Kinetic
OHS Services

Hazardous Materials • Occupational Hygiene • IAQ
Confined Space • Safety • Asbestos Air & Bulk Analysis

September 30, 2021

Kinetic Reference No.: 8177-JB-R1

Capilano University
2055 Purcell Way
North Vancouver, BC V7J 3H5

Email: nataliaskapski@capilanou.ca

Attention: **Natalia Skapski, Manager, Health & Safe**

Reference: **Lead Water Sampling – Arbutus Building, CSW, Cedar Building, Fitness Centre**

1.0 Introduction

Kinetic OHS Services Ltd. (Kinetic OHS) has in accordance with your request, collected water samples from the above noted buildings at the Capilano University Campus located at 2055 Purcell Way, North Vancouver, BC. It is our understanding that elevated concentrations of lead in the drinking water have been a concern based on previous testing. The water samples were collected on Sunday, September 12, 2021 when classes were not in session.

2.0 Background on Lead in Drinking Water

Lead is a naturally occurring element found in small amounts in the earth's crust. Lead is a dense, odourless, bluish-grey heavy metal which is insoluble in water. Unlike other drinking water contaminants, lead is usually not in the water before it reaches the building. Lead can enter drinking water when plumbing materials that contain lead corrode including lead pipes, faucets and fixtures. Historically, lead was used extensively in service lines, solders and fittings. Water with high acidity or low mineral content especially corrodes pipes and fixtures thereby causing lead to leach from the systems.

Young children, infants, and fetuses are particularly vulnerable to lead because of the physical, behavioral and cognitive effects of lead. These effects can occur at a lower exposure level in children than in adults. Long term exposure to lead can cause it to accumulate in the bodies over time where it gets stored in the bones as a source of continual internal exposure. With age, when the bones demineralize, the bone tissue releases lead causing internal exposure. Lead can also cross the placental barrier thus pregnant women who are exposed to lead can also exposure their fetus. Even at extremely low levels, exposure to lead can be toxic and very difficult to eliminate from the body.

Prolonged exposure to lead can cause abdominal pain, constipation, depression, forgetfulness, irritability, and nausea/sickness. People with prolonged exposure to lead are also at a risk for high blood pressure, heart disease, kidney disease, and reduced fertility. In children, lead exposure has been determined to cause adverse cognitive and behavioural effects especially reduction of intelligence quotient (IQ) scores.

Lead cannot be detected in water by sight, smell or taste. Discoloration episodes such as red water are likely to be accompanied by the release of accumulated contaminants including lead as dissolved lead adsorbs onto iron deposits in the lead service line. However, discoloration does not always accompany lead contamination. Hence, testing is the only way to detect lead in water.

2.0 Scope of Work

Kinetic OHS collected water samples for the cold water tap from faucets and drinking fountains in various buildings across the campus. The locations to be tested were determined by Capilano University. The results were compared against the current Canadian Drinking Water Guidelines.

3.0 Observations

The faucets and drinking fountains were noted to be in relatively good condition. Signage was posted at each faucet of concern not to use the water until the water has been tested. No unusual odours or discoloration of the water that would indicate contamination from other agents was noted during the sampling.

4.0 Sampling Methodology

Sampling was performed by collecting the water in a 125 mL wide mouth sample bottle. Refer to Appendix A for maps of sample locations.

To capture a worst case scenario, the samples were collected on a Sunday morning with no prior flushing which allowed for a stagnation period. A second water sample was collected from each source after running the water for 5 minutes.

The water samples were submitted to Bureau Veritas Laboratories in Burnaby for analysis using the validated analytical method indicated in the analytical results (Appendix B). A total of 24 water samples were collected and analyzed for Lead.

The Maximum Acceptable Concentration (MAC) for total lead in drinking water based on the Canadian Drinking Water Quality Guidelines is 0.005 mg/L (5 µg/L). The World Health Organization recommends that every effort should be made to reduce levels in drinking water to As Low As Reasonably Achievable (ALARA).

4.0 Results

The results of the sampling are summarized in Table 1. Three of the initial samples collected after stagnation were above the MAC of lead. These samples were collected from the Birch Building Room 257 (office faucet), the Cedar Building Room 131 (storage room faucet) and CWS Room 107, Storage Room, Cooler Fill. All samples found that after running the water for 5 minutes the levels were below the MAC.

Averages of the two sample results were also calculated for each faucet and are shown in Table 1. For those results where the result was less than the detection limit, the detection limit was used to calculate

the average, which would likely result in a much higher concentration than the true average. Refer to Appendix B for laboratory analytical results.

Table 1: Lead Results

Sample Number	Building	Sample Location	Lead Concentration (mg/L)	Average Lead Concentration (mg/L)
8177-01	Arbutus Building	Room 206 – Kitchen Faucet	0.0046	0.0025
8177-02			0.00039	
8177-03	Birch Building	Room 257 – Office Faucet	**0.030**	**0.016**
8177-04			0.0015	
8177-05	Cedar Building	Room 339 – Staff Room Faucet	0.0011	0.0007
8177-06			<0.0002	
8177-07	Cedar Building	Room 131 – Storage Room Faucet	**0.015**	**0.0076**
8177-08			0.00022	
8177-09	Fir Building	Room 119 – Music Therapy Room Faucet	0.0009	0.00055
8177-10			<0.0002	
8177-11	Fir Building	Room 302D – Physics Lab Faucet	0.00033	0.00027
8177-12			<0.0002	
8177-13	Fir Building	Room 309A – Biology Lab Faucet	0.00093	0.00057
8177-14			<0.0002	
8177-15	Library	Room 323 – Kitchen Faucet	0.001	0.00065
8177-16			0.0003	
8177-17	CSW	Room 107 – Storage Room Cooler Fill	**0.0073**	0.0038
8177-18			0.00035	
8177-19	CSW	Weight Room – Concession – 111A Double Sink	0.00086	0.00053
8177-20			<0.0002	
8177-21	Fitness Centre	Men's Change Room – 102 Fountain	0.0015	0.00085
8177-22			<0.0002	
8177-23	Fitness Centre	Men's Change Room – 102 Bottle Fill Station	0.00023	0.00022
8177-24			<0.0002	

Notes

- "<" = Less than detection limit
- **Grey Shading**= Maximum Acceptable Concentration (MAC) of 0.005 µg/L exceeded
- The first sample listed for each location was collected after stagnation, the second sample was collected after running the water for 5 minutes.

5.0 Conclusions & Recommendations

A total of 24 water samples were collected from various water sources on campus and compared to the Canadian Drinking Water Quality guidelines published by Health Canada. Three of the samples had elevated levels of lead in the initial sample collected after a stagnation period, but all had acceptable levels after the water was allowed to run for five minutes.

The results of the two samples collected at each water source were averaged and the averages identified showed two locations with averages above the MAC for lead. These locations were.

- Birch Building – Room 257 – Office Faucet
- Cedar Building – Room 131 – Storage Room Faucet

Calculating the average of two drinking may be valuable if the water source were to be used for a prolonged period, such as to fill a cooler; however, we do not know when the level of lead in the drinking water decreased to acceptable levels, and levels may be acceptable even after 30 seconds of running the stagnated water, therefore, the averages may not be representative of actual drinking water conditions.

Those taps with elevated lead levels after stagnation must be further investigated and/or signage posted to either the run the water prior to drinking or "Do not drink from tap". Hand washing does not pose a risk of exposure because lead in water is not readily absorbed through human skin via dermal exposure.

As the stagnation samples were collected to represent a worse-case scenario, random daytime sampling could be considered the point sources with elevated lead levels to determine if the lead is elevated during the day during normal use.

