



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

PO Box 47775 • Olympia, Washington 98504-7775 • (360) 407-6300

May 28, 2014

Blake Perkins  
Perkins Northwest Leasing & Financing LLC  
2616 NE 112th Avenue  
Vancouver, WA 98684

**RE: Site Hazard Assessment Completion  
Ecology Facility Site ID: 10775**

Dear Mr. Blake Perkins:

Clark County Public Health (CCPH) has completed the Site Hazard Assessment (SHA) of the Today's Family Dentistry site at 2616 NE 112<sup>th</sup> Avenue, Vancouver, WA. The action by CCPH was under the authority of the Washington State Department of Ecology (Ecology) as required by the Model Toxics Control Act (Chapter 70.1 05D RCW).

Based on this work, a hazard ranking of **2** has been assigned to this site. The hazard ranking is an estimation of the potential threat to human health and/or the environment, relative to all other Washington State sites assessed at this time. The ranking scale is 1 to 5, with 1 representing the highest relative risk and 5 the lowest relative risk. The site will be placed on Ecology's Hazardous Sites List, a compilation of these rankings updated twice a year.

Ecology will publish the ranking of this and other recently assessed sites in the August 2014 Site Register Special Issue (Hazardous Sites List). The site hazard ranking will be used in addition to other site-specific considerations in determining Ecology's priority for future actions. Please contact Bryan DeDoncker with CCPH at (360) 397-8153 if you have any questions regarding the SHA of this site. If you have questions about the ranking process, or further activities at the site related to this listing, please call me at (360) 407-6388.

Sincerely,

Cris Matthews  
Toxics Cleanup Program  
Washington State Department of Ecology

CM/ksc: SHA Result notice for FS 10775

By certified mail: (7012 2210 0002 6581 2007)

cc: Bryan DeDoncker, Clark County Public Health



# SITE HAZARD ASSESSMENT

## WORKSHEET 1

### Summary Score Sheet

#### SITE INFORMATION:

Today's Family Dentistry

2616 NE 112<sup>th</sup> Ave.

Vancouver, Clark County, WA 98684

Section/Township/Range: Sec. 21/T2N/R2E

Latitude: 45.64175

Longitude: -122.55852

Ecology Facility Site ID No.: 10775

*Site scored/ranked for the August 2014 update*

#### SITE DESCRIPTION (management areas, substances of concern, and quantities):

The Today's Family Dentistry site was placed on the Washington State Department of Ecology's (Ecology) database of Confirmed and Suspected Contaminated Sites on January 6<sup>th</sup>, 2011 as a result of a confirmed presence of high concentrations of mercury (Hg) & silver (Cr) in the onsite septic system (OSS). Sludge material in the OSS tank was designated as dangerous waste per WAC 173-303-070.

On February 18th, 2010, Clark County Public Health (CCPH) and Ecology conducted a site investigation to evaluate the OSS waste at the property owner's permission. The tank was evaluated due to concerns that hazardous materials may have been released to the OSS. The investigation confirmed, through direct observation and analytical results, that industrial waste was discharged into the OSS. One sample was collected from the septic tank sludge and analyzed for priority pollutant heavy metals. Test results of the septic tank sludge revealed high levels of mercury, silver, copper, and zinc causing the waste to designate as dangerous waste. See TABLE 1.

**TABLE 1: Septic Tank Sludge Sampling Results (Metals)**

Sample Name	Analyte	Analytical Result
001	Arsenic	5.38 mg/kg
	Barium	372 mg/kg
	Cadmium	ND
	Chromium	28.1 mg/kg
	Copper	3,210 mg/kg
	Lead	107 mg/kg
	Mercury	4,410 mg/kg
	Nickel	35.4 mg/kg
	Selenium	ND
	Silver	6,940 mg/kg
	Zinc	2,330 mg/kg

Historical records show that the current dental office building was established in the 1983. However, Clark County records show that a pre-existing house on the property was used as a dental office in 1982. The same OSS has been used for the site's wastewater treatment since at least 1982.

