King County Environmental Lab Analytical Report

Project:	421874-915					Project:	421874-915				
Locator:	WHITE LAKE DOCK 2A					Locator:	WHITE LAKE SCUM				
Descrip:	White Lake Dock 2A					Descrip:	White Lake				
Sample:	L83832-1					Sample:	L83832-2				
Matrix:	LK FRESH WTR					Matrix:	LK FRESH WTR				
ColDate:	6/24/24 11:40					ColDate:	6/24/24 11:45				
WET Weight Basis						**WET Weight Basis**					
Parameters	**Value**	**Qual**	**MDL**	**RDL**	**Units**	**Value**	**Qual**	**MDL**	**RDL**	**Units**
AQ ABRAXIS ADDA										
Microcystin	2.09		0.3	0.6	ug/L	5.98		0.3	0.6	ug/L
AQ modified KCEL SOP4070										
Anatoxin-a		<MDL	0.01	0.05	ug/L		<MDL	0.01	0.05	ug/L

King County Environmental Laboratory Batch Report

White Lake FWSB, L83832, June 24, 2024

WG194825 Anatoxin-a by LCMS

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	QC Association	Comments
L83832-1	421874-915	Muckleshoot Tribe Swimming Beaches	AQATX-DIRECT	FRESH WTR	6/24/2024 11:40	6/24/2024 14:50	6/26/2024 14:45	WG194825-1,-2,-3,-4	
L83832-2	421874-915	Muckleshoot Tribe Swimming Beaches	AQATX-DIRECT	FRESH WTR	6/24/2024 11:45	6/24/2024 14:50	6/26/2024 14:45	WG194825-1,-2,-3,-4	
L84124-2	421395	Swimming Beaches	AQATX-DIRECT	FRESH WTR	6/24/2024 8:42	6/24/2024 14:50	6/26/2024 14:45	WG194825-1,-2,-3,-4	
L84124-4	421395	Swimming Beaches	AQATX-DIRECT	FRESH WTR	6/24/2024 8:54	6/24/2024 14:50	6/26/2024 14:45	WG194825-1,-2,-3,-4	
L84124-6	421395	Swimming Beaches	AQATX-DIRECT	FRESH WTR	6/24/2024 9:12	6/24/2024 14:50	6/26/2024 14:45	WG194825-1,-2,-3,-4	
L84124-9	421395	Swimming Beaches	AQATX-DIRECT	FRESH WTR	6/24/2024 9:54	6/24/2024 14:50	6/26/2024 14:45	WG194825-1,-2,-3,-4	
L84124-11	421395	Swimming Beaches	AQATX-DIRECT	FRESH WTR	6/24/2024 9:42	6/24/2024 14:50	6/26/2024 14:45	WG194825-1,-2,-3,-4	
L84124-14	421395	Swimming Beaches	AQATX-DIRECT	FRESH WTR	6/24/2024 10:18	6/24/2024 14:50	6/26/2024 14:45	WG194825-1,-2,-3,-4	
L84124-17	421395	Swimming Beaches	AQATX-DIRECT	FRESH WTR	6/24/2024 11:36	6/24/2024 14:50	6/26/2024 14:45	WG194825-1,-2,-3,-4	
L84124-21	421395	Swimming Beaches	AQATX-DIRECT	FRESH WTR	6/24/2024 11:55	6/24/2024 14:50	6/26/2024 14:45	WG194825-1,-2,-3,-4	
L84124-24	421395	Swimming Beaches	AQATX-DIRECT	FRESH WTR	6/24/2024 12:14	6/24/2024 14:50	6/26/2024 14:45	WG194825-1,-2,-3,-4	