It must be noted that municipal treatment of water to remove lead may not be the most effective strategy because lead is most likely released by corrosion in the local plumbing and distribution systems. Moreover, treatment technologies can change water quality parameters that impact lead release thereby increasing lead in drinking water. Hence, long term strategies to mitigate lead exposures must be focused on replacing local plumbing and distribution systems.

Health Canada Guideline of Drinking Water Quality recommends that the total lead in schools and daycares be monitored at least once a year at each of the drinking water fountains or cold water taps where water may be used for drinking or food preparation.

6.0 Limitations

This report has been prepared in accordance with established Industrial Hygiene practices. It is intended for the exclusive use of the client to assist with complying with the current accepted industry guidelines for the assessment of drinking water based on the Canadian Drinking Water Guidelines. The use of this document for any other purposes is at the sole risk of the user.

We thank you for having Kinetic OHS Services conduct this work for you. Should you have any questions, please contact us at your earliest convenience.

Sincerely,

Kinetic OHS Services Ltd.

Jeff Lee, B.Tech. OHS Technologist
AHERA Building Inspector (CABI-20-060)
Site Investigation
Email: jeff@kineticohs.com

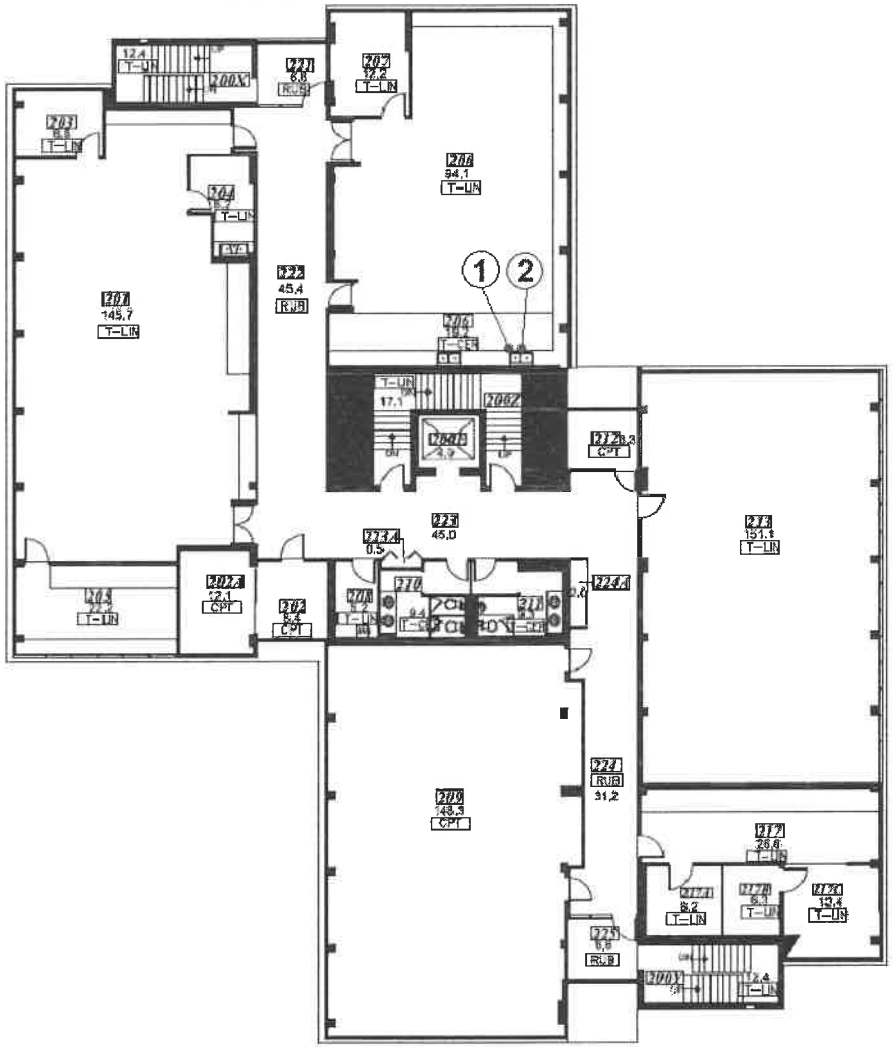
Jennifer Blair, MSc, CIH
Manager, Industrial Hygiene
Report Review
Email: jennifer@kineticohs.com
Cell: 604-816-5711

Harvey Wong, CRSP, ROHT
Director/Principal Consultant
Report Review
Email: harvey@kineticohs.com
Cell: 604-816-1290