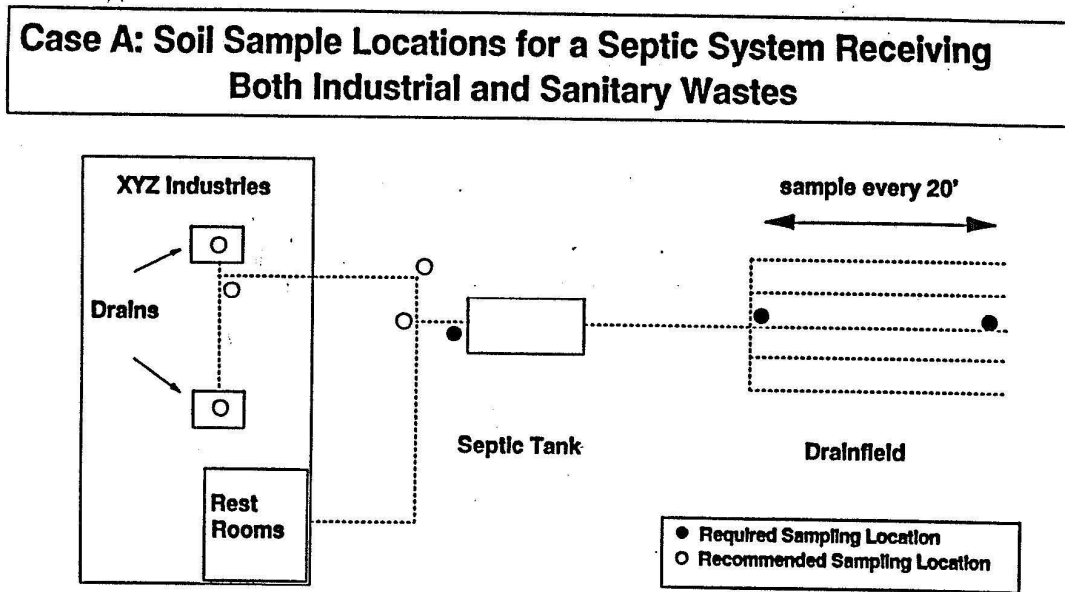
The Today's Family Dentistry site is situated immediately outside the 10 year zone of contribution for a major municipal water source serving the City of Vancouver (Water Station 7). Therefore, any potential impact to the groundwater aquifer is a concern for the City of Vancouver and its residents. Due to the potential for groundwater impacts to affect the public's health, subsurface investigation was deemed a necessary component of this SHA.

On December 10, 2012, Ecology sent the property owners a letter notifying them that CCPH will be conducting a Site Hazard Assessment (SHA), on behalf of Ecology, in the near future. On January 30, 2013, CCPH and the property owners scheduled the site visits necessary for conducting the SHA.

On January 31, 2013, Clark County Public Health contracted GPR Data, Inc. to locate septic system components and their depth via ground penetrating radar technology. Ground penetrating radar was a necessary part of the SHA site work for determining ground boring and subsurface sample collection locations. The septic locating ground markings show the location of the 2,000 gallon (approx.) septic tank and three 61ft long (approx.) drainfield laterals that head towards the southern direction. See FIGURE 3.

On February 14, 2013, subsurface soil and groundwater sampling was conducted at the site. Cascade Drilling, L.P., was contracted by CCPH to install four borings, via direct-push boring, for subsurface sample collection near septic system components. The location of the ground borings were determined after considering guidance listed in the U.S. Environmental Protection Agency (EPA) "1992 Guidelines for Closure of Shallow Disposal Wells". See FIGURES 1 & 2.

**FIGURE 1: EPA Guidance for OSS Soil Sample Locations (Plan View)**



**FIGURE 2: EPA Guidance for OSS Soil Sample Locations (Side View)**

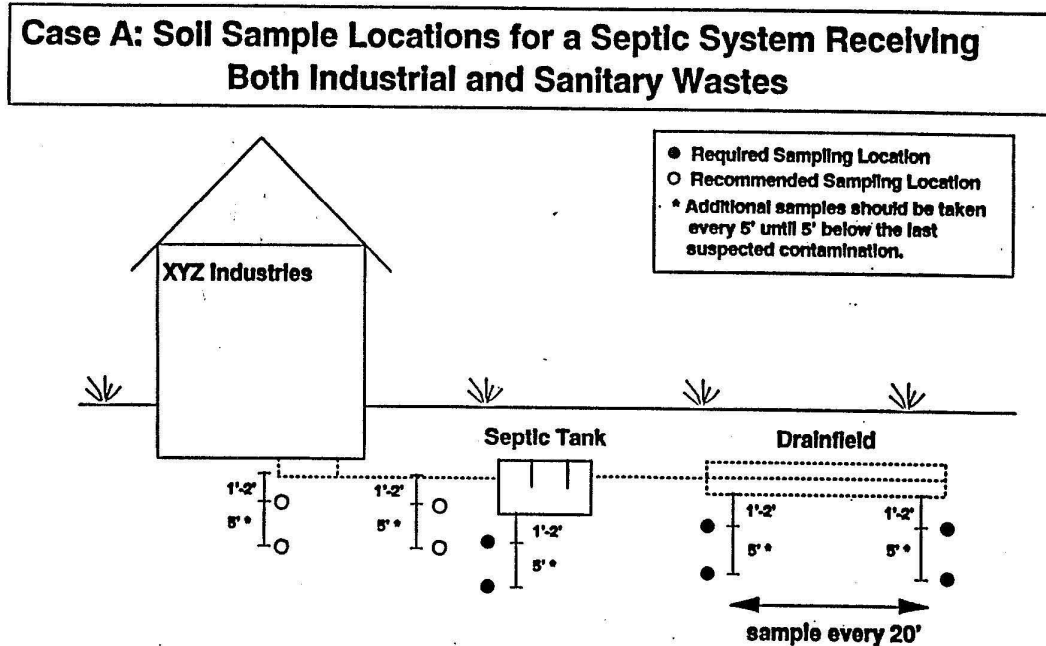


FIGURE 3 displays the approximate location of the septic tank and drainfield laterals (illustrated in red), and approximate location of ground borings B1-B4 (illustrated in green). See FIGURE 3 & TABLE 2 for ground boring location details.

