

Completed By: B. Wood Date/Time: 4/2/05 12:15

Storage L - 1 - C

LOG-IN CHECKLIST

Sindair Inlet make up Event

due to duplicate codes
4/26/05

Reference SOP# MSL-A-001

Central File #: 2318

Sample No(s): 453-455B

Project Manager: Jmz

TO BE COMPLETED BY PROJECT MANAGER (prior to arrival when possible)

Yes	No	Matrix: <u>stormwater</u>	WP#
☐	☒	Navy-type Project (requires high-level sample tracking procedures)	
☒	☐	Filter Samples: <u>Amount:</u> <u>Entire sample</u> <u>Half of sample</u>	
☐	☒	Freeze dry sample(s) - samples will be weighed and placed in ultralow temp freezer (Lab# 130)	
☒	☐	Special instructions: <u>composite / split / preserve</u>	
Sample Preservation Instructions:		<u>see SAP</u>	
Date To Archive:		Date To Dispose:	

TO BE COMPLETED UPON SAMPLE ARRIVAL/LOG-IN

Yes	No	N/A	Indicate in Appropriate Box
☐	☐	☒	Was a custody seal present?
☐	☐	☒	Was the custody seal intact?
☒	☐	☐	Was cooler(s) temperature(s) within acceptable range of $4 \pm 2^\circ\text{C}$? <u>4.0</u> $^\circ\text{C}$ (if multiple coolers, note temp. of each) $^\circ\text{C}$
☐	☐	☒	Was Project Manager notified of any custody/login discrepancies (cooler temp, sponsor codes, etc)? Comment/Remedy:
☒	☐	☐	Were <u>all</u> chain of custody forms signed and dated?
☒	☐	☐	Were samples filtered at MSL?

Sample condition(s):

Acceptable Other (explain):

Container type:

Teflon Poly Glass Spex Other:

Notes:

Completed By: JmzDate/Time: 4/11/05 1055

SAMPLE PRESERVATION

☒	Sample(s) were preserved at MSL
☐	Sample(s) were preserved prior to arrival at MSL (noted on CoC / Sample / per PM Instruction)
☐	Random pH checked for ~10% of samples (use dip paper) Sample IDs: _____
☐	Complete pH check required for project (use pH meter and record on pH Record form)

If preservation necessary, record Acid Lot#

Type: ☒	0.2% HNO ₃	Notes: <u>OPTIMA NITRIC LOT# 1203080</u>
☐	0.5% HCl (Hg samples)	Notes: _____
☐	Refrigerate/Freeze	Notes: _____
☐	Other	Notes: _____

Completed By: ewoodDate/Time: 4/11/05 16500

metals 454 + 455B

Org # 453

Storage: I-1-B 2005 Storm Water Data Report

Legend - FY05 Sinclair (CF# 2318) Login

TYPE CODE:

FC	flow composite from ISSCO Samples
EC-I	equal ratios composite of time composited ISSCO Samples
EC-G	equal ratios composite of grab samples
G	Grab sample
D	Discrete sample collected from one jar of the time compositing ISSCO sampler
EM	Event Mean

MATRIX CODE:

STW	Stream Water
MW	Marine Water
SW	Stormwater Outfall
SED	Sediment
TISS	Tissue
EB	Equipment Blank Water

cc: Project Manager/Central File
Login File

2318

SAMPLE LOGIN

(SOP# MSL-A-001)

Project Manager: Brandenberger

Date Received: 12/03/04

Batch: 1

PROJECT: TMDL in Sinclair & Dyes Inlets

SPONSOR CODE	Site Description	BATTELLE CODE	MATRIX	Portion	STORAGE LOCATION	PARAMETERS REQUESTED	COLLECTION DATE	INITIALS	Type
BST12-RB*	BST12-RB	2318-1	EB	raw water	Prep Lab L-3-B	Total Metals, Hg	12/03/04	MLFM	EC-I
BST12-RB*	BST12-RB	2318-2	EB	filt. water	Prep Lab L-3-B	Dissolved Metals	12/03/04	MLFM	EC-I
BST12-RB*	BST12-RB	2318-3	EB	raw water	Outside Refrigerator	Organics	12/03/04	MLFM	EC-I

*Composit of Samples BST12-RB-1,2,3 & 4. Made into one sample and divided into 3 samples (sample 2 being filtered), for the various analysis.

SAMPLE LOGIN

(SOP# MSL-A-001)

Project Manager: Brandenberger

Date Received: 01/19/05

Batch: 2

PROJECT: FY05 Gorst Storm 1

SPONSOR CODE	Station ID	BATTELLE CODE	MATRIX	Portion	STORAGE LOCATION	PARAMETERS REQUESTED	COLLECTION DATE	INITIALS	Type
T1100	LMK136	2318-4	SW	raw water	Prep Lab L-4-D	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	01/17/05	MLFM	FC
T1101	GC	2318-5	STW	raw water	Prep Lab L-4-C	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	01/17/05	MLFM	EC-I
T1102	GC-SAN	2318-6	STW	raw water	Prep Lab L-4-D	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	01/17/05	MLFM	EC-I
T1103	AC	2318-7	STW	raw water	Prep Lab L-4-D	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	01/17/05	MLFM	EC-I
T1104	LMK122	2318-8	SW	raw water	Prep Lab L-4-D	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	01/17/05	MLFM	FC
T1105	LMK038	2318-9	SW	raw water	Prep Lab L-4-D	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	01/17/05	MLFM	FC
T1106	PO-POBLVD	2318-10	SW	raw water	Prep Lab L-4-D	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	01/17/05	MLFM	FC
G1101	KAR-WWTP	2318-12	WWTP	raw water	Prep Lab L-4-C	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	01/17/05	MLFM	EC-G
G1103-A	AC-LOW	2318-14	STW	raw water	Prep Lab K-4-A	Al, Cu, Zn, Cd, Pb	01/17/05	MLFM	G
G1103-B	AC-LOW	2318-15	STW	raw water	Prep Lab K-4-A	Al, Cu, Zn, Cd, Pb	01/17/05	MLFM	G
G1103-C	AC-LOW	2318-16	STW	raw water	Prep Lab K-4-A	Al, Cu, Zn, Cd, Pb	01/17/05	MLFM	G
G1104-A	GC-M	2318-17	STW	raw water	Prep Lab K-4-A	Al, Cu, Zn, Cd, Pb	01/17/05	MLFM	G
G1104-B	GC-M	2318-18	STW	raw water	Prep Lab K-4-A	Al, Cu, Zn, Cd, Pb	01/17/05	MLFM	G
G1104-C	GC-M	2318-19	STW	raw water	Prep Lab K-4-A	Al, Cu, Zn, Cd, Pb	01/17/05	MLFM	G
G1105-A	WADOT-01A	2318-20	SW	raw water	Prep Lab L-4-C	Al, Cu, Zn, Cd, Pb	01/17/05	MLFM	G
G1105-B	WADOT-01A	2318-21	SW	raw water	Prep Lab L-4-C	Al, Cu, Zn, Cd, Pb	01/17/05	MLFM	G
G1105-C	WADOT-01A	2318-22	SW	raw water	Prep Lab L-4-C	Al, Cu, Zn, Cd, Pb	01/17/05	MLFM	G
G1106-B	WADOT-01B	2318-24	SW	raw water	Prep Lab L-4-C	Al, Cu, Zn, Cd, Pb	01/17/05	MLFM	G
G1107-A	WADOT-02	2318-26	SW	raw water	Prep Lab L-4-C	Al, Cu, Zn, Cd, Pb	01/17/05	MLFM	G
G1107-B	WADOT-02	2318-27	SW	raw water	Prep Lab L-4-C	Al, Cu, Zn, Cd, Pb	01/17/05	MLFM	G
G1107-C	WADOT-02	2318-28	SW	raw water	Prep Lab L-4-C	Al, Cu, Zn, Cd, Pb	01/17/05	MLFM	G
G1108-A	WADOT-03	2318-29	SW	raw water	Prep Lab K-4-A	Al, Cu, Zn, Cd, Pb	01/17/05	MLFM	G
G1108-B	WADOT-03	2318-30	SW	raw water	Prep Lab K-4-A	Al, Cu, Zn, Cd, Pb	01/17/05	MLFM	G
G1108-C	WADOT-03	2318-31	SW	raw water	Prep Lab K-4-A	Al, Cu, Zn, Cd, Pb	01/17/05	MLFM	G
T1100	LMK136	2318-32	SW	filt. water	Prep Lab L-4-D	Cd, Cu, Pb, Ag and Zn	01/17/05	MLFM	FC
T1101	GC	2318-33	STW	filt. water	Prep Lab L-4-C	Cd, Cu, Pb, Ag and Zn	01/17/05	MLFM	EC-I
T1102	GC-SAN	2318-34	STW	filt. water	Prep Lab L-4-D	Cd, Cu, Pb, Ag and Zn	01/17/05	MLFM	EC-I
T1103	AC	2318-35	STW	filt. water	Prep Lab L-4-D	Cd, Cu, Pb, Ag and Zn	01/17/05	MLFM	EC-I
T1104	LMK122	2318-36	SW	filt. water	Prep Lab L-4-D	Cd, Cu, Pb, Ag and Zn	01/17/05	MLFM	FC
T1105	LMK038	2318-37	SW	filt. water	Prep Lab L-4-D	Cd, Cu, Pb, Ag and Zn	01/17/05	MLFM	FC
T1106	PO-POBLVD	2318-38	SW	filt. water	Prep Lab L-4-D	Cd, Cu, Pb, Ag and Zn	01/17/05	MLFM	FC
G1101	KAR-WWTP	2318-40	WWTP	filt. water	Prep Lab L-4-C	Cd, Cu, Pb, Ag and Zn	01/17/05	MLFM	EC-G
G1103-A	AC-LOW	2318-42	STW	filt. water	Prep Lab K-4-A	Cu, Zn	01/17/05	MLFM	G
G1103-B	AC-LOW	2318-43	STW	filt. water	Prep Lab K-4-A	Cu, Zn	01/17/05	MLFM	G
G1103-C	AC-LOW	2318-44	STW	filt. water	Prep Lab K-4-A	Cu, Zn	01/17/05	MLFM	G

SAMPLE LOGIN

(SOP# MSL-A-001)