L84124-27	421395	Swimming Beaches	AQATX-DIRECT	FRESH WTR	6/24/2024 12:41	6/24/2024 14:50	6/26/2024 14:45	WG194825-1,-2,-3,-4	
L84124-30	421395	Swimming Beaches	AQATX-DIRECT	FRESH WTR	6/24/2024 13:04	6/24/2024 14:50	6/26/2024 14:45	WG194825-1,-2,-3,-4	
L84125-2	421395	Swimming Beaches	AQATX-DIRECT	FRESH WTR	6/24/2024 9:01	6/24/2024 14:50	6/26/2024 14:45	WG194825-1,-2,-3,-4	
L84125-5	421395	Swimming Beaches	AQATX-DIRECT	FRESH WTR	6/24/2024 9:20	6/24/2024 14:50	6/26/2024 14:45	WG194825-1,-2,-3,-4	
L84125-8	421395	Swimming Beaches	AQATX-DIRECT	FRESH WTR	6/24/2024 9:34	6/24/2024 14:50	6/26/2024 14:45	WG194825-1,-2,-3,-4	
L84125-11	421395	Swimming Beaches	AQATX-DIRECT	FRESH WTR	6/24/2024 9:51	6/24/2024 14:50	6/26/2024 14:45	WG194825-1,-2,-3,-4	
L84125-14	421395	Swimming Beaches	AQATX-DIRECT	FRESH WTR	6/24/2024 10:07	6/24/2024 14:50	6/26/2024 14:45	WG194825-1,-2,-3,-4	
L84125-17	421395	Swimming Beaches	AQATX-DIRECT	FRESH WTR	6/24/2024 10:39	6/24/2024 14:50	6/26/2024 14:45	WG194825-1,-2,-3,-4	
L84125-21	421395	Swimming Beaches	AQATX-DIRECT	FRESH WTR	6/24/2024 12:13	6/24/2024 14:50	6/26/2024 14:45	WG194825-1,-2,-3,-4	
L84127-2	421395	Swimming Beaches	AQATX-DIRECT	FRESH WTR	6/25/2024 11:45	6/25/2024 16:15	6/26/2024 14:45	WG194825-1,-2,-3,-4	
L84127-5	421395	Swimming Beaches	AQATX-DIRECT	FRESH WTR	6/25/2024 9:28	6/25/2024 16:15	6/26/2024 14:45	WG194825-1,-2,-3,-4	
L84127-8	421395	Swimming Beaches	AQATX-DIRECT	FRESH WTR	6/25/2024 11:11	6/25/2024 16:15	6/26/2024 14:45	WG194825-1,-2,-3,-4	
L84127-12	421395	Swimming Beaches	AQATX-DIRECT	FRESH WTR	6/25/2024 8:33	6/25/2024 16:15	6/26/2024 14:45	WG194825-1,-2,-3,-4	
L84127-15	421395	Swimming Beaches	AQATX-DIRECT	FRESH WTR	6/25/2024 8:53	6/25/2024 16:15	6/26/2024 14:45	WG194825-1,-2,-3,-4	
L84129-2	421874-940	Mercer Island Swim Beach	AQATX-DIRECT	FRESH WTR	6/25/2024 7:53	6/25/2024 16:15	6/26/2024 14:45	WG194825-1,-2,-3,-4	
WG194825-1	MB		AQATX-DIRECT	OTHR WTR		6/24/2024 14:50	6/26/2024 14:45	WG194825-1,-2,-3,-4	
WG194825-2	SB		AQATX-DIRECT	OTHR WTR		6/24/2024 14:50	6/26/2024 14:45	WG194825-1,-2,-3,-4	WG194825-1
WG194825-3	MS		AQATX-DIRECT	FRESH WTR		6/24/2024 14:50	6/26/2024 14:45	WG194825-1,-2,-3,-4	L84124-11
WG194825-4	MSD		AQATX-DIRECT	FRESH WTR		6/24/2024 14:50	6/26/2024 14:45	WG194825-1,-2,-3,-4	WG194825-3 L84124-11