**FIGURE 3: OSS Layout & Boring Locations**



**TABLE 2: Ground Boring Log**

	<b>Boring Description</b>	<b>Total Depth (bgs)*</b>	<b>Soil Sample Name &amp; Depth (bgs)*</b>	<b>Depth to Groundwater (bgs)*</b>
<b>B1</b>	Located immediately outside the previous septic tank area, near the transport line.	15'	B1-SS1 = 9.5' B1-SS2 = 13.0'	B1-GWS1 = 8.5'
<b>B2</b>	Located approximately 4' from the septic tank area, between the drainfield laterals.	15'	B2-SS1 = 4.5' B2-SS2 = 8.0' B2-SS3 = 13.0'	B2-GWS1 = 9.0'
<b>B3</b>	Located approximately 27' from the septic tank area, between the drainfield laterals.	20'	B3-SS1 = 7.0' B3-SS2 = 10.5' B3-SS3 = 15.5'	B3-GWS1 = 10.0'
<b>B4</b>	Located approximately 50' from the septic tank area, between the drainfield laterals.	20'	B4-SS1 = 7.0' B4-SS2 = 10.5' B4-SS3 = 15.5'	B4-GWS1 = 10.0'

Note: One 10' screen was installed at the bottom of each ground boring. Due to groundwater intrusion, it was determined that ground borings B1-B4 only required a 15-20' bgs installation to adequately collect subsurface soil and groundwater samples.

\* The abbreviation (bgs) refers to "below ground surface".

All subsurface soil and groundwater samples were collected and analyzed for Priority Pollutant Metals in accordance with appropriate EPA Methods. Soil cores were not favorable for sample collection and analysis, consisting entirely of loose gravels and sands. Despite unfavorable soil characteristics and a

shallow vadose zone, soil samples were collected at approximate interval depths of 18", 5', & 10' below the bottom of the existing septic tank and/or drainfield lateral (totaling 2-3 soil samples per boring) at each ground boring location. Only 2-3 soil samples were collected instead of 4 due to the shallow depth to groundwater. Only 2 soil samples were collected from boring B1 due to depth of the septic tank in relation to groundwater depth.

Arsenic (As), total chromium (Cr), and lead (Pb) were the metals consistently detected in subsurface soils. Other metals were found at low concentrations (such as mercury & nickel), however As, Cr, and Pb were consistently detected in all soil samples. Chromium (total) was the only contaminant detected in subsurface soil samples exceeding its respective MTCA Method A Cleanup Level of 19 mg/kg. Samples B1-SS1, B1-SS3, B2-SS1, B2-SS2, B2-SS3, B3-SS3, B4-SS2, & B4-SS3 had a chromium (total) exceedance. See TABLE 3 for soil sample results.

**TABLE 3: Soil Sample Results**

	Soil Sample Name & Depth (bgs)	Soil Description*	Analytical Results (mg/kg)	MTCA Method A Cleanup Level (mg/kg)
<b>B1</b>	B1-SS1 @ 9.5'	loose sand & gravel	Arsenic = 5.9	Arsenic = 20
			Chromium = 18	Chromium VI = 19
			Lead = 5.2	Lead = 250
	B1-SS2 @ 13.0'	loose sand & gravel	Arsenic = 2.9	Arsenic = 20
			Chromium = 17	Chromium VI = 19
			Lead = 4.7	Lead = 250
<b>B2</b>	B2-SS1 @ 4.5'	loose sand & gravel	Arsenic = 3.5	Arsenic = 20
			<b>Chromium = 28</b>	Chromium VI = 19
			Lead = 8.5	Lead = 250
	B2-SS2 @ 8.0'	loose sand & gravel	Arsenic = 2.6	Arsenic = 20
			Chromium = 17	Chromium VI = 19
			Lead = 5.3	Lead = 250
			Mercury = 0.47	Mercury = 2.0
	B2-SS3 @ 13.0'	loose sand & gravel	Arsenic = 2.8	Arsenic = 20
			Chromium = 16	Chromium VI = 19
			Lead = 4.1	Lead = 250
			Mercury = 0.13	Mercury = 2.0
	<b>B3</b>	B3-SS1 @ 7.0'	loose sand & gravel	Arsenic = 2.8
<b>Chromium = 24</b>				Chromium VI = 19
Lead = 5.5				Lead = 250
B3-SS2 @ 10.5'		loose sand & gravel	Arsenic = 4.1	Arsenic = 20
			<b>Chromium = 31</b>	Chromium VI = 19
			Lead = 6.2	Lead = 250
B3-SS3 @ 15.5'		loose sand & gravel	Arsenic = 5.0	Arsenic = 20
			<b>Chromium = 23</b>	Chromium VI = 19
			Lead = 5.3	Lead = 250

