

December 30, 2016

Jeremy Miller
Maintenance Manager
Department of Administrative Services
Enterprise Asset Management Division
1225 Ferry Street SE
Salem, Oregon 97301

Via email: Jeremy.W.MILLER@oregon.gov

Regarding: Drinking Water Sampling for Lead

Albina State Office Building 30 North Webster Street Portland, Oregon 97217

PBS Project # 25103.003 Phase 0036

Dear Mr. Miller:

On October 19, 2016, PBS Engineering and Environmental Inc. (PBS) performed drinking water sampling at the Albina State Office Building located at 30 North Webster Street in Portland, Oregon. The testing was requested by State of Oregon Department of Administrative Services in an effort to ensure that concentrations of lead in drinking water remain below the EPA action level.

Sampling methodology and the interpretation of laboratory results were based on the EPA Lead and Copper Rule (LCR). Following LCR sampling guidelines, PBS collected the first 1000 milliliters (mL) of water from each test location (first draw) early in the morning following an overnight stagnation period. The LCR's stagnation period, and sampling protocol specifying the first 1000 mL samples, is designed to maximize the likelihood that the highest concentrations of lead are identified in water used for consumption. At each sample location, immediately following first draw sampling, a flush sample was collected after the water had been allowed to run for 30 seconds.

The water sampling process was supervised by a certified industrial hygienist (CIH) who is also an Oregon Health Authority certified lead risk assessor.

The action level set by the EPA for lead is 15 parts per billion (ppb). If the action level is exceeded in more than 10 percent of taps sampled, then action must be taken to control plumbing-material corrosion.

Fourteen first draw and flush drinking water samples were collected and delivered under chain of custody to BSK Laboratories in Vancouver, Washington for lead analysis. Initially, only first draw samples were analyzed. Any first draw sample that exceeded the EPA action level for lead had its associated flush sample analyzed.

Concentrations of lead in the first draw samples ranged from none detected to 6.5 ppb. Laboratory analysis indicates that all of these drinking water samples contained lead at concentrations below the EPA action level of 15 ppb.

The following table presents all first draw sample locations and lead concentrations in ppb.

First Draw Drinking Water Sample Locations and Lead Concentrations

Sample Number	Sample Location	Lead Concentration (ppb)
WF-ASO-001-FD	Water fountain child services adjacent to electrical closet room 5	ND
SK-ASO-003-FD	Lunch room shared employment/child services adjacent to room 2 kitchen sink	ND
WF-ASO-005-FD	Upper water fountain hallway adjacent to child services waiting room area and across from lunch room	1.5
WF-ASO-007-FD	Lower water fountain hallway adjacent to child services waiting room area and across from lunch room	ND
SK-ASO-009-FD	Break room employment first floor across from women's bathroom and janitor's closet, kitchen sink	ND
SK-ASO-011-FD	Rose conference room kitchenette employment kitchen sink	6.5
WF-ASO-013-FD	Water fountain across from Portland conference room between men's and women's bathrooms near employment	ND

ND: None Detected

Please refer to the attached Chain of Custody form and laboratory data for greater details. It should be noted that quality control (QC) sample results are included at the end of laboratory information. The QC samples are both laboratory blanks and spiked samples used internally by the laboratory to assess accuracy.

Please feel free to contact me at 503.417.7602 or derek.may@pbsenv.com with any questions or comments.

Sincerely,

PBS Engineering and Environmental Inc.

Derek May, Principal

Attachments: Laboratory Results
Chain of Custody Form

DM::bmp

The information contained in this document is proprietary and shall not be duplicated, used, or disclosed in whole or in part to other parties without the permission of PBS.



A6J2698 11/02/2016

Derek May PBS Environmental 4412 SW Corbett Ave Portland, OR 97239

RE: Report for A6J2698 Oregon DAS - Lead

Dear Derek May,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 10/20/2016. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2009 TNI Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an "as received" basis.