King County Environmental Laboratory Batch Report

White Lake FWSB, L83832, June 24, 2024

WG194848 Microcystin by ELISA

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	QC Association	Comments
L83832-1	421874-915	Muckleshoot Tribe Swimming Beaches	AQADDA-ELISA	FRESH WTR	6/24/2024 11:40	6/25/2024 16:15	6/27/2024 13:43	WG194848-1,-2,-3	
L83832-2	421874-915	Muckleshoot Tribe Swimming Beaches	AQADDA-ELISA	FRESH WTR	6/24/2024 11:45	6/25/2024 16:15	6/27/2024 13:43	WG194848-1,-2,-3	
L84172-1	421520-300	Ecology Algae Control	AQADDA-ELISA	FRESH WTR	6/24/2024 10:00	6/25/2024 11:15	6/27/2024 13:43	WG194848-1,-2,-3	
L84172-2	421520-300	Ecology Algae Control	AQADDA-ELISA	FRESH WTR	6/24/2024 13:00	6/25/2024 14:10	6/27/2024 13:43	WG194848-1,-2,-3	
L84172-3	421520-300	Ecology Algae Control	AQADDA-ELISA	FRESH WTR	6/24/2024 10:10	6/25/2024 14:10	6/27/2024 13:43	WG194848-1,-2,-3	
L84191-1	421520-300	Ecology Algae Control	AQADDA-ELISA	FRESH WTR	6/25/2024 13:10	6/26/2024 13:30	6/27/2024 13:43	WG194848-1,-2,-3	
WG194848-1	PCE		AQADDA-ELISA	OTHR WTR		6/27/2024 10:40	6/27/2024 13:43	WG194848-1,-2,-3	
WG194848-2	MB		AQADDA-ELISA	OTHR WTR		6/27/2024 10:30	6/27/2024 13:43	WG194848-1,-2,-3	
WG194848-3	SB		AQADDA-ELISA	OTHR WTR		6/27/2024 10:30	6/27/2024 13:43	WG194848-1,-2,-3	WG194848-2

Workgroup: WG194825 Anatoxin-a by LCMS

MB:WG194825-1 Matrix: OTHR WTR Listtype:AQATX-DIRECT Method:modified KCEL SOP4070 Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Anatoxin-a	0.01	0.05	ug/L		<MDL

SB:WG194825-2 MB:WG194825-1 Matrix: OTHR WTR Listtype:AQATX-DIRECT Method:modified KCEL SOP4070 Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	True Value	SB Value	% Rec.	Qual	Lab Limit
Anatoxin-a	0.01	0.05	ug/L	<MDL	0.5	0.531	106		50--150

MSD:WG194825-4 MS:WG194825-3 L84124-11 Matrix: FRESH WTR Listtype:AQATX-DIRECT Method:modified KCEL SOP4070 Project:421395 Pkey:STD
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	True Value	MS Value	% Rec.	Qual	Lab Limit	True Value	MSD Value	% Rec.	Qual	RPD	Qual	Lab Limit
Anatoxin-a	0.01	0.05	ug/L	<MDL	0.5	0.405	81		50--150	0.5	0.411	82		2		0--45

King County Environmental Laboratory QC Report

White Lake FWSB, L83832, June 24, 2024

Workgroup: WG194848 Microcystin by ELISA

PCE:WG194848-1 Matrix: OTHR WTR Listtype:AQADDA-ELISA Method:ABRAXIS ADDA Project: Pkey:STD
(Positive Control Elisa)

Parameter	MDL	RDL	Units	True Value	PCE Value	% Rec.	Qual	Lab Limit
Microcystin	0.3	0.6	ug/L	0.75	0.707	94		70--130

MB:WG194848-2 Matrix: OTHR WTR Listtype:AQADDA-ELISA Method:ABRAXIS ADDA Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Microcystin	0.3	0.6	ug/L		<MDL

SB:WG194848-3 MB:WG194848-2 Matrix: OTHR WTR Listtype:AQADDA-ELISA Method:ABRAXIS ADDA Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	True Value	SB Value	% Rec.	Qual	Lab Limit
Microcystin	0.3	0.6	ug/L	<MDL	0.9	0.578	64		60--140