Project Manager: Brandenberger

Date Received: 01/19/05

Batch: 2

PROJECT: FY05 Gorst Storm 1

SPONSOR CODE	Station ID	BATTELLE CODE	MATRIX	Portion	STORAGE LOCATION	PARAMETERS REQUESTED	COLLECTION DATE	INITIALS	Type
G1104-A	GC-M	2318-45	STW	filt. water	Prep Lab K-4-A	Cu, Zn	01/17/05	MLFM	G
G1104-B	GC-M	2318-46	STW	filt. water	Prep Lab K-4-A	Cu, Zn	01/17/05	MLFM	G
G1104-C	GC-M	2318-47	STW	filt. water	Prep Lab K-4-A	Cu, Zn	01/17/05	MLFM	G
G1105-A	WADOT-01A	2318-48	SW	filt. water	Prep Lab L-4-C	Cu, Zn	01/17/05	MLFM	G
G1105-B	WADOT-01A	2318-49	SW	filt. water	Prep Lab L-4-C	Cu, Zn	01/17/05	MLFM	G
G1105-C	WADOT-01A	2318-50	SW	filt. water	Prep Lab L-4-C	Cu, Zn	01/17/05	MLFM	G
G1106-B	WADOT-01B	2318-52	SW	filt. water	Prep Lab L-4-C	Cu, Zn	01/17/05	MLFM	G
G1107-A	WADOT-02	2318-54	SW	filt. water	Prep Lab L-4-C	Cu, Zn	01/17/05	MLFM	G
G1107-B	WADOT-02	2318-55	SW	filt. water	Prep Lab L-4-C	Cu, Zn	01/17/05	MLFM	G
G1107-C	WADOT-02	2318-56	SW	filt. water	Prep Lab L-4-C	Cu, Zn	01/17/05	MLFM	G
G1108-A	WADOT-03	2318-57	SW	filt. water	Prep Lab K-4-A	Cu, Zn	01/17/05	MLFM	G
G1108-B	WADOT-03	2318-58	SW	filt. water	Prep Lab K-4-A	Cu, Zn	01/17/05	MLFM	G
G1108-C	WADOT-03	2318-59	SW	filt. water	Prep Lab K-4-A	Cu, Zn	01/17/05	MLFM	G
T1100	LMK136	2318-60	SW	raw water	Outside Refrigerator	Organics	01/17/05	MLFM	FC
T1102	GC-SAN	2318-62	STW	raw water	Outside Refrigerator	Organics	01/17/05	MLFM	EC-I
T1103	AC	2318-63	STW	raw water	Outside Refrigerator	Organics	01/17/05	MLFM	EC-I
T1104	LMK122	2318-64	SW	raw water	Outside Refrigerator	Organics	01/17/05	MLFM	FC
T1105	LMK038	2318-65	SW	raw water	Outside Refrigerator	Organics	01/17/05	MLFM	FC
T1106	PO-POBLVD	2318-66	SW	raw water	Outside Refrigerator	Organics	01/17/05	MLFM	FC
G1105-B-Dup	WA-DOT-01A	2318-67	SW	raw water	Prep Lab L-4-C	Al, Cu, Zn, Cd, Pb	01/17/05	MLFM	G
G1105-B-Dup	WA-DOT-01A	2318-68	SW	filt. water	Prep Lab L-4-C	Cu, Zn	01/17/05	MLFM	G
T1114	AC-DUP	2318-69	STW	raw water	Prep Lab L-4-D	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	01/17/05	MLFM	EC-I
T1114	AC-DUP	2318-70	STW	filt. water	Prep Lab L-4-D	Cd, Cu, Pb, Ag and Zn	01/17/05	MLFM	EC-I
T1114	AC-DUP	2318-71	STW	raw water	Outside Refrigerator	Organics	01/17/05	MLFM	EC-I

SAMPLE LOGIN
(SOP# MSL-A-001)

Project Manager: Brandenberger
Date Received: 01/24/05
Batch: 3

PROJECT: FY05 Gorst Storm 2

SPONSOR CODE	Station ID	BATTELLE CODE	MATRIX	Portion	STORAGE LOCATION	PARAMETERS REQUESTED	COLLECTION DATE	INITIALS	TYPE
T1107	LMK 136	2318-72	SW	raw water	Prep Lab I-5-C	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	01/22/05	MLFM	FC
T1108	GC	2318-73	STW	raw water	Prep Lab I-5-C	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	01/22/05	MLFM	EC-I
T1109	GC-SAN	2318-74	STW	raw water	Prep Lab I-5-C	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	01/22/05	MLFM	EC-I
T1111	LMK 122	2318-75	SW	raw water	Prep Lab I-5-C	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	01/22/05	MLFM	FC
T1112	LMK 038	2318-76	SW	raw water	Prep Lab I-5-C	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	01/22/05	MLFM	FC
T1113	PO-POBLVD	2318-77	SW	raw water	Prep Lab I-5-C	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	01/22/05	MLFM	FC
T1115	AC-DUP	2318-78	STW	raw water	Prep Lab I-5-C	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	01/22/05	MLFM	EC-I
T1110	KAR-WWTP	2318-80	WWTP	raw water	Prep Lab I-5-C	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	01/22/05	MLFM	EC-G
G1112-A	AC-LOW	2318-81	STW	raw water	Prep Lab I-5-C	Al, Cu, Zn, Cd, Pb	01/22/05	MLFM	G
G1112-B	AC-LOW	2318-82	STW	raw water	Prep Lab I-5-C	Al, Cu, Zn, Cd, Pb	01/22/05	MLFM	G
G1112-C	AC-LOW	2318-83	STW	raw water	Prep Lab I-5-C	Al, Cu, Zn, Cd, Pb	01/22/05	MLFM	G
G1113-A	GC-M	2318-84	STW	raw water	Prep Lab I-5-C	Al, Cu, Zn, Cd, Pb	01/22/05	MLFM	G
G1113-B	GC-M	2318-85	STW	raw water	Prep Lab I-5-C	Al, Cu, Zn, Cd, Pb	01/22/05	MLFM	G
G1113-C	GC-M	2318-86	STW	raw water	Prep Lab I-5-C	Al, Cu, Zn, Cd, Pb	01/22/05	MLFM	G
G1114-A	WADOT-01A	2318-87	SW	raw water	Prep Lab I-5-C	Al, Cu, Zn, Cd, Pb	01/22/05	MLFM	G
G1114-B	WADOT-01A	2318-88	SW	raw water	Prep Lab I-5-C	Al, Cu, Zn, Cd, Pb	01/22/05	MLFM	G
G1114-C	WADOT-01A	2318-89	SW	raw water	Prep Lab I-5-C	Al, Cu, Zn, Cd, Pb	01/22/05	MLFM	G
G1116-A	WADOT-02	2318-93	SW	raw water	Prep Lab I-5-C	Al, Cu, Zn, Cd, Pb	01/22/05	MLFM	G
G1116-B	WADOT-02	2318-94	SW	raw water	Prep Lab I-5-C	Al, Cu, Zn, Cd, Pb	01/22/05	MLFM	G
G1116-C	WADOT-02	2318-95	SW	raw water	Prep Lab I-5-C	Al, Cu, Zn, Cd, Pb	01/22/05	MLFM	G
G1117-A	WADOT-03	2318-96	SW	raw water	Prep Lab I-5-C	Al, Cu, Zn, Cd, Pb	01/22/05	MLFM	G
G1117-B	WADOT-03	2318-97	SW	raw water	Prep Lab I-5-D	Al, Cu, Zn, Cd, Pb	01/22/05	MLFM	G
G1117-C	WADOT-03	2318-98	SW	raw water	Prep Lab I-5-D	Al, Cu, Zn, Cd, Pb	01/22/05	MLFM	G
G1112-A DUP	AC-LOW	2318-99	STW	raw water	Prep Lab I-5-D	Al, Cu, Zn, Cd, Pb	01/22/05	MLFM	G
T1107	LMK 136	2318-100	SW	filt.water	Prep Lab I-5-C	Cd, Cu, Pb, Ag and Zn	01/22/05	MLFM	FC
T1108	GC	2318-101	STW	filt.water	Prep Lab I-5-C	Cd, Cu, Pb, Ag and Zn	01/22/05	MLFM	EC-I
T1109	GC-SAN	2318-102	STW	filt.water	Prep Lab I-5-C	Cd, Cu, Pb, Ag and Zn	01/22/05	MLFM	EC-I
T1111	LMK 122	2318-103	SW	filt.water	Prep Lab I-5-C	Cd, Cu, Pb, Ag and Zn	01/22/05	MLFM	FC
T1112	LMK 038	2318-104	SW	filt.water	Prep Lab I-5-C	Cd, Cu, Pb, Ag and Zn	01/22/05	MLFM	FC
T1113	PO-POBLVD	2318-105	SW	filt.water	Prep Lab I-5-C	Cd, Cu, Pb, Ag and Zn	01/22/05	MLFM	FC
T1115	AC-DUP	2318-106	STW	filt.water	Prep Lab I-5-C	Cd, Cu, Pb, Ag and Zn	01/22/05	MLFM	EC-I
T1110	KAR-WWTP	2318-108	WWTP	filt.water	Prep Lab I-5-C	Cd, Cu, Pb, Ag and Zn	01/22/05	MLFM	EC-G

SAMPLE LOGIN
(SOP# MSL-A-001)

Project Manager: Brandenberger
Date Received: 01/24/05
Batch: 3

PROJECT: FY05 Gorst Storm 2

SPONSOR CODE	Station ID	BATTELLE CODE	MATRIX	Portion	STORAGE LOCATION	PARAMETERS REQUESTED	COLLECTION DATE	INITIALS	TYPE
G1112-A	AC-LOW	2318-109	STW	filt.water	Prep Lab I-5-C	Cu, Zn	01/22/05	MLFM	G
G1112-B	AC-LOW	2318-110	STW	filt.water	Prep Lab I-5-C	Cu, Zn	01/22/05	MLFM	G
G1112-C	AC-LOW	2318-111	STW	filt.water	Prep Lab I-5-C	Cu, Zn	01/22/05	MLFM	G
G1113-A	GC-M	2318-112	STW	filt.water	Prep Lab I-5-C	Cu, Zn	01/22/05	MLFM	G
G1113-B	GC-M	2318-113	STW	filt.water	Prep Lab I-5-C	Cu, Zn	01/22/05	MLFM	G
G1113-C	GC-M	2318-114	STW	filt.water	Prep Lab I-5-C	Cu, Zn	01/22/05	MLFM	G
G1114-A	WADOT-01A	2318-115	SW	filt.water	Prep Lab I-5-C	Cu, Zn	01/22/05	MLFM	G
G1114-B	WADOT-01A	2318-116	SW	filt.water	Prep Lab I-5-C	Cu, Zn	01/22/05	MLFM	G
G1114-C	WADOT-01A	2318-117	SW	filt.water	Prep Lab I-5-C	Cu, Zn	01/22/05	MLFM	G
G1116-A	WADOT-02	2318-121	SW	filt.water	Prep Lab I-5-D	Cu, Zn	01/22/05	MLFM	G
G1116-B	WADOT-02	2318-122	SW	filt.water	Prep Lab I-5-D	Cu, Zn	01/22/05	MLFM	G
G1116-C	WADOT-02	2318-123	SW	filt.water	Prep Lab I-5-D	Cu, Zn	01/22/05	MLFM	G
G1117-A	WADOT-03	2318-124	SW	filt.water	Prep Lab I-5-D	Cu, Zn	01/22/05	MLFM	G
G1117-B	WADOT-03	2318-125	SW	filt.water	Prep Lab I-5-D	Cu, Zn	01/22/05	MLFM	G
G1117-C	WADOT-03	2318-126	SW	filt.water	Prep Lab I-5-D	Cu, Zn	01/22/05	MLFM	G
G1112-A DUP	AC-LOW	2318-127	STW	filt.water	Prep Lab I-5-D	Cu, Zn	01/22/05	MLFM	G
T1107	LMK 136	2318-128	SW	raw water	Outside Refrigerator	Organics	01/22/05	MLFM	FC
T1111	LMK 122	2318-129	SW	raw water	Outside Refrigerator	Organics	01/22/05	MLFM	FC
T1112	LMK 038	2318-130	SW	raw water	Outside Refrigerator	Organics	01/22/05	MLFM	FC
T1113	PO-POBLVD	2318-131	SW	raw water	Outside Refrigerator	Organics	01/22/05	MLFM	FC

SAMPLE LOGIN
(SOP# MSL-A-001)