If additional clarification of any information is required, please contact your Project Manager, Debra Karlsson, at 559-497-2888.

Thanks again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

Debra Karlsson, Project Coordinator



Accredited in Accordance with NELAP ORELAP #4021

Page 1 of 15





Case Narrative

Project and Report Details Invoice Details

Client: PBS Environmental Invoice To: PBS Environmental Report To: Derek May Invoice Attn: Accounts Payable

Project #: Albina State Office Building #25103.003 PH 36 Project PO#: -

Received: 10/20/2016 - 09:00 **Report Due:** 11/03/2016

Sample Receipt Conditions

Cooler:Default CoolerContainers IntactTemperature on Receipt °C:19.6COC/Labels Agree

Received with no thermal preservation. Sample(s) split after receipt at the laboratory.

Initial receipt at BSK-VAL

Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

Report Distribution

Recipient(s) Report Format CC:

Derek May FINAL.RPT

^{***}None applied***





Albina State Office Building #25103.003 PH 36

Certificate of Analysis

Sample ID: A6J2698-01

Sample Date - Time: 10/19/16 - 00:00

Matrix: Drinking Water

Sampled By: Client

Sample Type: First Draw

Sample Description: WF-ASO-001-FD // Water fountain child services adjacent to electrical closet Room 5

BSK Associates Fresno

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Lead	EPA 200.8	ND	0.0010	mg/L	1	A614770	10/26/16	10/27/16	





Albina State Office Building #25103.003 PH 36

Certificate of Analysis

Sample ID: A6J2698-03

Sample Date - Time: 10/19/16 - 00:00

Matrix: Drinking Water

Sample Type: First Draw

Sampled By: Client

Sample Description: SK-ASO-003-FD // Lunch room shared employment/child

services adjacento to Room 2 kitchen sink

BSK Associates Fresno

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed Qual
Lead	EPA 200.8	ND	0.0010	mg/L	1	A614770	10/26/16	10/27/16





Albina State Office Building #25103.003 PH 36

Certificate of Analysis

Sample ID: A6J2698-05 Sampled By: Client

Sample Date - Time: 10/19/16 - 00:00

Matrix: Drinking Water

Sample Type: First Draw

Sample Description: WF-ASO-005-FD // Upper water fountain hallway adjacent to child services waiting room area and across from lunch room

BSK Associates Fresno

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Lead	EPA 200.8	0.0015	0.0010	mg/L	1	A614770	10/26/16	10/27/16	





Albina State Office Building #25103.003 PH 36

Certificate of Analysis

Sample ID: A6J2698-07 Sampled By: Client Sample Date - Time: 10/19/16 - 00:00

Matrix: Drinking Water

Sample Type: First Draw

Sample Description: WF-ASO-007-FD // Lower water fountain hallway adjacent to child services waiting room area and across from lunch room

BSK Associates Fresno

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Lead	EPA 200.8	ND	0.0010	mg/L	1	A614770	10/26/16	10/27/16	





Albina State Office Building #25103.003 PH 36

Certificate of Analysis

Sample ID: A6J2698-09 Sampled By: Client Sample Date - Time: 10/19/16 - 00:00

Matrix: Drinking Water

 $\textbf{Sample Description:} \ \ \text{SK-ASO-009-FD} \ \ \textit{//} \ \ \text{Breakroom employment 1st Floor across}$

Sample Type: First Draw

from ladie's bathroom and janitor's closet, kitchen sink

BSK Associates Fresno Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Lead	EPA 200.8	ND	0.0010	mg/L	1	A614770	10/26/16	10/27/16	





Albina State Office Building #25103.003 PH 36

Certificate of Analysis

Sample ID: A6J2698-11

Sample Date - Time: 10/19/16 - 00:00

Matrix: Drinking Water

Sample Type: First Draw

Sampled By: Client

Sample Description: SK-ASO-011-FD // Rose conference room kitchenette

employment kitchen sink

BSK Associates Fresno Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed Qu	ual
Lead	EPA 200.8	0.0065	0.0010	mg/L	1	A614770	10/26/16	10/27/16	