File Reference: 8177-JB-R1 - Capilano University - Lead Water Sampling Report

Appendix A – Maps of Sample Locations

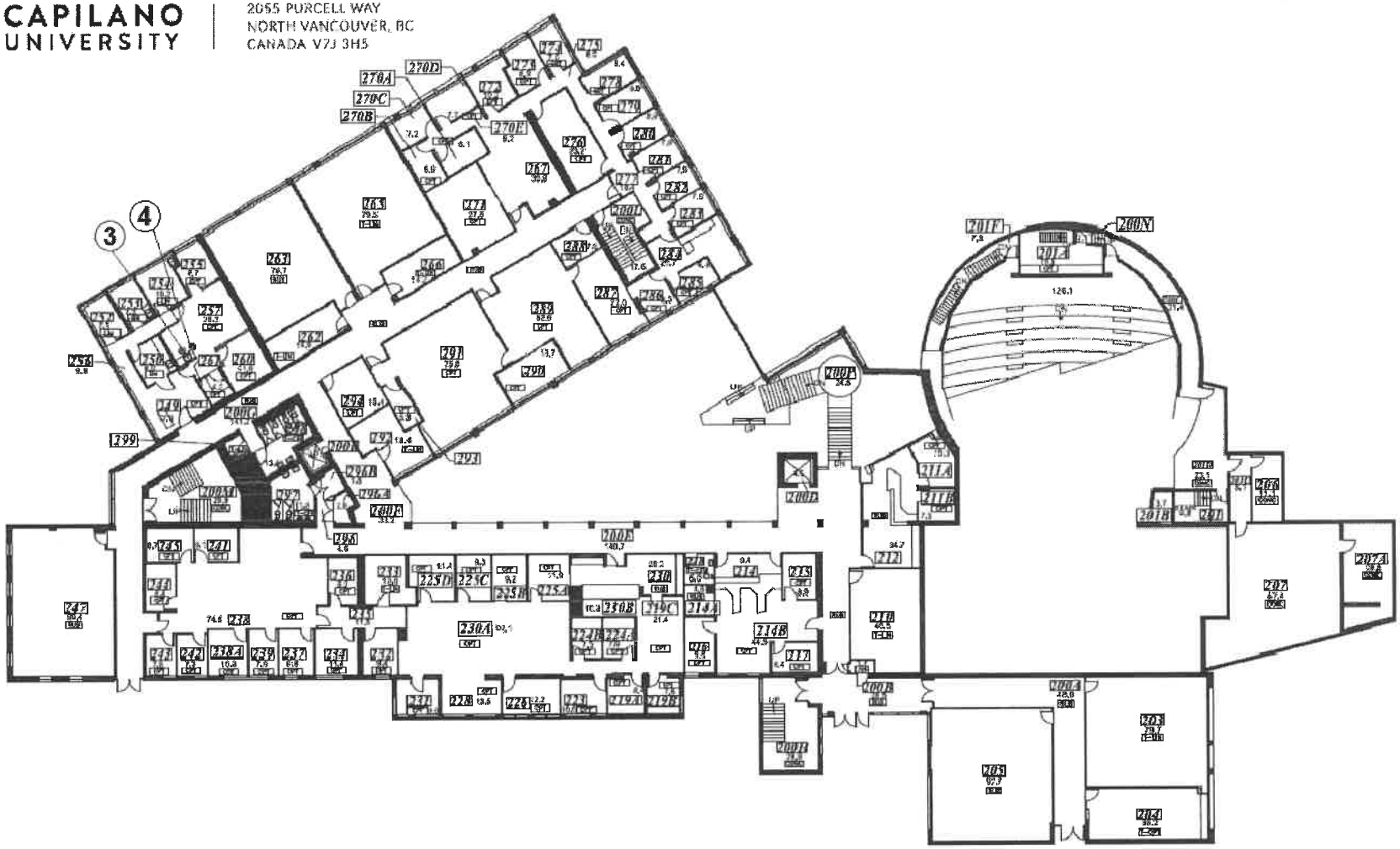
CAPILANO UNIVERSITY | 2055 PURCELL WAY
NORTH VANCOUVER, BC
CANADA V7J 3H5



ARBUTUS BUILDING SECOND FLOOR

CAPILANO UNIVERSITY

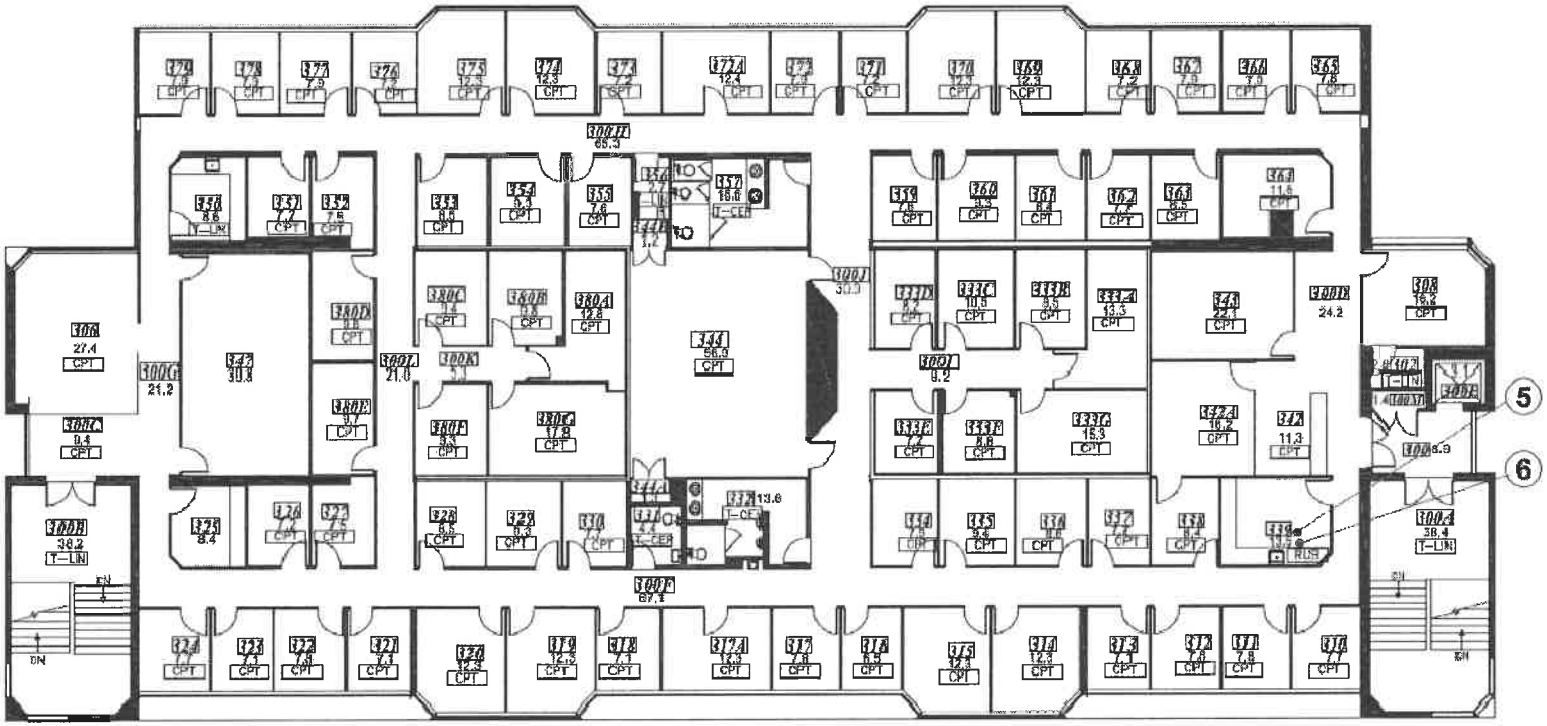
2055 PURCELL WAY
NORTH VANCOUVER, BC
CANADA V7J 3H5



BIRCH BUILDING | SECOND FLOOR

CAPILANO UNIVERSITY

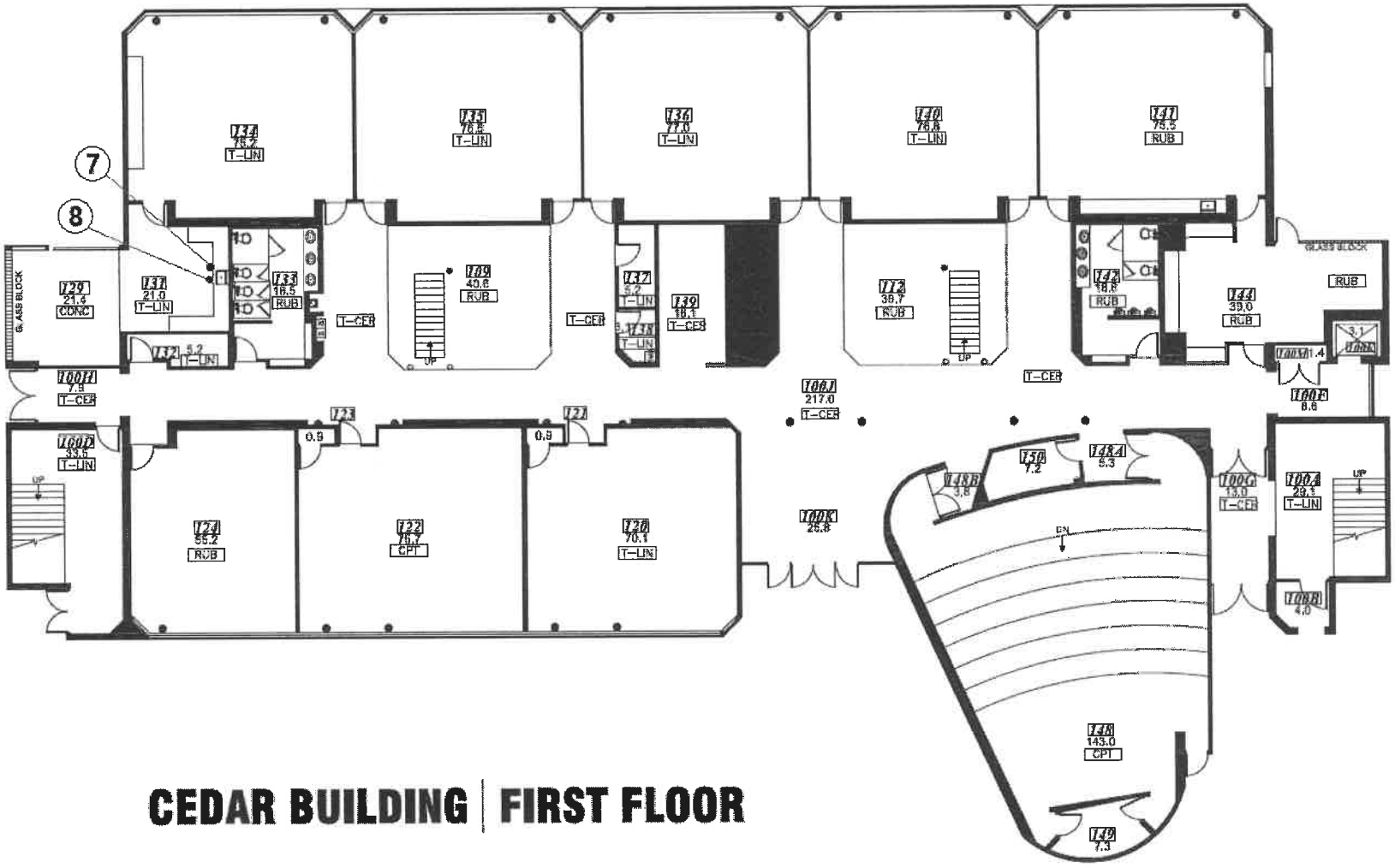
2055 PURCELL WAY
NORTH VANCOUVER, BC
CANADA V7J 3H5