Project Manager: Brandenberger
Date Received: 02/09/05
Batch: 4

PROJECT: FY05 Sinclair/Dyes Inlet Marine 1 - ENV200501

SPONSOR CODE	Station ID	BATTELLE CODE	MATRIX	Portion	STORAGE LOCATION	PARAMETERS REQUESTED	COLLECTION DATE	INITIALS	TYPE
M4100	P3	2318-132	MW	raw water	Prep Lab K-6-C	Al, Cd, Cu, Pb, Zn	02/09/05	MLFM	G
M4100	P3	2318-133	MW	filt. water	Prep Lab K-6-C	Cd, Cu, Pb, Zn	02/09/05	MLFM	G
M4101	P2	2318-134	MW	raw water	Prep Lab K-6-C	Al, Cd, Cu, Pb, Zn	02/09/05	MLFM	G
M4101	P2	2318-135	MW	filt. water	Prep Lab K-6-C	Cd, Cu, Pb, Zn	02/09/05	MLFM	G
M4102	P2-dup	2318-136	MW	raw water	Prep Lab K-6-C	Al, Cd, Cu, Pb, Zn	02/09/05	MLFM	G
M4102	P2-dup	2318-137	MW	filt. water	Prep Lab K-6-C	Cd, Cu, Pb, Zn	02/09/05	MLFM	G
M4103	P1	2318-138	MW	raw water	Prep Lab K-6-C	Al, Cd, Cu, Pb, Zn	02/09/05	MLFM	G
M4103	P1	2318-139	MW	filt. water	Prep Lab K-6-C	Cd, Cu, Pb, Zn	02/09/05	MLFM	G
M4104	M4	2318-140	MW	raw water	Prep Lab K-6-C	Al, Cd, Cu, Pb, Zn, and Hg	02/09/05	MLFM	G
M4104	M4	2318-141	MW	filt. water	Prep Lab K-6-C	Cd, Cu, Pb, Zn	02/09/05	MLFM	G
M4105	M3.3	2318-142	MW	raw water	Prep Lab K-6-C	Al, Cd, Cu, Pb, Zn	02/09/05	MLFM	G
M4105	M3.3	2318-143	MW	filt. water	Prep Lab K-6-C	Cd, Cu, Pb, Zn	02/09/05	MLFM	G
M4106	SN12	2318-144	MW	raw water	Prep Lab K-6-C	Al, Cd, Cu, Pb, Zn	02/09/05	MLFM	G
M4106	SN12	2318-145	MW	filt. water	Prep Lab K-6-C	Cd, Cu, Pb, Zn	02/09/05	MLFM	G
M4107	BJ-EST	2318-146	MW	raw water	Prep Lab K-6-C	Al, Cd, Cu, Pb, Zn	02/09/05	MLFM	G
M4107	BJ-EST	2318-147	MW	filt. water	Prep Lab K-6-C	Cd, Cu, Pb, Zn	02/09/05	MLFM	G
M4108	M3.1	2318-148	MW	raw water	Prep Lab K-6-C	Al, Cd, Cu, Pb, Zn, and Hg	02/09/05	MLFM	G
M4108	M3.1	2318-149	MW	filt. water	Prep Lab K-6-C	Cd, Cu, Pb, Zn	02/09/05	MLFM	G
M4109	M6	2318-150	MW	raw water	Prep Lab K-6-C	Al, Cd, Cu, Pb, Zn, and Hg	02/09/05	MLFM	G
M4109	M6	2318-151	MW	filt. water	Prep Lab K-6-C	Cd, Cu, Pb, Zn	02/09/05	MLFM	G
M4110	DY01	2318-152	MW	raw water	Prep Lab J-3-D	Al, Cd, Cu, Pb, Zn	02/09/05	MLFM	G
M4110	DY01	2318-153	MW	filt. water	Prep Lab J-3-D	Cd, Cu, Pb, Zn	02/09/05	MLFM	G
M4112	PLO1	2318-154	MW	raw water	Prep Lab J-3-D	Al, Cd, Cu, Pb, Zn	02/09/05	MLFM	G
M4112	PLO1	2318-155	MW	filt. water	Prep Lab J-3-D	Cd, Cu, Pb, Zn	02/09/05	MLFM	G

cc: Project Manager/Central File
Login File 2318

SAMPLE LOGIN
(SOP# MSL-A-001)

Project Manager: Brandenberger
Date Received: 02/09/05
Batch: 4

PROJECT: FY05 Sinclair/Dyes Inlet Marine 1 - ENV200501

SPONSOR CODE	Station ID	BATTELLE CODE	MATRIX	Portion	STORAGE LOCATION	PARAMETERS REQUESTED	COLLECTION DATE	INITIALS	TYPE
M4113	PLO2	2318-156	MW	raw water	Prep Lab J-3-D	Al, Cd, Cu, Pb, Zn	02/09/05	MLFM	G
M4113	PLO2	2318-157	MW	filt. water	Prep Lab J-3-D	Cd, Cu, Pb, Zn	02/09/05	MLFM	G
M4114	PLO3	2318-158	MW	raw water	Prep Lab J-3-D	Al, Cd, Cu, Pb, Zn	02/09/05	MLFM	G
M4114	PLO3	2318-159	MW	filt. water	Prep Lab J-3-D	Cd, Cu, Pb, Zn	02/09/05	MLFM	G

SAMPLE LOGIN
(SOP# MSL-A-001)

Project Manager: Brandenberger
Date Received: 3/2/05
Batch: 5

PROJECTFY05 Sinclair Storm 1

SPONSOR CODE	Site Description	BATTELLE CODE	MATRIX	Portion	STORAGE LOCATION	PARAMETERS REQUESTED	Start Date	Start Time	INITIALS	TYPE
T1200	BL	2318*160	STW	TME	L Floor B	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	02/28/05	1538	CS	EC-I
T1200	BL	2318*161	STW	DME	L Floor B	Cd, Cu, Pb, Ag and Zn	02/28/05	1538	CS	EC-I
T1201	OC	2318*162	STW	TME	L Floor B	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	02/28/05	1558	CS	EC-I
T1201	OC	2318*163	STW	DME	L Floor B	Cd, Cu, Pb, Ag and Zn	02/28/05	1558	CS	EC-I
T1202	B-ST28	2318*164	SW	TME	L Floor B	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	02/28/05	1521	CS	FC
T1202	B-ST28	2318*165	SW	DME	L Floor B	Cd, Cu, Pb, Ag and Zn	02/28/05	1521	CS	FC
T1203	B-ST/CSO16	2318*166	SW	TME	L Floor B	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	02/28/05	1452	CS	FC
T1203	B-ST/CSO16	2318*167	SW	DME	L Floor B	Cd, Cu, Pb, Ag and Zn	02/28/05	1452	CS	FC
T1204	PSNS015	2318*168	SW	TME	L Floor B	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	02/28/05	1741	CS	FC
T1204	PSNS015	2318*169	SW	DME	L Floor B	Cd, Cu, Pb, Ag and Zn	02/28/05	1741	CS	FC
T1205	PSNS124	2318*170	SW	TME	L Floor B	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	02/28/05	1726	CS	FC
T1205	PSNS124	2318*171	SW	DME	L Floor B	Cd, Cu, Pb, Ag and Zn	02/28/05	1726	CS	FC
T1206	PSNS126	2318*172	SW	TME	L Floor B	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	02/28/05	1732	CS	FC
T1206	PSNS126	2318*173	SW	DME	L Floor B	Cd, Cu, Pb, Ag and Zn	02/28/05	1732	CS	FC
G1200	B-WWTP	2318*174	WWTP	TME	L Floor B	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	03/01/05	725	CS	EC-G
G1200	B-WWTP	2318*175	WWTP	DME	L Floor B	Cd, Cu, Pb, Ag and Zn	03/01/05	725	CS	EC-G
G1201	KAR-WWTP	2318*176	WWTP	TME	L Floor B	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	03/01/05	800	CS	EC-G
G1201	KAR-WWTP	2318*177	WWTP	DME		Cd, Cu, Pb, Ag and Zn	03/01/05	800	CS	EC-G
G1202	B-ETF	2318*178	NOT COLLECTED							
G1202	B-ETF	2318*179	NOT COLLECTED							
G1205-A	WADOT-01A	2318*180	SW	TME	L Floor B	Al, Cu, Zn, Cd, Pb	02/28/05	1705	CS	G
G1205-A	WADOT-01A	2318*181	SW	DME	L Floor B	Cu, Zn	02/28/05	1705	CS	G
G1205-B	WADOT-01A	2318*182	SW	TME	L Floor B	Al, Cu, Zn, Cd, Pb	02/28/05	2238	CS	G
G1205-B	WADOT-01A	2318*183	SW	DME	L Floor B	Cu, Zn	02/28/05	2238	CS	G
G1205-C	WADOT-01A	2318*184	SW	TME	K Floor B	Al, Cu, Zn, Cd, Pb	03/01/05	1021	CS	G
G1205-C	WADOT-01A	2318*185	SW	DME	K Floor B	Cu, Zn	03/01/05	1021	CS	G
G1206-A	WADOT-01B	2318*186	NOT COLLECTED							
G1206-A	WADOT-01B	2318*187	NOT COLLECTED							
G1206-B	WADOT-01B	2318*188	NOT COLLECTED							

SAMPLE LOGIN
(SOP# MSL-A-001)

Project Manager: Brandenberger
Date Received: 3/2/05
Batch: 5

PROJECTFY05 Sinclair Storm 1

SPONSOR CODE	Site Description	BATTELLE CODE	MATRIX	Portion	STORAGE LOCATION	PARAMETERS REQUESTED	Start Date	Start Time	INITIALS	TYPE
G1206-B	WADOT-01B	2318*189	NOT COLLECTED							
G1206-C	WADOT-01B	2318*190	NOT COLLECTED							
G1206-C	WADOT-01B	2318*191	NOT COLLECTED							
G1207-A	WADOT-02	2318*192	SW	TME	K Floor B	Al, Cu, Zn, Cd, Pb	02/28/05	1645	CS	G
G1207-A	WADOT-02	2318*193	SW	DME	K Floor B	Cu, Zn	02/28/05	1645	CS	G
G1207-B	WADOT-02	2318*194	SW	TME	K Floor B	Al, Cu, Zn, Cd, Pb	02/28/05	2206	CS	G
G1207-B	WADOT-02	2318*195	SW	DME	K Floor B	Cu, Zn	02/28/05	2206	CS	G
G1207-C	WADOT-02	2318*196	SW	TME	K Floor B	Al, Cu, Zn, Cd, Pb	03/01/05	1010	CS	G
G1207-C	WADOT-02	2318*197	SW	DME	K Floor B	Cu, Zn	03/01/05	1010	CS	G
G1208-A	WADOT-03	2318*198	SW	TME	K Floor B	Al, Cu, Zn, Cd, Pb	02/28/05	1655	CS	G
G1208-A	WADOT-03	2318*199	SW	DME	K Floor B	Cu, Zn	02/28/05	1655	CS	G
G1208-B	WADOT-03	2318*200	SW	TME	K Floor B	Al, Cu, Zn, Cd, Pb	02/28/05	2216	CS	G
G1208-B	WADOT-03	2318*201	SW	DME	K Floor B	Cu, Zn	02/28/05	2216	CS	G
G1208-C	WADOT-03	2318*202	SW	TME	K Floor B	Al, Cu, Zn, Cd, Pb	03/01/05	1015	CS	G
G1208-C	WADOT-03	2318*203	SW	DME	K Floor B	Cu, Zn	03/01/05	1015	CS	G
<u>SEAWATER:</u>										
M4150	P3	2318*204	MW	TME	L Floor D	Al, Cd, Cu, Pb, Zn	03/02/05	653	CS	G
M4150	P3	2318*205	MW	DME	L Floor D	Cd, Cu, Pb, Zn	03/02/05	653	CS	G
M4151	P2	2318*206	MW	TME	L Floor D	Al, Cd, Cu, Pb, Zn	03/02/05	710	CS	G
M4151	P2	2318*207	MW	DME	L Floor D	Cd, Cu, Pb, Zn	03/02/05	710	CS	G
M4154	M4 DUP	2318*208	MW	TME	L Floor D	Al, Cd, Cu, Pb, Zn, and Hg	03/02/05	823	CS	G
M4154	M4 DUP	2318*209	MW	DME	L Floor D	Cd, Cu, Pb, Zn	03/02/05	823	CS	G
M4152	P1	2318*210	MW	TME	L Floor D	Al, Cd, Cu, Pb, Zn	03/02/05	752	CS	G
M4152	P1	2318*211	MW	DME	L Floor D	Cd, Cu, Pb, Zn	03/02/05	752	CS	G
M4153	M4	2318*212	MW	TME	L Floor D	Al, Cd, Cu, Pb, Zn	03/02/05	823	CS	G
M4153	M4	2318*213	MW	DME	L Floor D	Cd, Cu, Pb, Zn	03/02/05	823	CS	G
M4155	M3.3	2318*214	MW	TME	L Floor D	Al, Cd, Cu, Pb, Zn	03/02/05	846	CS	G
M4155	M3.3	2318*215	MW	DME	L Floor D	Cd, Cu, Pb, Zn	03/02/05	846	CS	G
M4156	SN12	2318*216	MW	TME	L Floor D	Al, Cd, Cu, Pb, Zn	03/02/05	900	CS	G
M4156	SN12	2318*217	MW	DME	L Floor D	Cd, Cu, Pb, Zn	03/02/05	900	CS	G
M4157	BJ-EST	2318*218	MW	TME	L Floor D	Al, Cd, Cu, Pb, Zn	03/02/05	914	CS	G
M4157	BJ-EST	2318*219	MW	DME	L Floor D	Cd, Cu, Pb, Zn	03/02/05	914	CS	G

cc: Project Manager/Central File
Login File 2318

SAMPLE LOGIN
(SOP# MSL-A-001)