Albina State Office Building #25103.003 PH 36

Certificate of Analysis

Sample ID: A6J2698-13 Sampled By: Client Sample Date - Time: 10/19/16 - 00:00

Matrix: Drinking Water

Sample Type: First Draw

Sample Description: WF-ASO-013-FD // Water fountain across from Portland conference room in between men's/women's bathrooms near employme

BSK Associates Fresno

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed Qual
Lead	EPA 200.8	ND	0.0010	mg/L	1	A614770	10/26/16	10/27/16



BSK Associates Fresno Metals Quality Control Report

Analyte	Result	RL FPA 20	Units	Spike Level	Source Result	%REC	%REC Limits		RPD	Date	
		FPΔ 20				/011LO	LIIIIII	RPD	Limit	Analyzed	Qual
			00.8 - Qı	uality Co	ntrol						
Batch: A614770										Prepared:	10/26/2016
Prep Method: EPA 200.2 - Pb/Cu Rule										Ana	alyst: GNG
Blank (A614770-BLK1)											
Lead	ND	0.0010	mg/L							10/27/16	
Blank Spike (A614770-BS1)											
Lead	0.096	0.0010	mg/L	0.10		96	85-115			10/27/16	
Blank Spike Dup (A614770-BSD1)											
Lead	0.096	0.0010	mg/L	0.10		96	85-115	0	20	10/27/16	
Matrix Spike (A614770-MS1), Source: A6J	2625-25										
Lead	0.18	0.0020	mg/L	0.20	ND	91	70-130			10/27/16	
Matrix Spike (A614770-MS2), Source: A6J	2625-45										
Lead	0.20	0.0020	mg/L	0.20	ND	98	70-130			10/27/16	
Matrix Spike Dup (A614770-MSD1), Sourc	e: A6J2625-25										
Lead	0.19	0.0020	mg/L	0.20	ND	96	70-130	5	20	10/27/16	
Matrix Spike Dup (A614770-MSD2), Sourc	e: A6J2625-45										
Lead	0.20	0.0020	mg/L	0.20	ND	98	70-130	1	20	10/27/16	



Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- · Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- · Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.
- The MCLs provided in this report (if applicable) represent the primary MCLs for that analyte.

Definitions

mg/L:	Milligrams/Liter (ppm)	MDL:	Method Detection Limit	MDA95:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit: DL x Dilution	MPN:	Most Probable Number
μg/L:	Micrograms/Liter (ppb)	ND:	None Detected at RL	CFU:	Colony Forming Unit
μg/Kg:	Micrograms/Kilogram (ppb)	pCi/L:	Picocuries per Liter	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	RL Mult:	RL Multiplier	Present:	1 or more CFU/100mLs
NR:	Non-Reportable	MCL:	Maximum Contaminant Limit		

Please see the individual Subcontract Lab's report for applicable certifications.

BSK is not accredited under the NELAP program for the following parameters:

NA

Certifications: Please refer to our website for a copy of our Accredited Fields of Testing under each certification.

Fresno			
State of California - ELAP	1180	State of Hawaii	4021
State of Nevada	CA000792016-1	State of Oregon - NELAP	4021
EPA - UCMR3	CA00079	State of Washington	C997-16
Sacramento			
State of California - ELAP	2435		
San Bernardino			
State of California - ELAP	2993	State of Oregon - NELAP	4119-001

State of Oregon - NELAP WA100008-008 State of Washington C824-16

A6J2698 FINAL 11022016 1605

Printed: 11/2/2016

Vancouver

QA-RP-0001-10 Final.rpt



Engineering + Environmental

A6J2698 PBSEN1939



10/20/2016



25103.003

FACILITY NAME: AUDINA	STATE OFFICE BUILDING	PROJECT#: PH 3
	B) IN DRINKING WATER (CU) IN DRINKING WATER	DATE: 10/19/16
RELING'D BY/SIGNATURE: M.	ike dolden / With An	DATE/TIME: 10/19/16 (700)
1.6" RECEIVED BY/SIGNATURE	Janzell Langell	DATE/TIME: 10 20/16 0500
EMAIL RESULTS TO: derek.	may epbsen v. com	TURN AROUND TIME: 7-10 days