<b>B4</b>	B4-SS1 @ 7.0'	loose sand & gravel	Arsenic = 1.9	Arsenic = 20
			Chromium = 18	Chromium VI = 19
			Lead = 4.1	Lead = 250
	B4-SS2 @ 10.5'	loose sand & gravel	Arsenic = 2.2	Arsenic = 20
			Chromium = 14	Chromium VI = 19
			Lead = 5.0	Lead = 250
	B4-SS3 @ 15.5'	loose sand & gravel	Arsenic = 3.6	Arsenic = 20
			<b>Chromium = 20</b>	Chromium VI = 19
			Lead = 5.2	Lead = 250

Note: Since total chromium was analyzed without speciation, the more conservative Chromium VI cleanup level will be used.

\*Soil Description – subsurface soils were very poor for the collection and analysis of chemical contaminants. Soil cores & samples consisted solely of loose gravels and sands.

Groundwater samples were collected from each ground boring location in accordance with EPA sampling methods. One 10' screen was set at the bottom of each ground boring. Groundwater samples were then collected, using a peristaltic pump, at approximately 18" above the bottom of each boring and analyzed for priority pollutant heavy metals.

Arsenic and Chromium (total) were found to exceed their respective MTCA Method A Cleanup Levels in Groundwater samples B1-GWS1, B2-GWS1, B3-GWS1, and B4-GWS1. Lead was found to exceed its respective MTCA Method A Cleanup Levels in groundwater samples B1-GWS1, B2-GWS1, and B4-GWS1. Other heavy metals were detected in groundwater (i.e. cadmium, selenium, nickel, mercury, etc...) but concentrations did not exceed their respective MTCA standards. See TABLE 4.