Project Manager: Brandenberger
Date Received: 3/2/05
Batch: 5

PROJECTFY05 Sinclair Storm 1

SPONSOR CODE	Site Description	BATTELLE CODE	MATRIX	Portion	STORAGE LOCATION	PARAMETERS REQUESTED	Start Date	Start Time	INITIALS	TYPE
M4158	M3.1	2318*220	MW	TME	L Floor D	Al, Cd, Cu, Pb, Zn, and Hg	03/02/05	947	CS	G
M4158	M3.1	2318*221	MW	DME	L Floor D	Cd, Cu, Pb, Zn	03/02/05	947	CS	G
M4159	M6	2318*222	MW	TME	L Floor C	Al, Cd, Cu, Pb, Zn, and Hg	03/02/05	1117	CS	G
M4159	M6	2318*223	MW	DME	L Floor C	Cd, Cu, Pb, Zn	03/02/05	1117	CS	G
M4160	DY01	2318*224	MW	TME	L Floor C	Al, Cd, Cu, Pb, Zn	03/02/05	958	CS	G
M4160	DY01	2318*225	MW	DME	L Floor C	Cd, Cu, Pb, Zn	03/02/05	958	CS	G
M4163	PL05	2318*226	MW	TME	L Floor C	Al, Cd, Cu, Pb, Zn	03/02/05	931	CS	G
M4163	PL05	2318*227	MW	DME	L Floor C	Cd, Cu, Pb, Zn	03/02/05	931	CS	G
M4164	PL06	2318*228	MW	TME	L Floor C	Al, Cd, Cu, Pb, Zn	03/02/05	1051	CS	G
M4164	PL06	2318*229	MW	DME	L Floor C	Cd, Cu, Pb, Zn	03/02/05	1051	CS	G
M4162	PL04	2318*230	MW	TME	L Floor C	Al, Cd, Cu, Pb, Zn	03/02/05	840	CS	G
M4162	PL04	2318*231	MW	DME	L Floor C	Cd, Cu, Pb, Zn	03/02/05	840	CS	G
<u>ORGANICS:</u>										
T1200	BL	2318*232	STW	NA	Outside Ref	Organics	02/28/05	1538	CS	EC-I
T1201	OC	2318*233	STW	NA	Outside Ref	Organics	02/28/05	1558	CS	EC-I
T1202	B-ST28	2318*234	SW	NA	Outside Ref	Organics	02/28/05	1521	CS	FC
T1203	B-ST/CSO16	2318*235	SW	NA	Outside Ref	Organics	02/28/05	1452	CS	FC
T1204	PSNS015	2318*236	SW	NA	Outside Ref	Organics	02/28/05	1741	CS	FC
T1205	PSNS124	2318*237	SW	NA	Outside Ref	Organics	02/28/05	1726	CS	FC
T1206	PSNS126	2318*238	SW	NA	Outside Ref	Organics	02/28/05	1732	CS	FC

SAMPLE LOGIN
(SOP# MSL-A-001)

Project Manager: Brandenberger
Date Received: 03/21/05
Batch:

PROJECT: Sinclair Marine 3 FY05

SPONSOR CODE	Site Description	BATTELLE CODE	MATRIX	STORAGE LOCATION	PARAMETERS REQUESTED	COLLECTION DATE	COLLECTION Time	INITIALS
M4200	P3	2318*239	Total	Prep Lab K-2-C	Al, Cd, Cu, Pb, Zn	03/19/05	646	CS
M4200	P3	2318*240	Dissolved	Prep Lab K-2-C	Cd, Cu, Pb, Zn	03/19/05	646	CS
M4201	P2	2318*241	Total	Prep Lab K-2-C	Al, Cd, Cu, Pb, Zn	03/19/05	710	CS
M4201	P2	2318*242	Dissolved	Prep Lab K-2-C	Cd, Cu, Pb, Zn	03/19/05	710	CS
M4202	P1	2318*243	Total	Prep Lab K-2-C	Al, Cd, Cu, Pb, Zn	03/19/05	747	CS
M4202	P1	2318*244	Dissolved	Prep Lab K-2-C	Cd, Cu, Pb, Zn	03/19/05	747	CS
M4203	M4	2318*245	Total	Prep Lab K-2-C	Al, Cd, Cu, Pb, Zn, and Hg	03/19/05	829	CS
M4203	M4	2318*246	Dissolved	Prep Lab K-2-C	Cd, Cu, Pb, Zn	03/19/05	829	CS
M4204	M3.3	2318*247	Total	Prep Lab K-2-C	Al, Cd, Cu, Pb, Zn	03/19/05	844	CS
M4204	M3.3	2318*248	Dissolved	Prep Lab K-2-C	Cd, Cu, Pb, Zn	03/19/05	844	CS
M4205	SN12	2318*249	Total	Prep Lab K-2-C	Al, Cd, Cu, Pb, Zn	03/19/05	859	CS
M4205	SN12	2318*250	Dissolved	Prep Lab K-2-C	Cd, Cu, Pb, Zn	03/19/05	859	CS
M4206	SN12DUP	2318*251	Total	Prep Lab K-2-C	Al, Cd, Cu, Pb, Zn	03/19/05	859	CS
M4206	SN12DUP	2318*252	Dissolved	Prep Lab K-2-C	Cd, Cu, Pb, Zn	03/19/05	859	CS
M4207	BJ-EST	2318*253	Total	Prep Lab K-2-C	Al, Cd, Cu, Pb, Zn	03/19/05	913	CS
M4207	BJ-EST	2318*254	Dissolved	Prep Lab K-2-C	Cd, Cu, Pb, Zn	03/19/05	913	CS
M4208	M3.1	2318*255	Total	Prep Lab K-2-C	Al, Cd, Cu, Pb, Zn, and Hg	03/19/05	940	CS
M4208	M3.1	2318*256	Dissolved	Prep Lab K-2-C	Cd, Cu, Pb, Zn	03/19/05	940	CS
M4209	M6	2318*257	Total	Prep Lab K-2-C	Al, Cd, Cu, Pb, Zn, and Hg	03/19/05	1051	CS
M4209	M6	2318*258	Dissolved	Prep Lab K-2-C	Cd, Cu, Pb, Zn	03/19/05	1051	CS
M4210	DY01	2318*259	Total	Prep Lab K-2-C	Al, Cd, Cu, Pb, Zn	03/19/05	952	CS
M4210	DY01	2318*260	Dissolved	Prep Lab K-1-B	Cd, Cu, Pb, Zn	03/19/05	952	CS
M4212	PL07	2318*261	Total	Prep Lab K-1-B	Al, Cd, Cu, Pb, Zn	03/19/05	925	CS
M4212	PL07	2318*262	Dissolved	Prep Lab K-1-B	Cd, Cu, Pb, Zn	03/19/05	925	CS
M4213	PL08	2318*263	Total	Prep Lab K-1-B	Al, Cd, Cu, Pb, Zn	03/19/05	1030	CS
M4213	PL08	2318*264	Dissolved	Prep Lab K-1-B	Cd, Cu, Pb, Zn	03/19/05	1030	CS
M4214	PL09	2318*265	Total	Prep Lab K-1-B	Al, Cd, Cu, Pb, Zn	03/19/05	1030	CS
M4214	PL09	2318*266	Dissolved	Prep Lab K-1-B	Cd, Cu, Pb, Zn	03/19/05	1030	CS

SAMPLE LOGIN
(SOP# MSL-A-001)