LAB	SAMPLE#	BUILDING	ROOM	LOCATION IN ROOM
1	WF - ASO-001-FO.			Woder Fountain, Child Services,
2	WF-ASO-002-FL			advagent to Electrical Closet Room #
3	SIC-AS 0- 003-FD		"	Breatroom Lunch Room Shared
4	5x-ASO-0:04-FL			Employment Child, Sorvices, adjace
	0P 7100 00 1	-Activities - Marian		to Room # 2, Kitchen Sink
5	WF-ASU- 005-FD			Mayor Formain Cupper) hallwa
6	WF-A50-006-FL			abjacent to child Socies would
				Water Fountain Cupper) hallwal abjacent to Unité Services wantle 100m urea and across from
				which room.
7	WF-ASO- 009-FD			Water Fountain Clower hallway at
ç	WF-ASO-008-FL	- A		to child bernices wanting room ac
3				from Lunch Ropall
2.9	SK-A50-009-FD			Breakroom, Employment, 15t Floor, across from Ladies backproom and Janitors closety Kitchen Sink
10	5K-ASO-010-FU			FIRE across from Lables ballyroom
		ALF SALES		and varitors closet , Kitchen Stak
11	SK-ASD-OIL-FO			Rose Room (Conference Room),
	SK-ASO-DIZ-FL			Kitchwette, Employment, Kitch
				Kitchente, Employment, Kitch
		72000 A 200 00 00 00 00 00 00 00 00 00 00 00 00		
13	WF-ASD-013-FD			Water Fountain, across from
14	WF-A50-014-FU			Portland Room (cont. room) in
				between news womans bad In Flow
				near Employment waiting wear
				J

A6J2698 PBSEN1939 10/20/2016

10

Sample Integrity

BSK Bottles: (Yes No Page of Was temperature within range? Were correct containers and preservatives Yes No (NA Yes No NA Chemistry ≤ 6°C Micro < 10°C received for the tests requested? COC Info If samples were taken today, is there evidence Were there bubbles in the VOA vials? Yes No NA Yes No (NA (Volatiles Only) that chilling has begun? Did all bottles arrive unbroken and intact? Yes No Was a sufficient amount of sample received? Yes Did all bottle labels agree with COC? Yes Do samples have a hold time <72 hours? No Was sodium thiosulfate added to CN sample(s) Was PM notified of discrepancies? Yes Nol Yes until chlorine was no longer present? By/Time: 250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V) Checks Passed? Bacti Na₂S₂O₃ None (P)White Cap Cr6 (P) Lt. Green Label/Blue Cap NH4OH(NH4)2SO4 DW CI, pH > 8 Y N Cr6 (P) Pink Label/Blue Cap NH40H(NH4)2SO4 WW pH 9.3-9.7 Y N Cr6 (P) Black Label/Blue Cap NH4OH(NH4)2SO4 7199 pH 9.0-9.5 Y N ***24 HOUR HOLD TIME*** HNO3 (P) Bed Cap or HCI (P) Purple Cap/Lt. Blue Label Yellow Cap/Label H₂SO₄ (P) or (AG) pH < 2 Y N NaOH (P) Green Cap Cl, pH >10 Y N NaOH + ZnAc (P) pH > 9 Y N Dissolved Oxygen 300ml (g) 5 None (AG) 608/8081/8082, 625, 632/8321, 8151, 8270 **Bottles Received** HCI (AG)Lt. Blue Label O&G, Diesel Ascorbic, EDTA, KH2Ct (AG)Pink Label 525 Na₂O₃S 250mL (AG)Neon Green Label 515 Na₂S₂O₃ 1 Liter (Brown P) 549 Na₂S₂O₃ (AG)^{Blue Label} 548, THM, 524 Na₂S₂O₃ (CG) Blue Label 504, 505, 547 Na₂S₂O₃ + MCAA (CG)^{Orange Label} 531 pH < 3YN NH₄CI (AG)^{Purple Label} 552 EDA (AG)Brown Label DBPs HCL (CG) 524.2, BTEX, Gas, MTBE, 8260/624 Buffer pH 4 (CG) H₃PO₄ (CG)Salmon Label Other: Asbestos 1Liter Plastic w/ Foil Low Level Hg / Metals Double Baggie **Bottled Water** Clear Glass 250mL / 500mL / 1 Liter Soil Tube Brass / Steel / Plastic **Tedlar Bag** / Plastic Bag Container Preservative Date/Time/Initials Container Preservative Date/Time/Initials Split 2504 S)P * Odd numbers only. Rik Comments