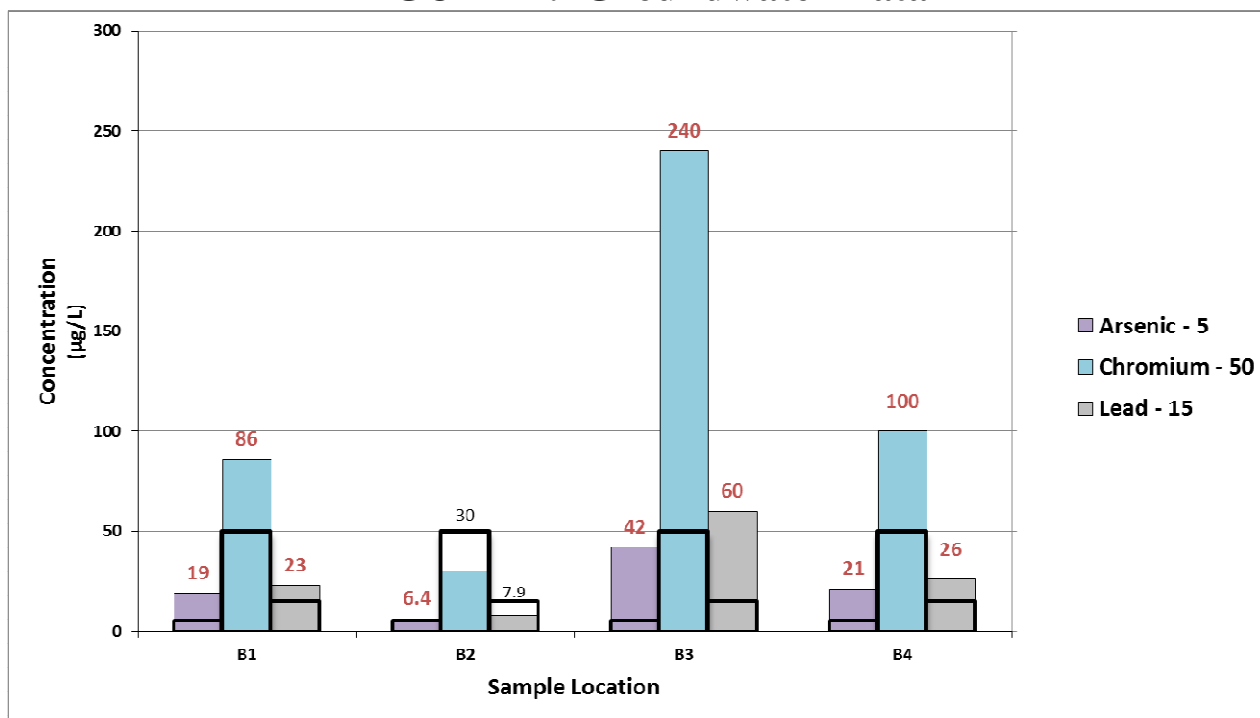
**TABLE 4: Groundwater Sample Results**

	Groundwater Sample Name & Depth (bgs)	Analytical Results (µg/l)	MTCA Method A Cleanup Level (µg/l)
<b>B1</b>	B1-GWS1 @ 13.5' (approx.)	<b>Arsenic = 19</b>	Arsenic = 5
		<b>Chromium = 86</b>	Chromium (total) = 50
		<b>Lead = 23</b>	Lead = 15
		Mercury = 0.98	Mercury = 2.0
<b>B2</b>	B2-GWS1 @ 13.5' (approx.)	<b>Arsenic = 6.4</b>	Arsenic = 5
		<b>Chromium = 30</b>	Chromium (total) = 50
		Lead = 7.9	Lead = 15
		Mercury = 0.21	Mercury = 2.0
<b>B3</b>	B3-GWS1 @ 18.5' (approx.)	<b>Arsenic = 42</b>	Arsenic = 5
		<b>Chromium = 240</b>	Chromium (total) = 50
		<b>Lead = 60</b>	Lead = 15
		Mercury = 1.3	Mercury = 2.0
<b>B4</b>	B4-GWS1 @ 18.5' (approx.)	<b>Arsenic = 21</b>	Arsenic = 5
		<b>Chromium = 100</b>	Chromium (total) = 50
		<b>Lead = 26</b>	Lead = 15
		Mercury = 0.23	Mercury = 2.0

FIGURE 4 displays the As, Cr, & Pb concentrations in groundwater in reference to the ground boring locations and the relative distance of each from the septic tank.



**FIGURE 4: Groundwater Data**



As a result of this SHA, this site is scored and ranked due to the documented presence of arsenic, chromium, and lead in on-site groundwater exceeding their respective MTCA Method A cleanup levels. The extent of contamination was not determined as part of this SHA. However, further site characterization may be necessary.

**SPECIAL CONSIDERATIONS (include limitations in site file data or data which cannot be accommodated in the model, but which are important in evaluating the risk associated with the site, or any other factor(s) over-riding a decision of no further action for the site):**

Due to the contamination documented on-site being primarily subsurface, the surface water and air routes are not applicable for WARM scoring for this site. Thus, only the groundwater route will be scored.

**ROUTE SCORES:**

Surface Water/Human Health: NS  
 Air/Human Health: NS  
 Groundwater/Human Health: 74.8

Surface Water/Environmental.: NS  
 Air/Environmental: NS

**OVERALL RANK: 2**

WORKSHEET 2  
Route Documentation

1. **SURFACE WATER ROUTE** – *Not Scored*

- a. List those substances to be considered for scoring: Source: \_\_
  
- b. Explain basis for choice of substance(s) to be used in scoring.
  
- c. List those management units to be considered for scoring: Source: \_\_
  
- d. Explain basis for choice of unit to be used in scoring:

2. **AIR ROUTE** – *Not Scored*

- a. List those substances to be considered for scoring: Source: \_\_
  
- b. Explain basis for choice of substance(s) to be used in scoring:
  
- c. List those management units to be considered for scoring: Source: \_\_
  
- d. Explain basis for choice of unit to be used in scoring:

3. **GROUNDWATER ROUTE**

- a. List those substances to be considered for scoring: Source: 1, 2, 8  
Lead, chromium (total), and arsenic.
  
- b. Explain basis for choice of substance(s) to be used in scoring:  
These substances were detected in subsurface soil and groundwater samples at concentrations exceeding their respective MTCA Method cleanup levels.
  
- c. List those management units to be considered for scoring: Source: 1, 2, 8  
Subsurface soil and groundwater.
  
- d. Explain basis for choice of unit to be used in scoring:  
The contaminating substances were detected in subsurface soil and groundwater at concentrations exceeding their respective MTCA Method A cleanup levels.

WORKSHEET 6  
Groundwater Route

**1.0 SUBSTANCE CHARACTERISTICS**

<b>1.1 Human Toxicity</b>										
Substance		Drinking Water Standard (µg/L)	Value	Acute Toxicity (mg/ kg-bw)	Value	Chronic Toxicity (mg/kg/day)	Value	Carcinogenicity		Value
								WOE	PF*	
1	Lead	5	8	-	ND	-	ND	B2	-	ND
2	Chromium	100	6	-	ND	-	3	A	-	ND
3	Arsenic	50	6	763 (rat)	5	0.001	5	A	1.75	7

\* Potency Factor

Source: 1, 2, 4, 8

**Highest Value: 8**  
(Max = 10)

**Plus 2 Bonus Points? 2**

**Final Toxicity Value: 10**  
(Max = 12)

<b>1.2 Mobility (use numbers to refer to above listed substances)</b>	
Cations/Anions	OR Solubility (mg/L)
1= 2 + 1 (metals present in solution) = 3	1=
2= 1 + 1 (metals present in solution) = 2	2=
3= 3 + 1 (metals present in solution) = 4	3=

Source: 1, 2, 4, 8

**Value: 3**  
(Max = 3)

<b>1.3 Substance Quantity:</b>	
Explain basis: Quantity is calculated based on the once filled volume of the septic tank @ 501-1,000 gallons.	Source: <u>1, 2, 4</u> <b>Value: <u>3</u></b> (Max=10)