CEDAR BUILDING | THIRD FLOOR

CAPILANO UNIVERSITY

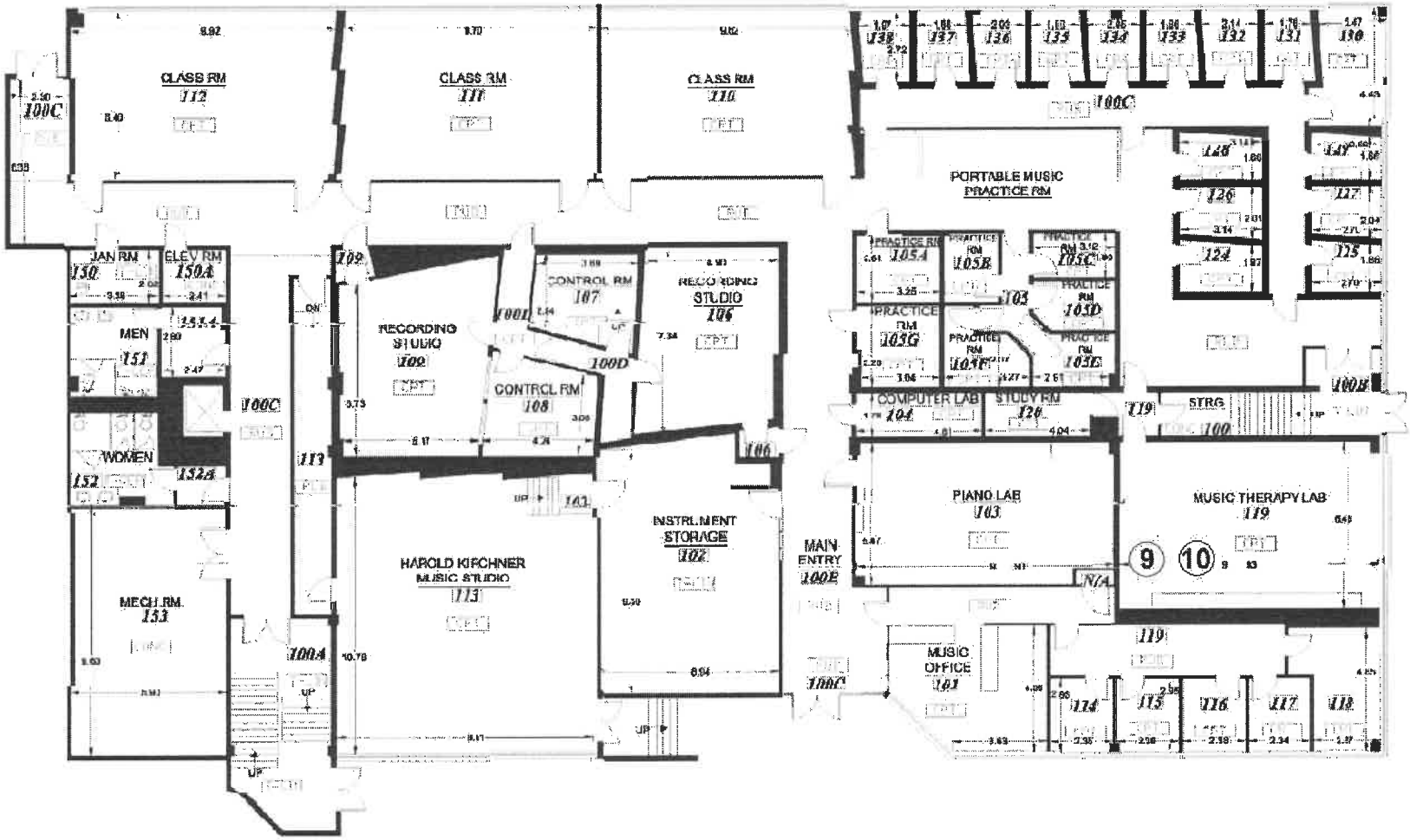
2055 PURCELL WAY
NORTH VANCOUVER, BC
CANADA V7J 3H5