Page 13 of 15

Labels checked by:







10242016

PBSEN1939

Turnaround: Standard

Due Date: 11/3/2016



PBS Environmental





Sample Integrity

BSK Bottles: Yes No Page of Was temperature within range? Were correct containers and preservatives Yes No (NA Yes No NA Chemistry ≤ 6°C Micro < 10°C received for the tests requested? If samples were taken today, is there evidence Were there bubbles in the VOA vials? Yes. No NA. that chilling has begun? Yes No (NA (Volatiles Only) Did all bottles arrive unbroken and intact? Xes Was a sufficient amount of sample received? No Yes No Did all bottle labels agree with COC? Yes Do samples have a hold time <72 hours? Yes (No Was sodium thiosulfate added to CN sample(s) Was PM notified of discrepancies? ŇΑ Yes No until chlorine was no longer present? No NA Yes PM: By/Time: 250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V) Checks Passed? Bacti Na₂S₂O₃ None (P)White Cap Cr6 (P) Lt. Green Label/Blue Cap NH4OH(NH4)2SO4 DW Cl, pH > 8 N Cr6 (P) Pink Label/Blue Cap NH40H(NH4)2SQ4 WW pH 9.3-9.7 Υ N Cr6 (P) Black Label/Blue Cap NH40H(NH4)2SO4 7199 pH 9.0-9.5 Y N ***24 HOUR HOLD TIME*** HNO₃ (P) Bed Cap or HCI (P) Purple Cap/Lt. Blue Label H₂SO₄ (P) or Yellow Cap/Label pH < 2 Y N NaOH (P) Green Cap CI, pH >10 NaOH + ZnAc (P) pH > 9YN Dissolved Oxygen 300ml (g) None (AG) 608/8081/8082, 625, 632/8321, 8151, 8270 **Bottles Received** HCI (AG)Lt. Blue Label O&G, Diesel Ascorbic, EDTA, KH2Ct (AG)Pink Label 525 Na₂O₃S 250mL (AG)Neon Green Label 515 Na₂S₂O₃ 1 Liter (Brown P) 549 Na₂S₂O₃ (AG)^{Blue} Label 548, THM, 524 Na₂S₂O₃ (CG) Blue Label 504, 505, 547 Na₂S₂O₃ + MCAA (CG)^{Orange Label} 531 E > HaN NH₄Cl (AG)^{Purple Label} 552 EDA (AG)Brown Label DBPs HCL (CG) 524.2,BTEX,Gas, MTBE, 8260/624 Buffer pH 4 (CG) H₃PO₄ (CG)Salmon Label Other: Asbestos 1Liter Plastic w/ Foil Low Level Hg / Metals Double Baggie **Bottled Water** Clear Glass 250mL / 500mL / 1 Liter Soil Tube Brass / Steel / Plastic Tedlar Bag / Plastic Bag Container Preservative Date/Time/Initials Container Preservative Date/Time/Initials 250 \$ S)P SP SP * Odd numbers only. RUR All containers received inte Comments