Project Manager: Brandenberger
Date Received: 03/21/05
Batch: 6

PROJECT: Sinclair Storm 2 FY05

SPONSOR CODE	Site Description	BATTELLE CODE	MATRIX	Portion	STORAGE LOCATION	PARAMETERS REQUESTED	INITIALS	Start Date	Start Time	TYPE
T1209	B-ST28	2318*267	SW	TME	Prep Lab K-1-B	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	CS,MLFM	03/19/05	1254	FC
T1209	B-ST28	2318*268	SW	DME	Prep Lab K-1-B	Cd, Cu, Pb, Ag and Zn	CS,MLFM	03/19/05	1254	FC
T1210	B-ST/CSO16	2318*269	SW	TME	Prep Lab K-1-B	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	CS,MLFM	03/19/05	1308	FC
T1210	B-ST/CSO16	2318*270	SW	DME	Prep Lab K-1-B	Cd, Cu, Pb, Ag and Zn	CS,MLFM	03/19/05	1308	FC
T1211	PSNS015	2318*271	SW	TME	Prep Lab K-1-B	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	CS,MLFM	03/19/05	1238	FC
T1211	PSNS015	2318*272	SW	DME	Prep Lab K-1-B	Cd, Cu, Pb, Ag and Zn	CS,MLFM	03/19/05	1238	FC
T1212	PSNS124	2318*273	SW	TME	Prep Lab K-1-B	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	CS,MLFM	03/19/05	1230	FC
T1212	PSNS124	2318*274	SW	DME	Prep Lab K-1-B	Cd, Cu, Pb, Ag and Zn	CS,MLFM	03/19/05	1230	FC
T1213	PSNS126	2318*275	SW	TME	Prep Lab K-1-B	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	CS,MLFM	03/19/05	1227	FC
T1213	PSNS126	2318*276	SW	DME	Prep Lab K-1-B	Cd, Cu, Pb, Ag and Zn	CS,MLFM	03/19/05	1227	FC
T1207	BL	2318*277	STW	TME	Prep Lab K-1-B	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	CS,MLFM	03/19/05	1240	EC-I
T1207	BL	2318*278	STW	DME	Prep Lab K-1-B	Cd, Cu, Pb, Ag and Zn	CS,MLFM	03/19/05	1240	EC-I
T1208	OC	2318*279	STW	TME	Prep Lab K-1-B	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	CS,MLFM	03/19/05	1236	EC-I
T1208	OC	2318*280	STW	DME	Prep Lab K-1-A	Cd, Cu, Pb, Ag and Zn	CS,MLFM	03/19/05	1236	EC-I
T1221	B-ST12	2318*281	SW	TME	Prep Lab K-1-A	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	CS,MLFM	03/19/05	1318	FC
T1221	B-ST12	2318*282	SW	DME	Prep Lab K-1-A	Cd, Cu, Pb, Ag and Zn	CS,MLFM	03/19/05	1318	FC
G1210	KAR-WWTP	2318*283	WWTP	TME	Prep Lab K-1-A	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	CS,MLFM	03/19/05	1300	EC-G
G1210	KAR-WWTP	2318*284	WWTP	DME	Prep Lab K-1-A	Cd, Cu, Pb, Ag and Zn	CS,MLFM	03/19/05	1300	EC-G
G1214A	WADOT-01A	2318*285	SW	TME	Prep Lab K-1-A	Al, Cu, Zn, Cd, Pb	CS,MLFM	03/19/05	1428	G
G1214A	WADOT-01A	2318*286	SW	DME	Prep Lab K-1-A	Cu, Zn	CS,MLFM	03/19/05	1428	G
G1214B	WADOT-01A	2318*287	SW	TME	Prep Lab K-1-A	Al, Cu, Zn, Cd, Pb	CS,MLFM	03/19/05	1815	G
G1214B	WADOT-01A	2318*288	SW	DME	Prep Lab K-1-A	Cu, Zn	CS,MLFM	03/19/05	1815	G
G1214C	WADOT-01A	2318*289	SW	TME	Prep Lab K-1-A	Al, Cu, Zn, Cd, Pb	CS,MLFM	03/20/05	1050	G
G1214C	WADOT-01A	2318*290	SW	DME	Prep Lab K-1-A	Cu, Zn	CS,MLFM	03/20/05	1050	G
G1216A	WADOT-02	2318*297	SW	TME	Prep Lab K-1-A	Al, Cu, Zn, Cd, Pb	CS,MLFM	03/19/05	1420	G
G1216A	WADOT-02	2318*298	SW	DME	Prep Lab K-1-A	Cu, Zn	CS,MLFM	03/19/05	1420	G
G1216B	WADOT-02	2318*299	SW	TME	Prep Lab K-1-A	Al, Cu, Zn, Cd, Pb	CS,MLFM	03/19/05	1800	G
G1216B	WADOT-02	2318*300	SW	DME	Prep Lab K-1-A	Cu, Zn	CS,MLFM	03/19/05	1800	G
G1216C	WADOT-02	2318*301	SW	TME	Prep Lab K-1-A	Al, Cu, Zn, Cd, Pb	CS,MLFM	03/20/05	1035	G
G1216C	WADOT-02	2318*302	SW	DME	Prep Lab I-3-C	Cu, Zn	CS,MLFM	03/20/05	1035	G
G1217A	WADOT-03	2318*303	SW	TME	Prep Lab I-3-C	Al, Cu, Zn, Cd, Pb	CS,MLFM	03/19/05	1412	G

SAMPLE LOGIN
(SOP# MSL-A-001)

Project Manager: Brandenberger
Date Received: 03/21/05
Batch: 6

PROJECT: Sinclair Storm 2 FY05

SPONSOR CODE	Site Description	BATTELLE CODE	MATRIX	Portion	STORAGE LOCATION	PARAMETERS REQUESTED	INITIALS	Start Date	Start Time	TYPE
G1217A	WADOT-03	2318*304	SW	DME	Prep Lab I-3-C	Cu, Zn	CS,MLFM	03/19/05	1412	G
G1217B	WADOT-03	2318*305	SW	TME	Prep Lab I-3-C	Al, Cu, Zn, Cd, Pb	CS,MLFM	03/19/05	1805	G
G1217B	WADOT-03	2318*306	SW	DME	Prep Lab I-3-C	Cu, Zn	CS,MLFM	03/19/05	1805	G
G1217C	WADOT-03	2318*307	SW	TME	Prep Lab I-3-C	Al, Cu, Zn, Cd, Pb	CS,MLFM	03/20/05	1040	G
G1217C	WADOT-03	2318*308	SW	DME	Prep Lab I-3-C	Cu, Zn	CS,MLFM	03/20/05	1040	G
G1214B DUP	WADOT-01A	2318*316	SW	DME	Prep Lab I-3-C	Cu, Zn	CS,MLFM	03/19/05	1815	G
G1214B DUP	WADOT-01A	2318*317	SW	TME	Prep Lab I-3-C	Al, Cu, Zn, Cd, Pb	CS,MLFM	03/19/05	1815	G
G1214C DUP	WADOT-01A	2318*318	SW	DME	Prep Lab I-3-C	Cu, Zn	CS,MLFM	03/20/05	1052	G
G1214C DUP	WADOT-01A	2318*319	SW	TME	Prep Lab I-3-C	Al, Cu, Zn, Cd, Pb	CS,MLFM	03/20/05	1052	G
<u>ORGANICS</u>										
T1209	B-ST28	2318*309	SW	Freshwater	Refrigerator	ORGANICS	CS,MLFM	03/19/05	1254	FC
T1210	B-ST/CSO16	2318*310	SW	Freshwater	Refrigerator	ORGANICS	CS,MLFM	03/19/05	1308	FC
T1211	PSNS015	2318*311	SW	Freshwater	Refrigerator	ORGANICS	CS,MLFM	03/19/05	1238	FC
T1212	PSNS124	2318*312	SW	Freshwater	Refrigerator	ORGANICS	CS,MLFM	03/19/05	1230	FC
T1213	PSNS126	2318*313	SW	Freshwater	Refrigerator	ORGANICS	CS,MLFM	03/19/05	1227	FC
T1207	BL	2318*314	STW	Freshwater	Refrigerator	No not Analyze	CS,MLFM	03/19/05	1240	EC-I
T1208	OC	2318*315	STW	Freshwater	Refrigerator	No not Analyze	CS,MLFM	03/19/05	1236	EC-I
T1221	B-ST12	2318*320	SW	Freshwater	Refrigerator	ORGANICS	CS,MLFM	03/19/05	1318	FC

SAMPLE LOGIN
(SOP# MSL-A-001)

Project Manager: Brandenberger
Date Received: 03/27/05
Batch:

FW = Freshwater

PROJECT: FY 05 Dyes Storm 1

SPONSOR CODE	Site Description	BATTELLE CODE	MATRIX	Portion	STORAGE LOCATION	PARAMETERS REQUESTED	INITIALS	Start Date	Start Time	Sample Type
T1305	SW6	2318*321	SW	Total - FW	Prep Lab I-1-C	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	JB	03/26/05	140	FC
T1305	SW6	2318*322	SW	Diss - FW	Prep Lab I-1-C	Cd, Cu, Pb, Ag and Zn	JB	03/26/05	140	FC
T1306	B-ST12	2318*323	SW	Total - FW	Prep Lab I-1-C	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	JB	03/26/05	136	FC
T1306	B-ST12	2318*324	SW	Diss - FW	Prep Lab I-1-C	Cd, Cu, Pb, Ag and Zn	JB	03/26/05	136	FC
T1301	BA	2318*327	STW	Total - FW	Prep Lab I-1-C	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	JB	03/26/05	142	EC-I
T1301	BA	2318*328	STW	Diss - FW	Prep Lab I-1-C	Cd, Cu, Pb, Ag and Zn	JB	03/26/05	142	EC-I
T1302	CC	2318*329	STW	Total - FW	Prep Lab I-1-C	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	JB	03/26/05	133	EC-I
T1302	CC	2318*330	STW	Diss - FW	Prep Lab I-1-C	Cd, Cu, Pb, Ag and Zn	JB	03/26/05	133	EC-I
T1303	SC	2318*331	STW	Total - FW	Prep Lab I-1-C	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	JB	03/26/05	834	EC-I
T1303	SC	2318*332	STW	Diss - FW	Prep Lab I-1-C	Cd, Cu, Pb, Ag and Zn	JB	03/26/05	834	EC-I
T1304	CH	2318*333	STW	Total - FW	Prep Lab I-1-C	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	JB	03/26/05	56	EC-I
T1304	CH	2318*334	STW	Diss - FW	Prep Lab I-1-C	Cd, Cu, Pb, Ag and Zn	JB	03/26/05	56	EC-I
G1210	KAR-WWTP	2318*335	WWTP	Total - FW	Prep Lab J-2-B	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	JB	03/26/05	800	EC-G
G1210	KAR-WWTP	2318*336	WWTP	Diss - FW	Prep Lab J-2-B	Cd, Cu, Pb, Ag and Zn	JB	03/26/05	800	EC-G
T1307-A	B-ST01	2318*337	SW	Total - FW	Prep Lab I-1-C	Al, As, Cd, Cr, Cu, Pb, Ag, Zn	JB	03/26/05	115	G
T1307-A	B-ST01	2318*338	SW	Diss - FW	Prep Lab I-1-C	Cd, Cu, Pb, Ag and Zn	JB	03/26/05	115	G
T1307-B	B-ST01	2318*339	SW	Total - FW	Prep Lab I-1-C	Al, As, Cd, Cr, Cu, Pb, Ag, Zn	JB	03/26/05	945	G
T1307-B	B-ST01	2318*340	SW	Diss - FW	Prep Lab I-1-B	Cd, Cu, Pb, Ag and Zn	JB	03/26/05	945	G
T1307-C	B-ST01	2318*341	SW	Total - FW	Prep Lab I-1-B	Al, As, Cd, Cr, Cu, Pb, Ag, Zn	JB	03/26/05	1845	G
T1307-C	B-ST01	2318*342	SW	Diss - FW	Prep Lab I-1-B	Cd, Cu, Pb, Ag and Zn	JB	03/26/05	1845	G
T1307	B-ST01	2318*371	SW	Total - FW	Prep Lab I-1-B	Hg	JB	03/26/05	115	EC-G
<u>ORGANICS</u>										
T1305	SW6	2318*374	SW	Total - FW	Outside Fridge	ORGANICS	JB	03/26/05	140	FC
T1306	B-ST12	2318*376	SW	Total - FW	Outside Fridge	ORGANICS	JB	03/26/05	136	FC
T1301	BA	2318*380	STW	Total - FW	Outside Fridge	ORGANICS	JB	03/26/05	142	EC-I
T1302	CC	2318*382	STW	Total - FW	Outside Fridge	ORGANICS	JB	03/26/05	133	EC-I
T1304	CH	2318*386	STW	Total - FW	Outside Fridge	ORGANICS	JB	03/26/05	56	EC-I
T1307	B-ST01	2318*389	SW	Total - FW	Outside Fridge	ORGANICS	JB	03/26/05	115	EC-G

cc: Project Manager/Central File
Login File

SAMPLE LOGIN

(SOP# MSL-A-001)