Login: P83832
Project: 421874-915

White Lake Swim Beach 6/24

FSU TC: _____
LPM: Meghan Elkey

CHAIN OF CUSTODY

Relinquished by Micah Ungstad	Date 6/24/24	Time 1300
Received by	Date 6-24-24	Time 1300
Sample Numbers		[All]

Sample Number	**P83832-1**	**P83832-2**
QC Link		
Locator	**WHITE LAKE DOCK 2A**	**WHITE LAKE SCUM**
Short Loc Desc		
Locator Desc	White Lake Dock 2A	White Lake
Site	KING COUNTY	KING COUNTY
Comments	White Lake	White Lake
Start Date/Time	11:40	11:45
End Date/Time		
Time Span		
Sample Depth	surface	surface
Dept, Matrix, Prod (Cont ID)	4 LK ADDA-ELISA; ATXA-ELISA (43)	4 LK ADDA-ELISA; ATXA-ELISA (43)

LIQUID SAMPLE RECEIPT RECORD

Login Number(s): 83832-1,2	Project No.: 42814-95	Sub-Contracting: Y / N	List Product(s):
Collect Date(s): 6-24-24	Receive Date: 6-24-24	Changes: Y / N	List Parameter(s):

SAMPLE RECEIPT CONDITIONS

CONDITION	Acceptable?	Comment ID	CONDITION	Acceptable?	Comment ID
Labels / Fieldsheets	Y / N		Volumes	Y / N	
Container	Y / N		Holding Times	Y / N	
Temperature (w/ ice)	Y / N / NA		Delivery Location	Y / N	

BOTTLE COUNT (#) AND DESCRIPTION and SAMPLE NUMBERS

#	Bottle Description: Sample Numbers
	40 mL clear vial (VOA):
	60 mL clear glass (PHYTO):
	60 mL CWM HDPE:
	125 mL AWM HDPE:
	125 mL CNM HDPE:
	125 mL CWM HDPE:
	125 mL GANM:
	125 mL GANM w/HCl
	250 mL AWM HDPE:
	250 mL CWM HDPE:
	250 mL CWM HDPE (MICRO):
2	250 mL GAWM: 1,2
	250 mL GAWM w/ H2SO4:
	300 mL WDO (8 hour HT):
	500 mL AWM HDPE:
	500 mL CWM HDPE:
	500 mL CWM PP (MICRO):
	500 mL HDPE (METALS):
	500 mL HDPE, double-bagged (METALS):
	500 mL Teflon (Hg):
	500 mL Teflon, double-bagged (METALS):
	500 mL GANM / GAWM:
	500 mL Polystyrene Filtration Units (METALS):
	1L AWM HDPE:
	1L CWM HDPE:
	1L CWM PP (MICRO):
	1L GANM:
	1L GCWM:
	1L GAWM w/ H_2SO_4:
	2L CWM HDPE:
	Other:

COMMENTS / NOTIFICATIONS

FIELD PRESERVATION CHECKLIST (Circle and/or check applicable selections)

PRODUCT / Preservation	SM Action	Acceptable?	Corrective Action
BNA / pH 6 - 9 w/ H_2SO_4 or NaOH	√ field sheet for F. pH	Y / N	☐ Notify ORG
CN / pH > 12 w/ NaOH within 15 min	☐ Check pH	Y / N	☐ Deliver to CONV
NO23 pH < 2 w/ H_2SO_4	☐ Check pH	Y / N / NA	☐ Preserve by SM
CR(VI) / TOTCR(VI) / pH 9.3 - 9.7 w/ NaOH w/in 15 min	√ field sheet for pH	Y / N	☐ Deliver to CONV
ICP / HG-CVAA-M / pH < 2 w/ HNO_3	☐ Check pH	Y / N	☐ Preserve By SM
O&G / HEM / PHENOL / pH < 2 w/ H_2SO_4	Check documentation	Y / N	☐ Preserve by SM
PHYTOPLANKTON / Lugols	Visually inspect	Y / N	☐ Deliver to MICRO
TKN / COD pH < 2 w/ H_2SO_4 within 15 min	☐ Check pH	Y / N	☐ Preserve By SM
TOC / pH < 2 w/ HCl (NPDES only)	☐ Check pH	Y / N	☐ Preserve By SM
TOTSULFIDE / pH > 9 w/ NaOH, ZnAc	Check documentation	Y / N	☐ Deliver to CONV
WDO / FIXED	Visually inspect	Y / N	☐ Deliver to CONV
Other:			