## 2.0 MIGRATION POTENTIAL

		Source	Value
2.1	<b>Containment (explain basis):</b> Spill, discharge, and contaminated soil (i.e., drain field) = 10	1, 2, 5	<u>10</u> (Max = 10)
2.2	<b>Net precipitation:</b> 28.14" – 5.7" = 22.44"	5	<u>3</u> (Max = 5)
2.3	<b>Subsurface hydraulic conductivity:</b> sandy clayey loam	2, 4	<u>4</u> (Max = 4)
2.4	<b>Vertical depth to groundwater:</b> confirmed release to groundwater	1, 4, 8	<u>8</u> (Max = 8)

## 3.0 TARGETS

		Source	Value
3.1	<b>Groundwater usage:</b> public supply, but alternate sources available with minimum hookup requirements	4, 6	<u>4</u> (Max = 10)
3.2	<b>Distance to nearest drinking water well:</b> >600 – 1,300	4, 6	<u>4</u> (Max = 5)
3.3	<b>Population served within 2 miles:</b> $\sqrt{\text{pop.}} = >10,000$	4, 6	<u>100</u> (Max = 100)
3.4	<b>Area irrigated by (groundwater) wells within 2 miles:</b> 1,544 (0.75)* $\sqrt{\# \text{ acres}} = 29.5$	7	<u>30</u> (Max = 50)

## 4.0 RELEASE

		Source	Value
	<b>Explain basis for scoring a release to groundwater:</b> Confirmed groundwater contamination by laboratory analysis, only.	1, 8	<u>5</u> (Max = 5)

## SOURCES USED IN SCORING

1. Initial Investigation by Clark County Public Health, May 14, 2010.
2. Soil Survey of Clark County, Washington, November 1972.
3. Washington State Department of Ecology, Toxicology Database for Use in Washington Ranking Method Scoring, January 1992.
4. Washington State Department of Ecology, WARM Scoring Manual, April 1992.
5. Washington Climate – Net Rainfall Table.
6. Aerial Photo, GIS Clark County MapsOnline.
7. Washington State Department of Ecology, Water Rights Application System (WRATS) printout for two-mile radius of site.
8. Analytical Report, by TestAmerica Laboratories, Inc., February 2013.
9. Clean-Out and Remediation Required for a septic tank at 2616 NE 112<sup>th</sup> Avenue, Vancouver, WA 98684, by Department of Ecology, March 26, 2010.

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Portland  
9405 SW Nimbus Ave.  
Beaverton, OR 97008  
Tel: (503)906-9200

TestAmerica Job ID: 250-10041-1

Client Project/Site: Today's Family Dentistry  
Revision: 1

For:

Clark County Environmental Health  
PO BOX 9825  
Vancouver, Washington 98666

Attn: Bryan DeDoncker



Authorized for release by:  
2/22/2013 3:38:58 PM

Erica Fot  
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### LINKS

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*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Sample Summary

Client: Clark County Environmental Health  
Project/Site: Today's Family Dentistry

TestAmerica Job ID: 250-10041-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
250-10041-1	B1-SS1	Solid	02/14/13 08:45	02/15/13 10:56
250-10041-2	B1-SS2	Solid	02/14/13 08:55	02/15/13 10:56
250-10041-3	B2-SS1	Solid	02/14/13 09:30	02/15/13 10:56
250-10041-4	B2-SS2	Solid	02/14/13 09:35	02/15/13 10:56
250-10041-5	B2-SS3	Solid	02/14/13 09:40	02/15/13 10:56
250-10041-6	B3-SS1	Solid	02/14/13 10:00	02/15/13 10:56
250-10041-7	B3-SS2	Solid	02/14/13 10:05	02/15/13 10:56
250-10041-8	B3-SS3	Solid	02/14/13 10:10	02/15/13 10:56
250-10041-9	B4-SS1	Solid	02/14/13 10:50	02/15/13 10:56
250-10041-10	B4-SS2	Solid	02/14/13 11:00	02/15/13 10:56
250-10041-11	B4-SS3	Solid	02/14/13 11:05	02/15/13 10:56
250-10041-12	B1-GWSI	Water	02/14/13 09:15	02/15/13 10:56
250-10041-13	B2-GWSI	Water	02/14/13 09:50	02/15/13 10:56
250-10041-14	B3-GWSI	Water	02/14/13 10:25	02/15/13 10:56
250-10041-15	B4-GWSI	Water	02/14/13 11:15	02/15/13 10:56

# Case Narrative

Client: Clark County Environmental Health  
Project/Site: Today's Family Dentistry

TestAmerica Job ID: 250-10041-1

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**Job ID: 250-10041-1**

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**Laboratory: TestAmerica Portland**

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**Narrative**

**Job Narrative  
250-10041-1**

**Comments**

No additional comments.

**Receipt**

The samples were received on 2/15/2013 10:56 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 10.7° C, 11.3° C and 11.8° C.