Project Manager: Brandenberger
Date Received: 03/28/05
Batch: 8

MW = Seawater

PROJECT: Sinclair Marine 4 FY05

SPONSOR CODE	Site Description	BATTELLE CODE	MATRIX	STORAGE LOCATION	PARAMETERS REQUESTED	COLLECTION DATE	COLLECTION TIME	INITIALS
M4250	P3	2318*343	Total - MW	Prep Lab J-2-B	Al, Cd, Cu, Pb, Zn	03/28/05	653	JB
M4250	P3	2318*344	Diss - MW	Prep Lab J-2-B	Cd, Cu, Pb, Zn	03/28/05	653	JB
M4251	P2	2318*345	Total - MW	Prep Lab J-2-B	Al, Cd, Cu, Pb, Zn	03/28/05	637	JB
M4251	P2	2318*346	Diss - MW	Prep Lab J-2-B	Cd, Cu, Pb, Zn	03/28/05	637	JB
M4252	P1	2318*347	Total - MW	Prep Lab J-2-B	Al, Cd, Cu, Pb, Zn	03/28/05	721	JB
M4252	P1	2318*348	Diss - MW	Prep Lab J-2-B	Cd, Cu, Pb, Zn	03/28/05	721	JB
M4253	M4	2318*349	Total - MW	Prep Lab J-2-B	Al, Cd, Cu, Pb, Zn, and Hg	03/28/05	814	JB
M4253	M4	2318*350	Diss - MW	Prep Lab J-2-B	Cd, Cu, Pb, Zn	03/28/05	814	JB
M4254	M3.3	2318*351	Total - MW	Prep Lab J-2-B	Al, Cd, Cu, Pb, Zn	03/28/05	857	JB
M4254	M3.3	2318*352	Diss - MW	Prep Lab J-2-B	Cd, Cu, Pb, Zn	03/28/05	857	JB
M4255	SN12	2318*353	Total - MW	Prep Lab J-2-B	Al, Cd, Cu, Pb, Zn	03/28/05	910	JB
M4255	SN12	2318*354	Diss - MW	Prep Lab J-2-B	Cd, Cu, Pb, Zn	03/28/05	910	JB
M4256	BJ-EST	2318*355	Total - MW	Prep Lab J-4-C	Al, Cd, Cu, Pb, Zn	03/28/05	922	JB
M4256	BJ-EST	2318*356	Diss - MW	Prep Lab J-4-C	Cd, Cu, Pb, Zn	03/28/05	922	JB
M4257	M3.1	2318*357	Total - MW	Prep Lab J-4-C	Al, Cd, Cu, Pb, Zn, and Hg	03/28/05	942	JB
M4257	M3.1	2318*358	Diss - MW	Prep Lab J-4-C	Cd, Cu, Pb, Zn	03/28/05	942	JB
M4258	M3.1DUP	2318*359	Total - MW	Prep Lab J-4-C	Al, Cd, Cu, Pb, Zn, and Hg	03/28/05	942	JB
M4258	M3.1DUP	2318*360	Diss - MW	Prep Lab J-4-C	Cd, Cu, Pb, Zn	03/28/05	942	JB
M4259	M6	2318*361	Total - MW	Prep Lab J-4-C	Al, Cd, Cu, Pb, Zn	03/28/05	1057	JB
M4259	M6	2318*362	Diss - MW	Prep Lab J-4-C	Cd, Cu, Pb, Zn	03/28/05	1057	JB
M4260	DY01	2318*363	Total - MW	Prep Lab J-4-C	Al, Cd, Cu, Pb, Zn	03/28/05	1002	JB
M4260	DY01	2318*364	Diss - MW	Prep Lab J-2-C	Cd, Cu, Pb, Zn	03/28/05	1002	JB
M4262	PL10	2318*365	Total - MW	Prep Lab J-2-C	Al, Cd, Cu, Pb, Zn	03/28/05	754	JB
M4262	PL10	2318*366	Diss - MW	Prep Lab J-2-C	Cd, Cu, Pb, Zn	03/28/05	754	JB
M4263	PL11	2318*367	Total - MW	Prep Lab J-2-C	Al, Cd, Cu, Pb, Zn	03/28/05	831	JB
M4263	PL11	2318*368	Diss - MW	Prep Lab J-2-C	Cd, Cu, Pb, Zn	03/28/05	831	JB
M4264	PL12	2318*369	Total - MW	Prep Lab J-2-C	Al, Cd, Cu, Pb, Zn	03/28/05	846	JB
M4264	PL12	2318*370	Diss - MW	Prep Lab J-2-C	Cd, Cu, Pb, Zn	03/28/05	846	JB

SAMPLE LOGIN

(SOP# MSL-A-001)

Project Manager: Brandenberger

Date Received: 4/1/2005

Batch: 10

PROJECT: FY05 Dyes Storm 2

FW = Freshwater

SPONSOR CODE	Site Description	BATTELLE CODE	MATRIX	Portion	STORAGE LOCATION	PARAMETERS REQUESTED	INITIALS	Start Date	Start Time	Sample Type
T1313	SW6	2318*391	SW	Total - FW	L-1-C	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	JMB	03/31/05	2036	FC
T1313	SW6	2318*392	SW	Diss - FW	L-1-C	Cd, Cu, Pb, Ag and Zn	JMB	03/31/05	2036	FC
T1314	B-ST12	2318*393	SW	Total - FW	L-1-C	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	JMB	03/31/05	1907	FC
T1314	B-ST12	2318*394	SW	Diss - FW	L-1-C	Cd, Cu, Pb, Ag and Zn	JMB	03/31/05	1907	FC
T1308	BI-SBC	2318*395	STW	Total - FW	L-1-C	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	JMB	03/31/05	1849	FC
T1308	BI-SBC	2318*396	STW	Diss - FW	L-1-C	Cd, Cu, Pb, Ag and Zn	JMB	03/31/05	1849	FC
T1309	BA	2318*397	STW	Total - FW	L-1-C	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	JMB	03/31/05	2000	EC-I
T1309	BA	2318*398	STW	Diss - FW	L-1-C	Cd, Cu, Pb, Ag and Zn	JMB	03/31/05	2000	EC-I
T1310	CC	2318*399	STW	Total - FW	L-1-C	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	JMB	03/31/05	2157	EC-I
T1310	CC	2318*400	STW	Diss - FW	L-1-C	Cd, Cu, Pb, Ag and Zn	JMB	03/31/05	2157	EC-I
T1311	SC	2318*401	STW	Total - FW	L-1-C	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	JMB	03/31/05	2032	EC-I
T1311	SC	2318*402	STW	Diss - FW	L-1-C	Cd, Cu, Pb, Ag and Zn	JMB	03/31/05	2032	EC-I
T1312	CH	2318*403	STW	Total - FW	L-1-C	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	JMB	03/31/05	1819	EC-I
T1312	CH	2318*404	STW	Diss - FW	L-1-C	Cd, Cu, Pb, Ag and Zn	JMB	03/31/05	1819	EC-I
T1315A	B-ST01	2318*405	SW	Total - FW	L-1-C	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	JMB	03/31/05	1750	G
T1315A	B-ST01	2318*406	SW	Diss - FW	L-1-C	Cd, Cu, Pb, Ag and Zn	JMB	03/31/05	1750	G
T1315B	B-ST01	2318*407	SW	Total - FW	L-1-C	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	JMB	03/31/05	30	G
T1315B	B-ST01	2318*408	SW	Diss - FW	L-1-C	Cd, Cu, Pb, Ag and Zn	JMB	03/31/05	30	G
T1315C	B-ST01	2318*409	SW	Total - FW	L-1-C	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	JMB	03/31/05	955	G
T1315C	B-ST01	2318*410	SW	Diss - FW	L-1-C	Cd, Cu, Pb, Ag and Zn	JMB	03/31/05	955	G
G1219	KAR-WWTP	2318*411	WWTP	Total - FW	L-1-C	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	JMB	04/01/05	730	EC-G
G1219	KAR-WWTP	2318*412	WWTP	Diss - FW	L-1-C	Cd, Cu, Pb, Ag and Zn	JMB	04/01/05	730	EC-G
T1315	B-ST01	2318*441	SW	Total - FW	L-1-C	HG	JMB	03/31/05	1750	EC-G
<u>ORGANICS</u>										
T1313	SW6	2318*445	SW	Total - FW	Outside Refrig	ORGANICS	JMB	03/31/05	2036	FC
T1314	B-ST12	2318*446	SW	Total - FW	Outside Refrig	ORGANICS	JMB	03/31/05	1907	FC
T1308	BI-SBC	2318*447	STW	Total - FW	Outside Refrig	ORGANICS	JMB	03/31/05	1849	FC
T1311	SC	2318*450	STW	Total - FW	Outside Refrig	ORGANICS	JMB	03/31/05	2032	EC-I
T1315	B-ST01	2318*452	SW	Total - FW	Outside Refrig	ORGANICS	JMB	03/31/05	1750	EC-G

cc: Project Manager/Central File
Login File

SAMPLE LOGIN

(SOP# MSL-A-001)

Project Manager: Brandenberger

Date Received: 3/31/2005

Batch: 9

PROJECT: Wet Season Baseflow FY05

SPONSOR CODE	Site Description	BATTELLE CODE	MATRIX	Portion	STORAGE LOCATION	PARAMETERS REQUESTED	INITIALS	Start Date	Start Time	Sample Type
T1316	BI-SBC	2318*453	STW	Total - FW	Prep Lab L-6-B	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	JMB	03/30/05	1120	D
T1317	BA	2318*455	STW	Total - FW	Prep Lab L-6-B	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	JMB	03/30/05	1110	D
T1318	CC	2318*457	STW	Total - FW	Prep Lab L-6-B	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	JMB	03/30/05	1120	D
T1319	SC	2318*459	STW	Total - FW	Prep Lab L-6-B	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	JMB	03/30/05	1110	D
T1320	CH	2318*461	STW	Total - FW	Prep Lab L-6-B	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	JMB	03/30/05	1110	D
T1321	SW6	2318*463	SW	Total - FW	Prep Lab L-6-B	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	JMB	03/30/05	1110	D
T1322	B-ST12	2318*465	SW	Total - FW	Prep Lab L-6-B	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	JMB	03/30/05	1110	D
T1323	B-ST01	2318*467	SW	Total - FW	Prep Lab L-6-B	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	JMB	03/30/05	1400	G
T1324	GC-SAN	2318*469	STW	Total - FW	Prep Lab L-6-B	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	JMB	03/30/05	1335	G
T1325	BL	2318*471	STW	Total - FW	Prep Lab L-6-B	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	JMB	03/30/05	1325	G
T1326	OC	2318*473	STW	Total - FW	Prep Lab L-6-B	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	JMB	03/30/05	1300	G
G1209	B-WWTP	2318*475	WWTP	Total - FW	Prep Lab L-6-B	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	JMB	03/30/05	838	EC-G
G1201	KAR-WWTP	2318*481	WWTP	Total - FW	Prep Lab L-6-B	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	JMB	03/30/05	830	EC-G
T1316	BI-SBC	2318*454	STW	Diss - FW	Prep Lab L-6-B	Cd, Cu, Pb, Ag and Zn	JMB	03/30/05	1120	D
T1317	BA	2318*456	STW	Diss - FW	Prep Lab L-6-B	Cd, Cu, Pb, Ag and Zn	JMB	03/30/05	1110	D
T1318	CC	2318*458	STW	Diss - FW	Prep Lab L-6-B	Cd, Cu, Pb, Ag and Zn	JMB	03/30/05	1120	D
T1319	SC	2318*460	STW	Diss - FW	Prep Lab L-6-B	Cd, Cu, Pb, Ag and Zn	JMB	03/30/05	1110	D
T1320	CH	2318*462	STW	Diss - FW	Prep Lab L-6-B	Cd, Cu, Pb, Ag and Zn	JMB	03/30/05	1110	D
T1321	SW6	2318*464	SW	Diss - FW	Prep Lab L-6-B	Cd, Cu, Pb, Ag and Zn	JMB	03/30/05	1110	D
T1322	B-ST12	2318*466	SW	Diss - FW	Prep Lab L-6-B	Cd, Cu, Pb, Ag and Zn	JMB	03/30/05	1110	D
T1323	B-ST01	2318*468	SW	Diss - FW	Prep Lab L-6-B	Cd, Cu, Pb, Ag and Zn	JMB	03/30/05	1400	G
T1324	GC-SAN	2318*470	STW	Diss - FW	Prep Lab L-6-B	Cd, Cu, Pb, Ag and Zn	JMB	03/30/05	1335	G
T1325	BL	2318*472	STW	Diss - FW	Prep Lab L-6-B	Cd, Cu, Pb, Ag and Zn	JMB	03/30/05	1325	G
T1326	OC	2318*474	STW	Diss - FW	Prep Lab L-6-B	Cd, Cu, Pb, Ag and Zn	JMB	03/30/05	1300	G
G1209	B-WWTP	2318*476	WWTP	Diss - FW	Prep Lab L-6-B	Cd, Cu, Pb, Ag and Zn	JMB	03/30/05	838	EC-G
G1201	KAR-WWTP	2318*482	WWTP	Diss - FW	Prep Lab L-6-B	Cd, Cu, Pb, Ag and Zn	JMB	03/30/05	830	EC-G

cc: Project Manager/Central File
Login File

SAMPLE LOGIN

(SOP# MSL-A-001)

