



IEH ANALYTICAL LABORATORIES

LABORATORY & CONSULTING SERVICES

3927 AURORA AVENUE NORTH, SEATTLE, WA 98103

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CASE FILE NUMBER:	1714290	PAGE 1
REPORT DATE:	07/09/20	
DATE SAMPLED:	06/16/20	DATE RECEIVED: 06/17/20
FINAL REPORT, LABORATORY ANALYSIS OF SELECTED PARAMETERS ON WATER		
SAMPLES FROM MLIRD		

CASE NARRATIVE

Twenty five water samples were received by the laboratory in good condition and analyzed according to the chain of custody. No difficulties were encountered in the preparation or analysis of these samples. Sample data follows while QA/QC data is contained on the subsequent page.

SAMPLE DATA

SAMPLE ID	TOTAL-P (mg/L)	SRP (mg/L)	N03+N02 (mg/L)	ALKALINITY (mgCaCO3/L)	SODIUM (mg/L)	CHLOR_a (ug/L)	PHAEO_a (ug/L)
TS-1	0.008	0.001	<0.010				
TS-2	0.044	0.009	1.58				
TS-5a	0.089		0.097			30	1.7
TS-5b	0.085						
TS-5d	0.096						
TS-6a	0.059		0.032			8.6	<0.1
TS-6b	0.056						
TS-6c	0.052						
TS-6d	0.037						
TS-7a	0.028		0.021			12	0.2
TS-7b	0.032						
TS-7d	0.038		0.019				
TS-11a	0.105		0.074			25	<0.1
TS-11b	0.106						
TS-11c	0.063						
TS-11d	0.064						
TS-15a	0.084		0.046			9.6	0.3
TS-15b	0.082						
TS-15c	0.112						
TS-15d	0.137						
TS-12	0.107		0.457			8.3	4.2
TS-13	0.038	0.014	1.94	237	20.1		
TS-14	0.178	0.110	1.55	149	17.1		
TS-9	0.043	0.001	0.047	127	9.87		
TS-8	0.093		12.2			9.1	2.5

CONDUCTIVITY	
SAMPLE ID	(umhos/cm)
TS-13	577
TS-14	374
TS-9	864



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QA/QC DATA

QC PARAMETER	TOTAL-P (mg/L)	SRP (mg/L)	N03+N02 (mg/L)	ALKALINITY (mgCaCO3/L)	SODIUM (mg/L)	CHLOR_a (ug/L)	PHAEO_a (ug/L)
METHOD	SM18 4500PF	SM18 4500PF	SM184500N03F	SM18 2320B	EPA 200.7	SM1810200H	SM1810200H
DATE ANALYZED	06/22/20	06/17/20	06/18/20	06/19/20	06/23/20	06/19/20	06/19/20
REPORTING LIMIT	0.002	0.001	0.010	1.00	0.500	0.1	0.1
DUPLICATE							
SAMPLE ID	TS-8	BATCH	BATCH	BATCH	BATCH	BATCH	BATCH
ORIGINAL	0.093	0.002	0.021	17.8	30.9	1.9	<0.1
DUPLICATE	0.095	0.002	0.022	17.9	31.0	2.1	0.1
RPD	2.08%	5.99%	0.46%	0.56%	0.29%	13.33%	NC
SPIKE SAMPLE							
SAMPLE ID	TS-8	BATCH	BATCH		BATCH		
ORIGINAL	0.093	0.002	0.021		30.9		
SPIKED SAMPLE	0.142	0.022	0.217		41.1		
SPIKE ADDED	0.050	0.020	0.200		10.0		
% RECOVERY	98.28%	98.46%	97.57%	NA	101.30%	NA	NA
QC CHECK							
FOUND	0.096	0.040	0.389	99.0	9.62		
TRUE	0.094	0.039	0.408	100	10.0		
% RECOVERY	102.13%	102.56%	95.37%	99.00%	96.20%	NA	NA
BLANK							
	<0.002	<0.010	<0.010	NA	<0.500	NA	NA

RPD = RELATIVE PERCENT DIFFERENCE.
 NA = NOT APPLICABLE OR NOT AVAILABLE.
 NC = NOT CALCULABLE DUE TO ONE OR MORE VALUES BEING BELOW THE DETECTION LIMIT.
 OR = RECOVERY NOT CALCULABLE DUE TO SPIKE SAMPLE OUT OF RANGE OR SPIKE TOO LOW RELATIVE TO SAMPLE CONCENTRATION.

SUBMITTED BY:

Damien Gadomski
 Project Manager