CEDAR BUILDING | FIRST FLOOR

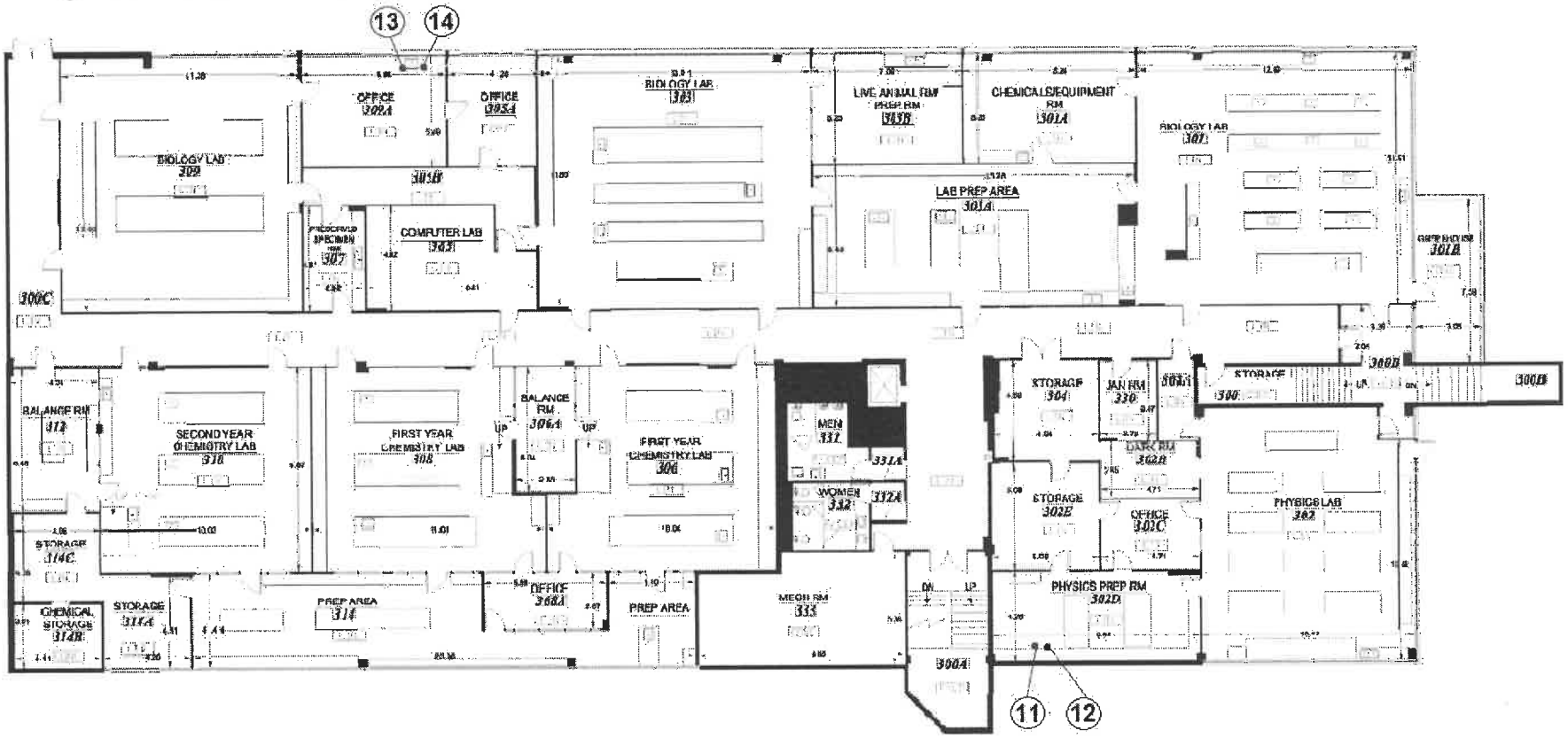
CAPILANO UNIVERSITY

2055 PURCELL WAY
NORTH VANCOUVER, BC
CANADA V7J 3H5



FIR BUILDING | FIRST FLOOR

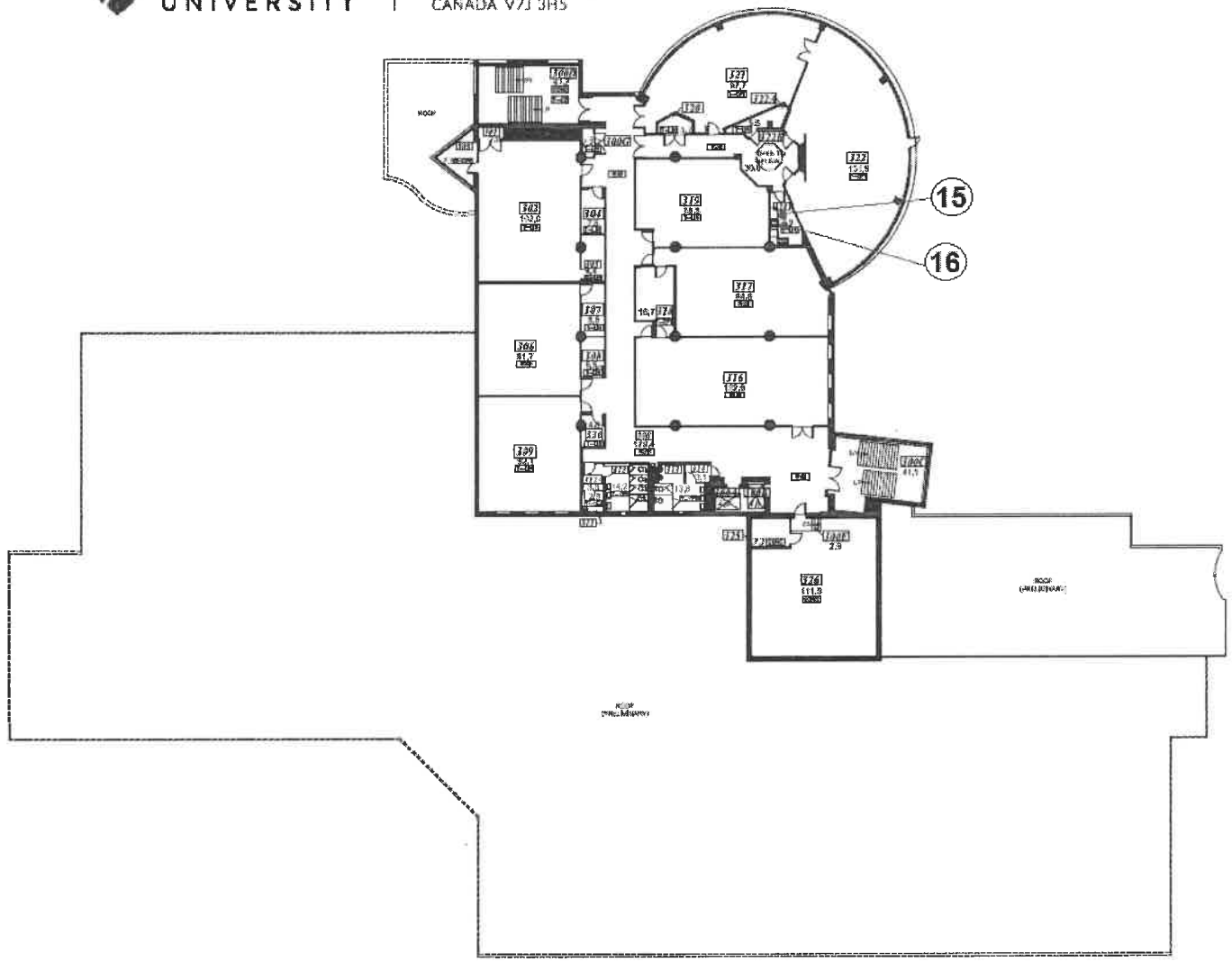
CAPILANO UNIVERSITY | 2055 PURCELL WAY
NORTH VANCOUVER, BC
CANADA V7J 3H5



FIR BUILDING | THIRD FLOOR

CAPILANO UNIVERSITY

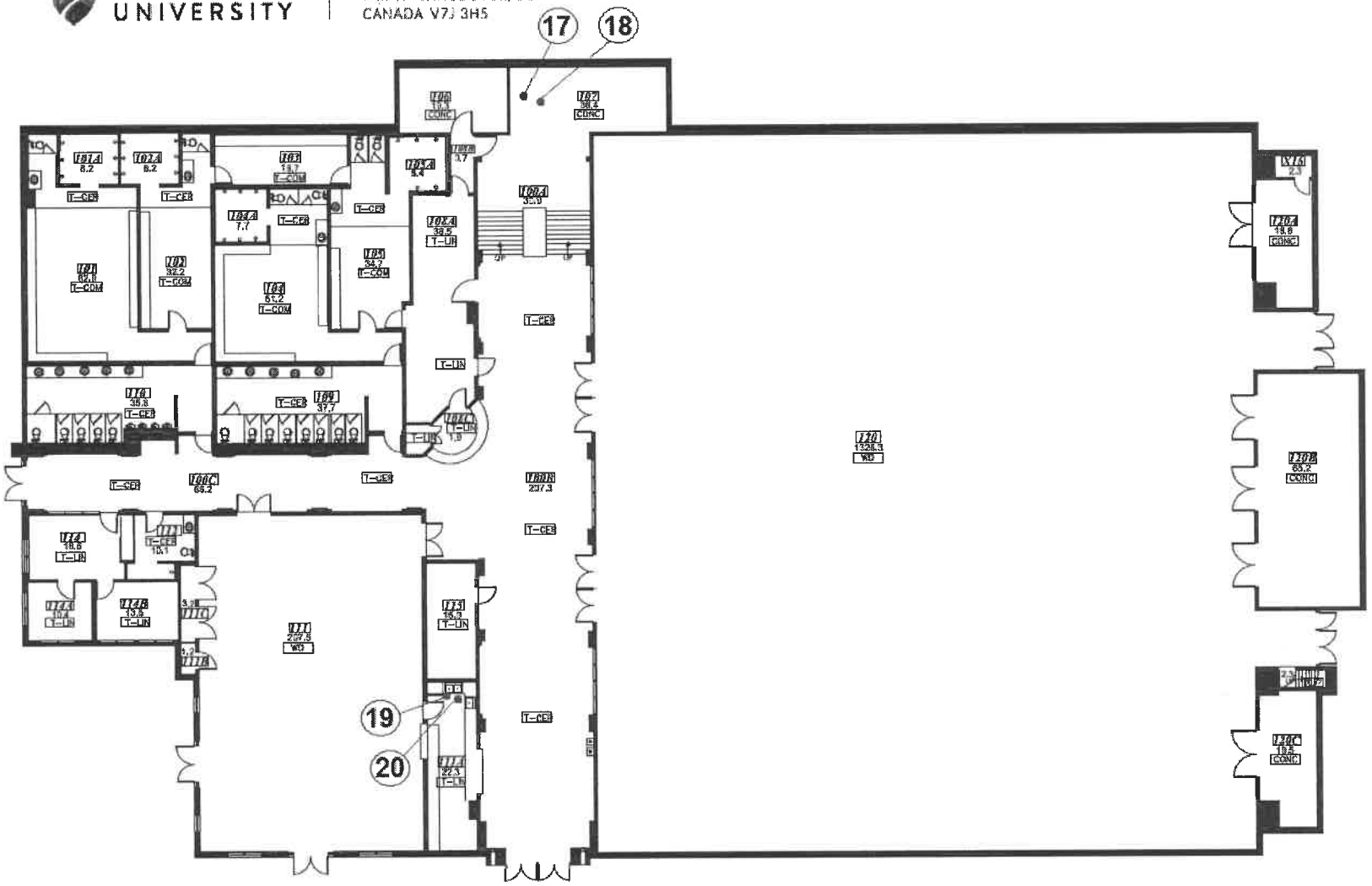
2055 PURCELL WAY
NORTH VANCOUVER, BC
CANADA V7J 3H5