Project Manager: Brandenberger

Date Received: 3/31/2005

Batch: 9

PROJECT: Wet Season Baseflow FY05

SPONSOR CODE	Site Description	BATTELLE CODE	MATRIX	Portion	STORAGE LOCATION	PARAMETERS REQUESTED	INITIALS	Start Date	Start Time	Sample Type
<u>ORGANICS:</u>										
T1316	BI-SBC	2318*504	STW	Total - FW	Outside Refrig	ORGANICS	JMB	03/30/05	1120	D
T1318	CC	2318*506	STW	Total - FW	Outside Refrig	ORGANICS	JMB	03/30/05	1120	D
T1320	CH	2318*508	STW	Total - FW	Outside Refrig	ORGANICS	JMB	03/30/05	1110	D
T1321	SW6	2318*509	SW	Total - FW	Outside Refrig	ORGANICS	JMB	03/30/05	1110	D
T1322	B-ST12	2318*510	SW	Total - FW	Outside Refrig	ORGANICS	JMB	03/30/05	1110	D
T1323	B-ST01	2318*511	SW	Total - FW	Outside Refrig	ORGANICS	JMB	03/30/05	1400	G

SAMPLE LOGIN

(SOP# MSL-A-001)

Project Manager: Brandenberger

Date Received: 4/1/2005

Batch: 10

PROJECT: Make up event for Dyes 1 BI-SBC

SPONSOR CODE	Site Description	BATTELLE CODE	MATRIX	Portion	STORAGE LOCATION	PARAMETERS REQUESTED	INITIALS	Start Date	Start Time	Sample Type
T1300	BI-SBC	2318*454B	STW	Total	I-1-B	Al, As, Cd, Cr, Cu, Pb, Ag, Zn and Hg	JMB	04/10/05	2047	FC
T1300	BI-SBC	2318*455B	STW	Dissolved	I-1-B	Cd, Cu, Pb, Ag and Zn	JMB	04/10/05	2047	FC
<u>ORGANICS</u>										
T1300	BI-SBC	2318*453B	STW	Total	Outside Refrig	ORGANICS	JMB	04/10/05	2047	FC

Composite Ratio Worksheet: 2005 Storm Water Organic Contaminants

- Gorst
- Sinclair Inlet
- Dyes Inlet

Storm #1 ENVVEST FY05
Gorst Event #1: 17 - 18 Jan 05
Compositing Scheme for Stormwater Sites

Lab ID Series	T1100-LMK136										
Station ID											
Bottle	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	<u>H</u>	<u>I</u>	<u>J</u>	<u>K</u>
Date	17-Jan	17-Jan	17-Jan	17-Jan	17-Jan	17-Jan	17-Jan	17-Jan	18-Jan	18-Jan	18-Jan
Time	0054	0354	0654	0954	1203	1503	1803	2103	0003	0303	0603
Compositing %	5%	10%	0%	15%	25%	15%	10%	5%	5%	5%	5%
Tide Level	going low	low	going high	high	going low	low	low	going high	high	going low	low
% Full	100	100	20	60	100	100	100	100	100	100	85

Lab ID Series	T1104-LMK122										
Station ID											
Bottle	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	<u>H</u>	<u>I</u>	<u>J</u>	<u>K</u>
Date	16-Jan	17-Jan	17-Jan	17-Jan	17-Jan	17-Jan	17-Jan	17-Jan	17-Jan	18-Jan	18-Jan
Time	2357	0257	0557	0857	1157	1457	1757	2057	2357	0257	0557
Compositing %	5%	5%	5%	15%	25%	10%	10%	10%	5%	5%	5%
Tide Level	going low	low	going high	high	going low	low	low	going high	high	going low	low
% Full	100	100	100	100	100	100	100	100	100	100	100

Lab ID Series	T1105-LMK038										
Station ID											
Bottle	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	<u>H</u>	<u>I</u>	<u>J</u>	
Date	17-Jan	17-Jan	17-Jan	17-Jan	17-Jan	17-Jan	17-Jan	17-Jan	18-Jan	18-Jan	
Time	0213	0513	0813	1113	1413	1713	2013	2313	0213	0513	
Compositing %	5%	10%	20%	20%	15%	10%	5%	5%	5%	5%	
Tide Level	na										
% Full	100	100	100	100	100	100	100	100	100	100	

Lab ID Series	T1106-PO-POBLVD										
Station ID											
Bottle	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	<u>H</u>	<u>I</u>	<u>J</u>	<u>K</u>
Date	17-Jan	17-Jan	17-Jan	17-Jan	17-Jan	17-Jan	17-Jan	17-Jan	18-Jan	18-Jan	18-Jan
Time	0047	0347	0647	0947	1247	1547	1847	2147	0047	0347	0647
Compositing %	5%	5%	5%	15%	20%	15%	10%	10%	5%	5%	5%
Tide Level	na										
% Full	100	100	100	100	100	100	100	100	100	100	90

Storm #2 ENVVEST FY05
Gorst Event #2: 22 Jan 05
Compositing Scheme for Stormwater Sites

Lab ID Series Station ID	T1107- LMK136				
<u>Bottle</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>
Date	22-Jan	22-Jan	22-Jan	22-Jan	22-Jan
Time	0642	0942	1242	1542	1842
Tide Level	low	going high	high	going low	low
% Full	100	100	100	100	75
Flow (cubic ft)	35019	26694	32319	32778	24210
%of flow	21.5%	16%	20%	20%	15%
COMPOSITE	25%	20%	10%	30%	15%
Total Storm Flow (cubic ft)					163,053
					93%
					100%

Lab ID Series Station ID	T1111- LMK122				
<u>Bottle</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>
Date	22-Jan	22-Jan	22-Jan	22-Jan	22-Jan
Time	0922	1222	1522	1822	2122
Tide Level	low	going high	high	going low	low
% Full	100	100	100	100	40
Flow (cubic ft)	27324	34272	36918	45387	12024
%of flow	16%	20%	22%	27%	7%
COMPOSITE	20%	20%	25%	30%	5%
Total Storm Flow (cubic ft)					170,658
					91%
					100%

Lab ID Series Station ID	T1112- LMK038				
<u>Bottle</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>
Date	22-Jan	22-Jan	22-Jan	22-Jan	22-Jan
Time	0821	1121	1421	1721	2021
Tide Level	na				
% Full	100	100	100	100	50
Flow (cubic ft)	963	1377	1107	1350	153
%of flow	18%	25%	20%	25%	3%
COMPOSITE	25%	25%	20%	25%	5%
Total Storm Flow (cubic ft)					5,445
					91%
					100%

Lab ID Series Station ID	T1113- PO-POBLVD				
<u>Bottle</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>
Date	22-Jan	22-Jan	22-Jan	22-Jan	22-Jan
Time	0628	0928	1228	1528	1828
Tide Level	na				
% Full	100	100	100	100	80
Flow (cubic ft)	*Flowlink shows total flow of -25k; bulk of positive flow in Bottle A				
%of flow	Use LMK136 compositing plan as a guide				
COMPOSITE	35%	20%	15%	15%	15%
Total Storm Flow (cubic ft)					0%
					100%

Storm #3 ENVVEST FY05
Sinclair Event #1: 28 Feb - 1 Mar 05
Compositing Scheme for Stormwater Sites

Lab ID Series		T1202									
Station ID		B-ST28									
Bottle	A	B	C	D	E	F	G				
Date	28-Feb	28-Feb	28-Feb	1-Mar	1-Mar	1-Mar	1-Mar				
Time	1521	1821	2121	0021	0321	0621	0921				
Tide Level	na	na	na	na	na	na	na				
% Full	50	100	100	100	0	45	100				Total Storm Flow (cubic ft)
Flow (cubic ft)	4824	2142	8037	9621	11655	2223	414				41,967
%of flow	11%	5%	19%	23%	28%	5%	1%				93%
COMPOSITE	20%	10%	30%	35%	0%	5%	0%				100%

Lab ID Series		T1203														
Station ID		B-ST/CSO16														
Bottle	A		B		C		D		E		F		G			
Date	28-Feb		28-Feb		28-Feb		28-Feb		1-Mar		1-Mar		1-Mar			
Time	1452		1752		2052		2352		0252		0552		0852			
Tide Level	na	na	na	na	na	na	na	na	na	na	na	na	na	na		
% Full	100		100		100		100		100		100		100		Total Storm Flow (cubic ft)	
Flow (cubic ft)	2124		1134		1611		2664		3033		423		0		11,574	
%of flow	18.4%		10%		14%		23%		26%		4%		0%		95%	
COMPOSITE	20%		10%		15%		25%		25%		5%		0%		100%	

Lab ID Series		T1204									
Station ID		PSNS015									
Bottle	A	B	C	D	E	F	G				
Date	28-Feb	28-Feb	28-Feb	1-Mar	1-Mar	1-Mar	1-Mar				
Time	1741	2041	2341	0241	0541	0841	1141				
Tide Level	low to high	high	low	low to high	high	high to low	low				
% Full	100	100	100	100	100	100	25				Total Storm Flow (cubic ft)
Flow (cubic ft)	1755	11619	17640	3987	2979	7965	414				43,767
%of flow	4%	27%	40%	9%	7%	18%	1%				106%
COMPOSITE	5%	35%	40%	15%	0%	5%	0%				100%

Lab ID Series Station ID		T1205 PSNS124		Note: Physio-Chem data indicate salt water mixing w/ storm water at all periods EXCEPT during bottles C and D; take all samples from these bottle:										
Bottle	A		B		C		D		E		F		G	
Date	28-Feb		28-Feb		28-Feb		1-Mar		1-Mar		1-Mar		1-Mar	
Time	1726		2026		2326		0226		0526		0826		1126	
Tide Level	low to high		high		low		low to high		high		high to low		low	
% Full	100		100		100		100		100		100		45	
Flow (cubic ft)	351		2484		16146		2745		-120		2403		3717	
%of flow	1%		6%		37%		6%		0%		5%		8%	
COMPOSITE	0%		0%		80%		20%		0%		0%		0%	
												Total Storm Flow (cubic ft)	24849	
													63%	
													100%	

Lab ID Series Station ID		T1206 PSNS126		Note: Physio-Chem data indicate partial salt-water mixing in bottle B ONLY. No samples from this bottle									
Bottle		A	B	C	D	E	F	G					
Date		28-Feb	28-Feb	28-Feb	1-Mar	1-Mar	1-Mar	1-Mar					
Time		1732	2032	2332	0232	0532	0832	1132					
Tide Level		low to high	high	low	low to high	high	high to low	low					
% Full		100	100	100	100	100	100	50		Total Storm Flow (cubic ft)			
Flow (cubic ft)		441	10602	17082	17352	-279	3294	63			53019		
%of flow		1%	24%	39%	40%	-1%	8%	0%			111%		
COMPOSITE		10%	0%	50%	40%	0%	0%				100%		