ROUTINE SM PRESERVATION CHECKLIST (Circle and/or check applicable selections)

PRODUCT / Preservation	SM Action	Acceptable?	Corrective Action
Chlorinated Pesticides / pH 5 - 9 w/ H_2SO_4 or NaOH	√ field sheet for F. pH	Y / N	☐ Adjust pH
HG-CVAA-L-Teflon (T / D) / pH < 2 w/ ULTRA HCl	☐ Preserve & deliver	NA	NA
ICPMS / HG-CVAA-M (T / D) / pH < 2 w/ ULTRA HNO_3	☐ Preserve & deliver	NA	NA
TOC / pH < 2 w/ HCl	☐ Preserve & deliver	NA	NA
Other:			
Other:			

INTERFERENCE TEST (Circle and/or check applicable selections)

Product / Interference (SM Action)	Positive Test?	Treated	Corrective Action
BNA / Chlorine (Check documentation)	Y / N / not tested	Y / N	☐ Deliver to ORG
CN / Chlorine (Check documentation)	Y / N / not tested	Y / N	☐ Deliver to CONV
CN / Sulfide (Check field sheet for DF)	Y / N / not tested	Y / N	☐ Deliver to CONV
VOA / Chlorine (Check documentaion)	Y / N / not tested	Y / N	☐ Deliver to ORG
Other:			

HEADSPACE CHECK

PRODUCT (SM Action)	Check For	Acceptable?	Corrective Action
MICRO (Visually inspect)	Headspace (@ 1")	Y / N	☐ Notify MICRO
TOTSULFIDE (Visually inspect)	Headspace (< 1")	Y / N	☐ Notify CONV
VOA (Visually inspect)	Zero headspace	Y / N	☐ Notify ORG
WDO (Visually inspect)	Zero headspace	Y / N	☐ Notify CONV
Other:			

FIELD FILTRATION CHECKLIST (Circle and/or check applicable selections)

Product (SM Action)	Field Filtered	Field Blank	Corrective Action
ORTHOP (Check Field Sheet)	Y (within 15 min y / n) / N	Y / N	☐ Deliver to CONV
NO2 / NO3 / NO23 / NH3 / Si (Documentation)	Y (within 1 day y / n) / N	Y / N / NA	☐ Deliver to CONV
Dissolved Metals (Check Field Sheet)	Y (within 15 min y / n) / N	Y / N / NA	☐ Deliver to METALS
DOC (Deliver / Notify Unit)	Y (within 15 min or 1 day) / N	Y / N / NA	☐ Deliver to CONV
DCOD / CR(VI) (Deliver / Notify Unit)	Y (within 15 min y / n) / N	Y / N / NA	☐ Deliver to CONV
Other:			
Other:			

CC: ☐ AQUATOX, ☐ CONV, ☐ METALS, ☐ MICRO, ☐ ORG, ☐ _____

NOTES

1. Deliver dissolved Hg-CVAF samples to METALS for filtration.
2. Deliver double-bagged metals samples to METALS for preservation.
3. Do not test pH for preserved BNA and TOTSULFIDE samples.
4. Deliver pH, WDO, and all MICRO samples ASAP to appropriate section for immediate processing.
5. Enter " Time Span" for composite samples during sample login.
6. Split algae sample into 60 mL clear glass if PHYTOQUAL is requested.

SM Signature: _____ Date / Time Completed: JUN 24 '24 13:02