LIBRARY BUILDING | THIRD FLOOR

CAPILANO UNIVERSITY

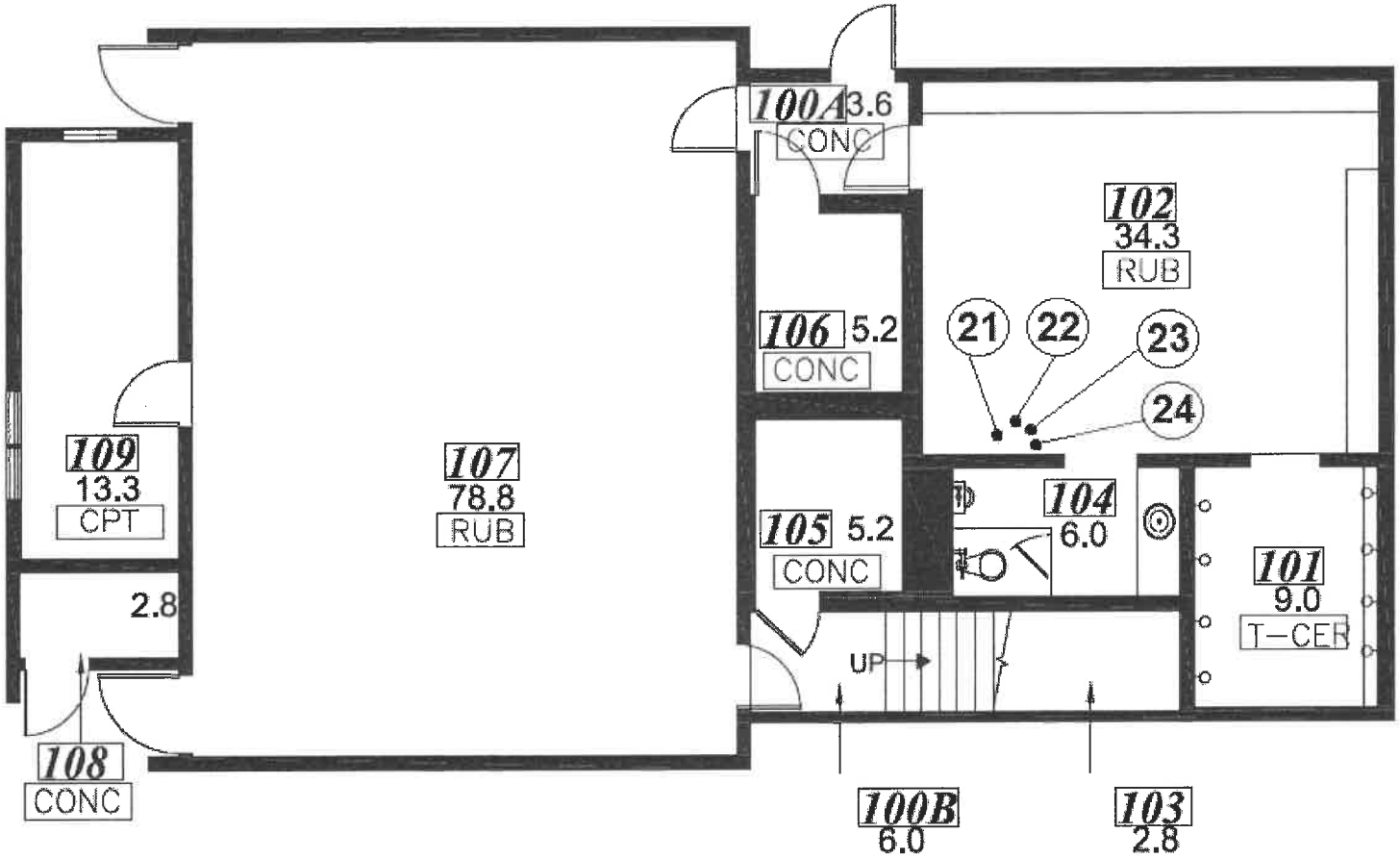
2055 PURCELL WAY
NORTH VANCOUVER, BC
CANADA V7J 3H5



SPORTSPLEX BUILDING | FIRST FLOOR

CAPILANO UNIVERSITY

2055 PURCELL WAY
NORTH VANCOUVER, BC
CANADA V7J 3H5



FITNESS CENTRE BUILDING | GROUND FLOOR

Appendix B – Analytical Results for Lead Water Samples

Your Project #: 8177-JB
Site Location: CAPILANO UNIVERSITY

Attention: Jeff Lee
KINETIC OHS SERVICES LTD.
#202 – 1520 Barrow Street
NORTH VANCOUVER, BC
CANADA V7J 1B7

Your C.O.C. #: 647320-01-01, 647320-02-01, 647320-06-01

Report Date: 2021/09/20
Report #: R3073824
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C168121
Received: 2021/09/13, 17:25

Sample Matrix: Drinking Water
Samples Received: 24

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Lead in Drinking Water	20	2021/09/15	2021/09/15	AB SOP-00014 / AB SOP-00043	EPA 6020b R2 m
Lead in Drinking Water	4	2021/09/16	2021/09/16	AB SOP-00014 / AB SOP-00043	EPA 6020b R2 m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, MELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Bureau Veritas Laboratories Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Your Project #: 8177-JB
Site Location: CAPILANO UNIVERSITY

Attention: Jeff Lee

KINETIC OHS SERVICES LTD.
#202 – 1520 Barrow Street
NORTH VANCOUVER, BC
CANADA V7J 1B7

Your C.O.C. #: 647320-01-01, 647320-02-01, 647320-06-01

Report Date: 2021/09/20
Report #: R3073824
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C168121
Received: 2021/09/13, 17:25

Encryption Key

AUTHORIZED REPORT
RAPPORT AUTORISÉ

Bureau Veritas
20 Sep 2021 13:41:53

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Customer Solutions, Western Canada Customer Experience Team
Email: customersolutionswest@bureauveritas.com
Phone# (604) 734 7276

==========

This report has been generated and distributed using a secure automated process.
BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Bureau Veritas Laboratories Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