Storm #4 ENVVEST FY05
Sinclair Event #2: 19 - 20 Mar 05

Compositing Scheme for Stormwater Sites

Lab ID Series	T1209
Station ID	B-ST28

Bottle	A	B	C	D	E	F	G	H
Date	19-Mar	19-Mar	19-Mar	19-Mar	20-Mar	20-Mar	20-Mar	20-Mar
Time	1254	1554	1854	2154	0054	0354	0654	0954
Tide Level	na	na	na	na	na	na	na	na
% Full	100	100	95	100	100	100	100	80
Flow (cubic ft)	32850	45711	2952	4734	2889	9477	20205	2772
%of flow	25%	38%	2%	4%	2%	7%	15%	2%
COMPOSITE	30%	40%	0%	5%	0%	10%	15%	2%
Volume in Jar	3.4	3.4	3.2	3.4	3.4	3.4	3.4	2.7
Volume needed for 5L	1.5	2	0	0.25	0	0.5	0.75	0
Vol. for 10L	3	4	0	0.5	0	1	1.5	0

Total Storm Flow (cubic Check	130,356	121590	121590
ballpark check	130,356	121590	121590
	96%		
	100%		
	5		
	10		

Lab ID Series	T1210
Station ID	B-ST/CSO16

Bottle	A	B	C	D	E	F	G	H
Date	19-Mar	19-Mar	19-Mar	19-Mar	20-Mar	20-Mar	20-Mar	20-Mar
Time	1308	1608	1908	2208	0108	0408	0708	1008
Tide Level	na	na	na	na	na	na	na	na
% Full	100	100	100	100	100	100	100	50
Flow (cubic ft)	13473	10548	0	819	801	3888	1512	0
%of flow	40%	31%	0%	2%	2%	12%	4%	0%
COMPOSITE	45%	35%	0%	0%	0%	15%	5%	0%
Volume in Jar	3.4	3.4	3.4	3.4	3.4	3.4	3.4	1.7
Volume needed for 5L	2.25	1.75	0	0	0	0.75	0.25	0
Vol. for 10L	4.5	3.5	0	0	0	1.5	0.5	0

Total Storm Flow (cubic Check	33,687	31041	31041
ballpark check	33,687	31041	31041
	92%		
	100%		
	5		
	10		

Lab ID Series	T1211
Station ID	PSNS015

Bottle	A	B	C	D	E	F	G	H
Date	19-Mar	19-Mar	19-Mar	19-Mar	20-Mar	20-Mar	20-Mar	20-Mar
Time	1238	1538	1838	2138	0038	0338	0638	0938
Tide Level	high to low	low	low to high	high	high to low	low	low	low
% Full	100	100	100	100	100	100	100	85
Flow (cubic ft)	60804	80451	2484	3672	12789	29277	16128	0
Flow (cubic ft)	60804	80451	2484	3672	12789	29277	16128	0
%of flow	35%	46%	1%	0%	0%	8%	9%	0%
COMPOSITE	35%	50%	0%	0%	0%	5%	10%	0%
Volume in Jar	3.4	3.4	3.4	3.4	3.4	3.4	3.4	2.9
Volume needed for 5L	1.75	2.5	0	0	0	0.25	0.5	0
Vol. for 10L	3.5	5	0	0	0	0.5	1	0

Total Storm Flow (cubic Check	220,005	205605	205605
ballpark check	220,005	205605	205605
	174,506	174505.5	174506
	100%		
	100%		
	5		
	10		

Lab ID Series	T1212
Station ID	PSNS124

Bottle	A	B	C	D	E	F	G	H
Date	19-Mar	19-Mar	19-Mar	19-Mar	20-Mar	20-Mar	20-Mar	20-Mar
Time	1230	1530	1830	2130	0030	0330	0630	0930
Tide Level	high to low	low	low to high	high	high to low	low	low	low
% Full	100	100	100	100	100	100	100	70
Flow (cubic ft)	14661	22005	2925	0	0	1575	4644	1629
%of flow	26%	39%	5%	0%	0%	3%	8%	3%
COMPOSITE	35%	50%	0%	0%	0%	5%	10%	0%
Volume in Jar	3.4	3.4	3.4	3.4	3.4	3.4	3.4	2.4
Volume needed for 5L	1.75	2.5	0	0	0	0.25	0.5	0
Vol. for 10L	3.5	5	0	0	0	0.5	1	0

Total Storm Flow (cubic Check	56,493	47439	47439
ballpark check	56,493	47439	47439
	84%		
	100%		
	5		
	10		

Lab ID Series	T1213
Station ID	PSNS126

Bottle	A	B	C	D	E	F	G	H
Date	19-Mar	19-Mar	19-Mar	19-Mar	20-Mar	20-Mar	20-Mar	20-Mar
Time	1227	1527	1827	2127	0027	0327	0627	0927
Tide Level	high to low	low	low to high	high	high to low	low	low	low
% Full	100	100	100	100	100	100	100	60
Flow (cubic ft)	75114	68904	0	0	4248	4374	25335	1782
%of flow	40%	37%	0%	0%	2%	2%	14%	1%
COMPOSITE	45%	40%	0%	0%	0%	5%	10%	0%
Volume in Jar	3.4	3.4	3.4	3.4	3.4	3.4	3.4	2.0
Volume needed for 5L	2.25	2	0	0	0	0.25	0.5	0
Vol. for 10L	4.5	4	0	0	0	0.5	1	0

Total Storm Flow (cubic Check	186,876	179757	179757
ballpark check	186,876	179757	179757
	96%		
	100%		
	5		
	10		

Lab ID Series	T1221
Station ID	B-ST12

Bottle	A	B	C	D	E	F	G	H
Date	19-Mar	19-Mar	19-Mar	19-Mar	20-Mar	20-Mar	20-Mar	20-Mar
Time	1318	1618	1918	2218	0118	0418	0718	1018
Tide Level	na	na	na	na	na	na	na	na
% Full	80	100	100	100	100	100	100	90
Flow (cubic ft)	6255	4572	1152	3501	3933	5265	3861	2970
%of flow	19%	14%	3%	11%	12%	16%	12%	9%
COMPOSITE	30%	20%	0%	10%	10%	15%	10%	5%
Volume in Jar	2.7	3.4	3.4	3.4	3.4	3.4	3.4	3.1
Volume needed for 5L	1.5	1	0	0.5	0.5	0.75	0.5	0.25
Vol. for 10L	3	2	0	1	1	1.5	1	0.5

Total Storm Flow (cubic ft)	33,174	31509	31509
ballpark check	33,174	31509	31509
	95%		
	100%		
	5		
	10		

Storm #5 ENVVEST FY05
Dyes Inlet Event #1: 26 Mar 05
Compositing Scheme for Stormwater Sites

Lab ID Series		T1305				
Station ID		SW6				
Bottle	A	B	C	D	E	F
Date	26-Mar	26-Mar	26-Mar	26-Mar	26-Mar	26-Mar
Time	0140	0440	0740	1040	1340	1640
Tide Level	low to high	high	high to low	low	low to high	high
% Full	100	100	100	100	100	100
Flow (cubic ft)	60759	121671	217089	136017	82044	34299
%of flow	9%	19%	31%	21%	12%	5%
COMPOSITE	10%	20%	30%	25%	10%	5%

Total Storm Flow (cubic ft)	ballpark check
710,082	651879
95%	
100%	

Lab ID Series		T1306				
Station ID		B-ST12				
Bottle	A	B	C	D	E	F
Date	26-Mar	26-Mar	26-Mar	26-Mar	26-Mar	26-Mar
Time	0136	0436	0736	1036	1336	1636
Tide Level	na	na	na	na	na	na
% Full	100	100	100	100	90	90
Flow (cubic ft)	8262	11664	6534	3501	13356	6849
%of flow	15%	22%	12%	6%	25%	13%
COMPOSITE	20%	25%	30%	15%	10%	0%

Total Storm Flow (cubic ft)	ballpark check
54,072	50166
93%	
100%	

Rainfall	0.29	0.32	0.35	0.23	0.1	
& of total rainfall	0.224806202	0.248062016	0.271317829	0.178294574	0.07751938	
	22	25	27	18	8	
rainfall based compositing %	20	25	30	15	10	

1.29
100
100

Sampling Ends Total Sampling Period

Storm BI-SBC MKUP Event ENVVEST FY05
 BI-SBC Makeup Event; Dyes #3: 10 April 05
 Proposed Compositing Scheme for Stormwater Sites

Lab ID Series		T1300						
Station ID		BI-SBC		12-HR				
<u>Bottle</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>			
Date	10-Apr	11-Apr						
Time	20:47	2:47						
Tide Level	NA	NA						
% Full	100	100				Total Storm Flow (cubic ft)	ballpark check	
Flow (cubic ft)	45318	69139				115,532	114457	
%of flow	39%	60%	0%	0%	0%	99%		
COMPOSITE	40%	60%					100%	
3								

3

Storm #6 ENVVEST FY05
Dyes Inlet Event #2: 1 April 05
Compositing Scheme for Stormwater Sites

Lab ID Series	T1308				30 hrs			
Station ID	BI-SBC				E			
Bottle	A	B	C	D				
Date	31-Mar	1-Apr	1-Apr	1-Apr				
Time	1849	0049	0649	1249				
Tide Level	NA	NA	NA	NA				
% Full	100	100	100	20				
Flow (cubic ft)	52690	107429	95340	5298				
%of flow	20%	41%	36%	2%	0%			
COMPOSITE	20%	45%	35%	0%				
vol. Available (L)	3.7	3.7	3.7	0.7				
Vol for 5L	1.0	2.3	1.8	0.0				
vol for 10L	2.0	4.5	3.5	0.0				
	1.6	3.6	2.8	0.0	8			

Total Storm Flow (cubic ft) ballpark check
264,504 260757
99%
100%

Lab ID Series		T1313													
Station ID		SW6													
Bottle	A	B	C	D	E	F	G	H	I	J	30 hrs				
Date	31-Mar	31-Mar	1-Apr	1-Apr	1-Apr										
Time	2036	2336	0236	0536	0836										
Tide Level	sl - rising	high	sl-fall	slack	high										
% Full	100	100	100	100	65										
Flow (cubic ft)	60849	100224	102969	30411	11223										
%of flow	18%	30%	31%	9%	3%	0%	0%	0%	0%	0%					
COMPOSITE	20%	35%	40%	5%	0%										
vol. Available (L)	3.7	3.7	3.7	3.7											
Vol for 5L	1.0	1.8	2.0	0.3											
vol for 10L	2.0	3.5	4.0	0.5											
												Total Storm Flow (cubic ft)	ballpark check		
												330,390	305676		
												93%	100%		
												peak of storm		tidally influenced	

Total Storm Flow (cubic ft) ballpark check
330,390 305676
93%
100%

peak of storm tidally influenced

Lab ID Series		T1314									
Station ID		B-ST12									
Bottle	A	B	C	D	E	F	G	H	I	J	
Date	31-Mar	31-Mar	1-Apr	1-Apr	1-Apr						
Time	19:07	22:07	1:07	4:07	7:07						
Tide Level	NA	NA	NA	NA	NA						
% Full	100	100	100	95	80						
Flow (cubic ft)	9567	9855	11106	9819	4914						
%of flow	19%	20%	22%	20%	10%	0%	0%	0%	0%	0%	
COMPOSITE	25%	20%	30%	20%	5%						
vol. Available (L)	3.7	3.7	3.7	3.5	3.0						
Vol for 5L	1.3	1.0	1.5	1.0	0.3						
vol for 10L	2.5	2.0	3.0	2.0	0.5						
										30 hrs	

Total Storm Flow (cubic ft) ballpark check
49,581 45261
91%
100%

front loaded to get first flush

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