Except:

The following sample(s) was received at the laboratory outside the required temperature criteria: B1-GWSI (250-10041-12), B1-SS1 (250-10041-1), B1-SS2 (250-10041-2), B2-GWSI (250-10041-13), B2-SS1 (250-10041-3), B2-SS2 (250-10041-4), B2-SS3 (250-10041-5), B3-GWSI (250-10041-14), B3-SS1 (250-10041-6), B3-SS2 (250-10041-7), B3-SS3 (250-10041-8), B4-GWSI (250-10041-15), B4-SS1 (250-10041-9), B4-SS2 (250-10041-10), B4-SS3 (250-10041-11). The client was contacted regarding this issue, and the laboratory was instructed to proceed with analysis.

**Metals**

Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 14289 were outside control limits with respect to Sb. The associated laboratory control sample (LCS) recovery met acceptance criteria. (250-10040-1 MS)

Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 14290 were outside control limits with respect to Sb. The associated laboratory control sample (LCS) recovery met acceptance criteria. (250-10041-6 MS), (250-10041-6 MSD)

No other analytical or quality issues were noted.





## Definitions/Glossary

Client: Clark County Environmental Health  
Project/Site: Today's Family Dentistry

TestAmerica Job ID: 250-10041-1

### Qualifiers

#### Metals

Qualifier	Qualifier Description
F	MS or MSD exceeds the control limits

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Client Sample Results

Client: Clark County Environmental Health  
 Project/Site: Today's Family Dentistry

TestAmerica Job ID: 250-10041-1

## Method: 200.8 - Metals (ICP/MS)

**Client Sample ID: B1-GWSI**  
**Date Collected: 02/14/13 09:15**  
**Date Received: 02/15/13 10:56**

**Lab Sample ID: 250-10041-12**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.0		ug/L		02/18/13 08:27	02/18/13 17:28	1
<b>Arsenic</b>	<b>19</b>		1.0		ug/L		02/18/13 08:27	02/18/13 17:28	1
<b>Beryllium</b>	<b>2.2</b>		2.0		ug/L		02/18/13 08:27	02/18/13 17:28	1
Cadmium	ND		1.0		ug/L		02/18/13 08:27	02/18/13 17:28	1
<b>Chromium</b>	<b>86</b>		2.0		ug/L		02/18/13 08:27	02/18/13 17:28	1
<b>Copper</b>	<b>120</b>		2.0		ug/L		02/18/13 08:27	02/18/13 17:28	1
<b>Lead</b>	<b>23</b>		1.0		ug/L		02/18/13 08:27	02/18/13 17:28	1
<b>Nickel</b>	<b>52</b>		2.0		ug/L		02/18/13 08:27	02/18/13 17:28	1
Selenium	ND		1.0		ug/L		02/18/13 08:27	02/18/13 17:28	1
<b>Silver</b>	<b>5.5</b>		1.0		ug/L		02/18/13 08:27	02/18/13 17:28	1
Thallium	ND		1.0		ug/L		02/18/13 08:27	02/18/13 17:28	1
<b>Zinc</b>	<b>190</b>		10		ug/L		02/18/13 08:27	02/18/13 17:28	1

**Client Sample ID: B2-GWSI**  
**Date Collected: 02/14/13 09:50**  
**Date Received: 02/15/13 10:56**

**Lab Sample ID: 250-10041-13**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.0		ug/L		02/18/13 08:27	02/18/13 17:31	1
<b>Arsenic</b>	<b>6.4</b>		1.0		ug/L		02/18/13 08:27	02/18/13 17:31	1
Beryllium	ND		2.0		ug/L		02/18/13 08:27	02/18/13 17:31	1
Cadmium	ND		1.0		ug/L		02/18/13 08:27	02/18/13 17:31	1
<b>Chromium</b>	<b>30</b>		2.0		ug/L		02/18/13 08:27	02/18/13 17:31	1
<b>Copper</b>	<b>48</b>		2.0		ug/L		02/18/13 08:27	02/18/13 17:31	1
<b>Lead</b>	<b>7.9</b>		1.0		ug/L		02/18/13 08:27	02/18/13 17:31	1
<b>Nickel</b>	<b>25</b>		2.0		ug/L		02/18/13 08:27	02/18/13 17:31	1
Selenium	ND		1.0		ug/L		02/18/13 08:27	02/18/13 17:31	1
<b>Silver</b>	<b>1.8</b>		1.0		ug/L		02/18/13 08:27	02/18/13 17:31	1
Thallium	ND		1.0		ug/L		02/18/13 08:27	02/18/13 17:31	1
<b>Zinc</b>	<b>83</b>		10		ug/L		02/18/13 08:27	02/18/13 17:31	1