BV Labs Job #: C168121
Report Date: 2021/09/20

KINETIC OHS SERVICES LTD.
Client Project #: 8177-JB
Site Location: CAPILANO UNIVERSITY
Sampler Initials: JL

ELEMENTS BY ATOMIC SPECTROSCOPY (DRINKING WATER)

BV Labs ID			AFW001	AFW002	AFW003		
Sampling Date			2021/09/12 07:00	2021/09/12 07:00	2021/09/12 07:00		
COC Number			647320-01-01	647320-01-01	647320-01-01		
	UNITS	MAC	8177-1 ARBUTUS BLDG. RM 206 KITCHEN FAUCET	8177-2 ARBUTUS BLDG. RM 206 KITCHEN FAUCET	8177-3 BIRCH BUILDING RM 257 OFFICE FAUCET	RDL	QC Batch
Elements							
Total Lead (Pb)	mg/L	0.005	0.0046	0.00039	0.030	0.00020	A352824

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

BV Labs ID			AFW004	AFW005	AFW006		
Sampling Date			2021/09/12 07:00	2021/09/12 07:00	2021/09/12 07:00		
COC Number			647320-01-01	647320-01-01	647320-01-01		
	UNITS	MAC	8177-4 BIRCH BUILDING RM 257 OFFICE FAUCET	8177-5 CEDAR BUILDING RM 339 STAFF RM FAUCET	8177-6 CEDAR BUILDING RM 339 STAFF RM FAUCET	RDL	QC Batch
Elements							
Total Lead (Pb)	mg/L	0.005	0.0015	0.0011	<0.00020	0.00020	A352824

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

BV Labs ID			AFW007	AFW008	AFW009		
Sampling Date			2021/09/12 07:00	2021/09/12 07:00	2021/09/12 07:00		
COC Number			647320-01-01	647320-01-01	647320-01-01		
	UNITS	MAC	8177-7 CEDAR BUILDING STORAGE RM 131 FAUCET	8177-8 CEDAR BUILDING STORAGE RM 131 FAUCET	8177-9 FIR BUILDING RM 119 MUSIC RM FAUCET	RDL	QC Batch
Elements							
Total Lead (Pb)	mg/L	0.005	0.015	0.00022	0.00090	0.00020	A352824

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

Bureau Veritas Laboratories Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

BV Labs Job #: C168121
Report Date: 2021/09/20

KINETIC OHS SERVICES LTD.
Client Project #: 8177-JB
Site Location: CAPILANO UNIVERSITY
Sampler Initials: JL

ELEMENTS BY ATOMIC SPECTROSCOPY (DRINKING WATER)

BV Labs ID			AFW010	AFW011	AFW012		
Sampling Date			2021/09/12 07:00	2021/09/12 07:00	2021/09/12 07:00		
COC Number			647320-01-01	647320-02-01	647320-02-01		
	UNITS	MAC	8177-10 FIR BUILDING RM 119 MUSIC RM FAUCET	8177-11 FIR BUILDING RM 602D PHYSICS FAUCET	8177-12 FIR BUILDING RM 602D PHYSICS FAUCET	RDL	QC Batch
Elements							
Total Lead (Pb)	mg/L	0.005	<0.00020	0.00033	<0.00020	0.00020	A352824

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

BV Labs ID			AFW013	AFW014	AFW015		
Sampling Date			2021/09/12 07:00	2021/09/12 07:00	2021/09/12 07:00		
COC Number			647320-02-01	647320-02-01	647320-02-01		
	UNITS	MAC	8177-13 FIR BUILDING RM 309 BIOLOGY FAUCET	8177-14 FIR BUILDING RM 309 BIOLOGY FAUCET	8177-15 LIBRARY RM 323 KITCHEN	RDL	QC Batch
Elements							
Total Lead (Pb)	mg/L	0.005	0.00093	<0.00020	0.0010	0.00020	A352824

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

BV Labs ID			AFW016	AFW017	AFW018		
Sampling Date			2021/09/12 07:00	2021/09/12 07:00	2021/09/12 07:00		
COC Number			647320-02-01	647320-02-01	647320-02-01		
	UNITS	MAC	8177-16 LIBRARY RM 323 KITCHEN	8177-17 CSW STORAGE RM COOLER FILL	8177-18 CSW STORAGE RM COOLER FILL	RDL	QC Batch
Elements							
Total Lead (Pb)	mg/L	0.005	0.00030	**0.0073**	0.00035	0.00020	A352824

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

Bureau Veritas Laboratories Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

BV Labs Job #: C168121
Report Date: 2021/09/20

KINETIC OHS SERVICES LTD.
Client Project #: 8177-JB
Site Location: CAPILANO UNIVERSITY
Sampler Initials: JL

ELEMENTS BY ATOMIC SPECTROSCOPY (DRINKING WATER)

BV Labs ID			AFW019	AFW020		AFW022		
Sampling Date			2021/09/12 07:00	2021/09/12 07:00		2021/09/12 07:00		
COC Number			647320-02-01	647320-02-01		647320-06-01		
	UNITS	MAC	8177-19 CSW WEIGHT ROOM CONCESSION DOUBLE SINK	8177-20 CSW WEIGHT ROOM CONCESSION DOUBLE SINK	QC Batch	8177-21 CSW MENS CHANGE RM FOUNTAIN	RDL	QC Batch
Elements								
Total Lead (Pb)	mg/L	0.005	0.00086	<0.00020	A352824	0.0015	0.00020	A354549

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

BV Labs ID			AFW023	AFW024	AFW025		
Sampling Date			2021/09/12 07:00	2021/09/12 07:00	2021/09/12 07:00		
COC Number			647320-06-01	647320-06-01	647320-06-01		
	UNITS	MAC	8177-22 CSW MENS CHANGE RM FOUNTAIN	8177-23 CSW MENS CHANGE RM FILLER STN	8177-24 CSW MENS CHANGE RM FILLER STN	RDL	QC Batch
Elements							
Total Lead (Pb)	mg/L	0.005	<0.00020	0.00023	<0.00020	0.00020	A354549

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

Bureau Veritas Laboratories Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

BV Labs Job #: C168121
Report Date: 2021/09/20

KINETIC OHS SERVICES LTD.
Client Project #: 8177-JB
Site Location: CAPILANO UNIVERSITY
Sampler Initials: JL

GENERAL COMMENTS

MAC: The guidelines that have been included in this report have been taken from the Canadian Drinking Water Quality Summary Table, September 2020.

Criteria A = Maximum Acceptable Concentration (MAC) / Criteria B = Aesthetic Objectives (AO) / Criteria C = Operational Guidance Values (OG)
It is recommended to consult these guidelines when interpreting your data since there are non-numerical guidelines that are not included on this report.

Turbidity Guidelines:
1. Chemically assisted filtration: less than or equal to 0.3 NTU in 95% of the measurements or 95% of the time each month. Shall not exceed 1.0 NTU at any time.
2. Slow sand / diatomaceous earth filtration: less than or equal to 1.0 NTU in 95% of the measurements or 95% of the time each month. Shall not exceed 3.0 NTU at any time.
3. Membrane filtration: less than or equal to 0.1 NTU in 99% of the measurements made or at least 99% of the time each calendar month. Shall not exceed 0.3 NTU at any time.
4. To ensure effectiveness of disinfection and for good operation of the distribution system, it is recommended that water entering the distribution system have turbidity levels of 1.0 NTU or less.
Measurement of Uncertainty has not been accounted for when stating conformity to the selected criteria, where applicable.

Results relate only to the items tested.

Bureau Veritas Laboratories Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

BV Labs Job #: C168121
Report Date: 2021/09/20

QUALITY ASSURANCE REPORT

KINETIC OHS SERVICES LTD.
Client Project #: 8177-JB
Site Location: CAPILANO UNIVERSITY
Sampler Initials: JL

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
A352824	Total Lead (Pb)	2021/09/15	110	80 - 120	107	80 - 120	<0.00020	mg/L	0.63	20
A354549	Total Lead (Pb)	2021/09/16	98	80 - 120	104	80 - 120	<0.00020	mg/L	1.5	20

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Bureau Veritas Laboratories Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

BV Labs Job #: C168121
Report Date: 2021/09/20

KINETIC OHS SERVICES LTD.
Client Project #: 8177-JB
Site Location: CAPILANO UNIVERSITY
Sampler Initials: JL

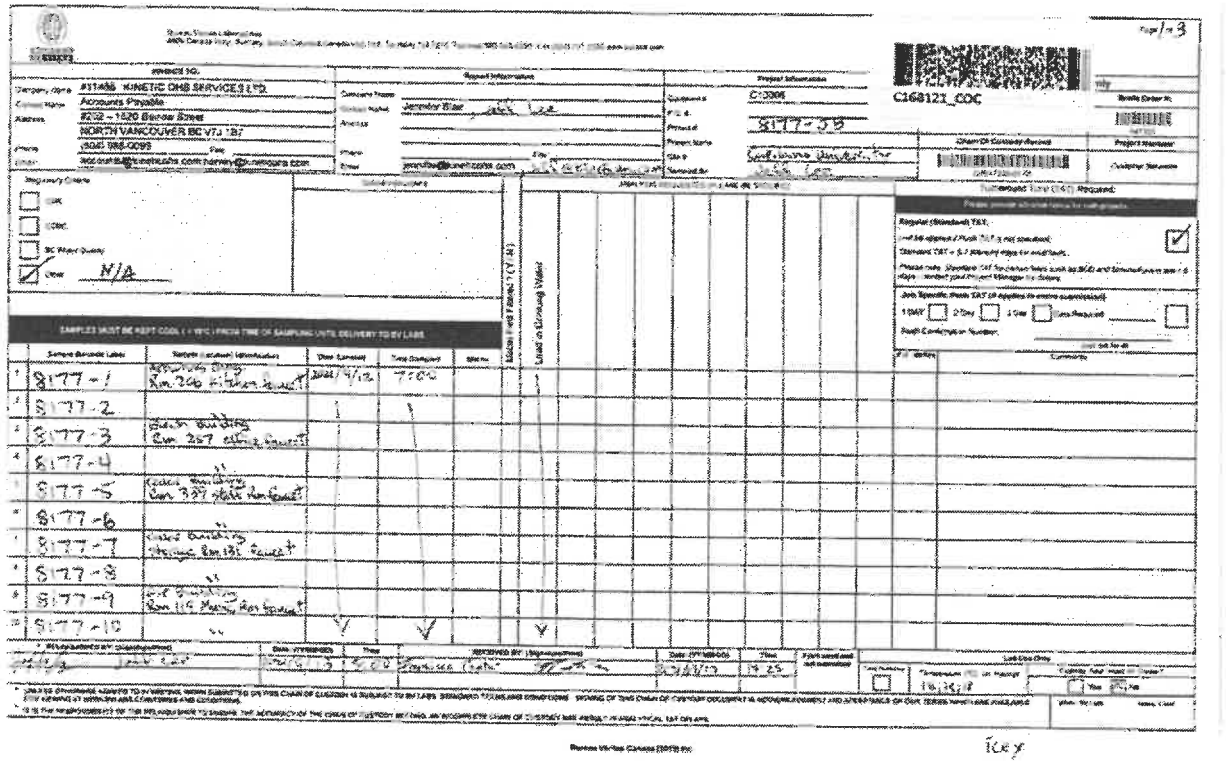
VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

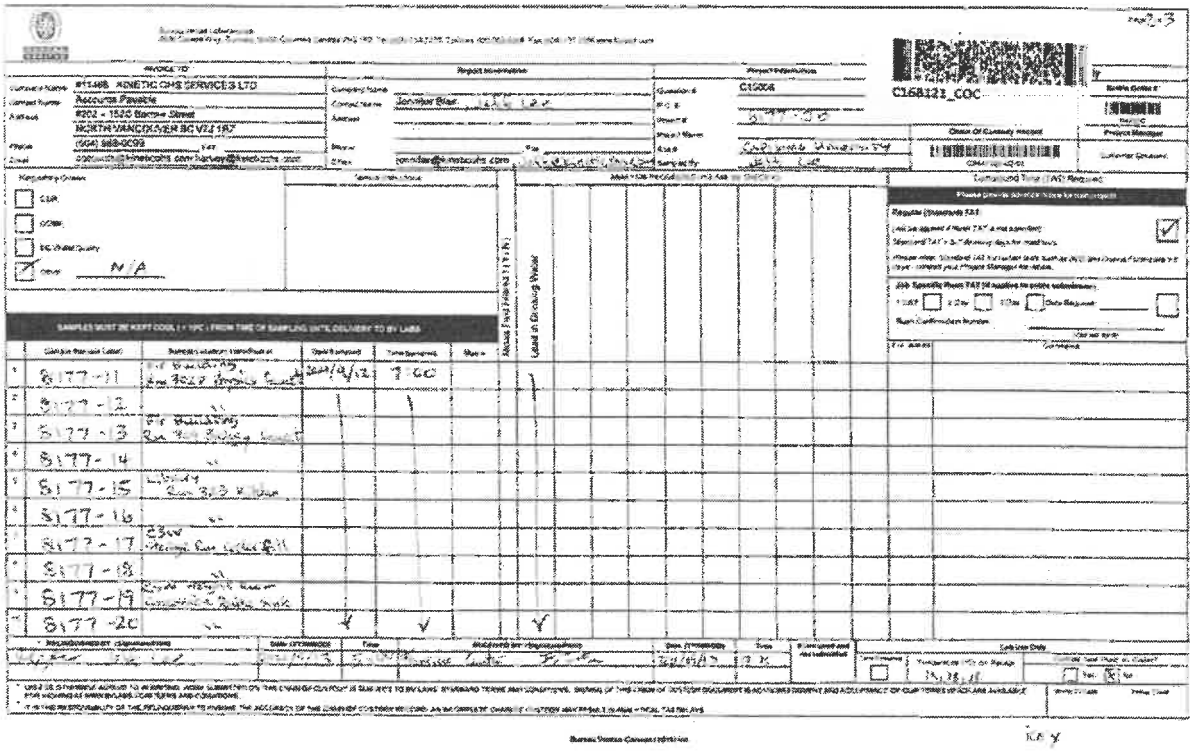
David Huang, M.Sc., P.Chem., QP, Scientific Services Manager

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Bureau Veritas Laboratories Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386



Page 9 of 11



Page 10 of 11

INVOICE TO:

Company Name: #11488 KINETIC OHS SERVICES LTD
Contact Name: Accounts Payable
Address: #202 - 1520 Barrow Street
NORTH VANCOUVER BC V7J 1B7
Phone: (604) 988-0009
Email: accounts@kineticohs.com

Report Information

Contact Name: Jennifer Blair Della Lee

Project Information

Quotation #: C10086

Project #: 8177-32

C168121_COC

Chain Of Custody Record

Turnaround Time (TAT) Required

Regulatory Criteria:

- [ ]
- [ ]
- [ ]
- [x] Other: N/A

SAMPLES MUST BE KEPT COOL FROM TIME OF SAMPLING UNTIL DELIVERY TO BV LABS

#	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix
1	8177-21	CSW ... Fountain	20../9/12	7:00	
2	8177-22	"			
3	8177-23	CSW ... Filler stn			
4	8177-24	"			
5					
6					
7					
8					
9					
10					

Lab Use Only

Temperature: 15, 11, 12