**Client Sample ID: B3-GWSI**  
**Date Collected: 02/14/13 10:25**  
**Date Received: 02/15/13 10:56**

**Lab Sample ID: 250-10041-14**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.0		ug/L		02/18/13 08:27	02/18/13 17:34	1
<b>Arsenic</b>	<b>42</b>		1.0		ug/L		02/18/13 08:27	02/18/13 17:34	1
Beryllium	ND		10		ug/L		02/18/13 08:27	02/18/13 20:05	5
<b>Cadmium</b>	<b>1.0</b>		1.0		ug/L		02/18/13 08:27	02/18/13 17:34	1
<b>Chromium</b>	<b>240</b>		2.0		ug/L		02/18/13 08:27	02/18/13 17:34	1
<b>Copper</b>	<b>330</b>		2.0		ug/L		02/18/13 08:27	02/18/13 17:34	1
<b>Lead</b>	<b>60</b>		1.0		ug/L		02/18/13 08:27	02/18/13 17:34	1
<b>Nickel</b>	<b>180</b>		2.0		ug/L		02/18/13 08:27	02/18/13 17:34	1
<b>Selenium</b>	<b>2.2</b>		1.0		ug/L		02/18/13 08:27	02/18/13 17:34	1
<b>Silver</b>	<b>1.8</b>		1.0		ug/L		02/18/13 08:27	02/18/13 17:34	1
<b>Thallium</b>	<b>1.4</b>		1.0		ug/L		02/18/13 08:27	02/18/13 17:34	1
<b>Zinc</b>	<b>530</b>		10		ug/L		02/18/13 08:27	02/18/13 17:34	1

# Client Sample Results

Client: Clark County Environmental Health  
Project/Site: Today's Family Dentistry

TestAmerica Job ID: 250-10041-1

## Method: 200.8 - Metals (ICP/MS)

Client Sample ID: B4-GWSI  
Date Collected: 02/14/13 11:15  
Date Received: 02/15/13 10:56

Lab Sample ID: 250-10041-15  
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.0		ug/L		02/18/13 08:27	02/18/13 17:37	1
<b>Arsenic</b>	<b>21</b>		1.0		ug/L		02/18/13 08:27	02/18/13 17:37	1
<b>Beryllium</b>	<b>2.7</b>		2.0		ug/L		02/18/13 08:27	02/18/13 17:37	1
Cadmium	ND		1.0		ug/L		02/18/13 08:27	02/18/13 17:37	1
<b>Chromium</b>	<b>100</b>		2.0		ug/L		02/18/13 08:27	02/18/13 17:37	1
<b>Copper</b>	<b>160</b>		2.0		ug/L		02/18/13 08:27	02/18/13 17:37	1
<b>Lead</b>	<b>26</b>		1.0		ug/L		02/18/13 08:27	02/18/13 17:37	1
<b>Nickel</b>	<b>80</b>		2.0		ug/L		02/18/13 08:27	02/18/13 17:37	1
Selenium	ND		1.0		ug/L		02/18/13 08:27	02/18/13 17:37	1
Silver	ND		1.0		ug/L		02/18/13 08:27	02/18/13 17:37	1
Thallium	ND		1.0		ug/L		02/18/13 08:27	02/18/13 17:37	1
<b>Zinc</b>	<b>240</b>		10		ug/L		02/18/13 08:27	02/18/13 17:37	1

# Client Sample Results

Client: Clark County Environmental Health  
 Project/Site: Today's Family Dentistry

TestAmerica Job ID: 250-10041-1

## Method: 6020 - Metals (ICP/MS)

**Client Sample ID: B1-SS1**

**Date Collected: 02/14/13 08:45**

**Date Received: 02/15/13 10:56**

**Lab Sample ID: 250-10041-1**

**Matrix: Solid**

**Percent Solids: 85.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.1		mg/Kg	☼	02/16/13 14:17	02/17/13 16:10	20
Antimony	ND		1.1		mg/Kg	☼	02/16/13 14:17	02/17/13 16:10	20
Beryllium	ND		2.3		mg/Kg	☼	02/16/13 14:17	02/17/13 16:10	20
Thallium	ND		1.1		mg/Kg	☼	02/16/13 14:17	02/17/13 16:10	20
<b>Nickel</b>	<b>18</b>		2.3		mg/Kg	☼	02/16/13 14:17	02/17/13 16:10	20
<b>Silver</b>	<b>2.1</b>		1.1		mg/Kg	☼	02/16/13 14:17	02/17/13 16:10	20
<b>Arsenic</b>	<b>5.9</b>		1.1		mg/Kg	☼	02/16/13 14:17	02/17/13 16:10	20
<b>Copper</b>	<b>37</b>		2.3		mg/Kg	☼	02/16/13 14:17	02/17/13 16:10	20
<b>Lead</b>	<b>5.2</b>		1.1		mg/Kg	☼	02/16/13 14:17	02/17/13 16:10	20
<b>Zinc</b>	<b>74</b>		11		mg/Kg	☼	02/16/13 14:17	02/17/13 16:10	20
Selenium	ND		1.1		mg/Kg	☼	02/16/13 14:17	02/17/13 16:10	20
<b>Chromium</b>	<b>18</b>		2.3		mg/Kg	☼	02/16/13 14:17	02/17/13 16:10	20

**Client Sample ID: B1-SS2**

**Date Collected: 02/14/13 08:55**

**Date Received: 02/15/13 10:56**

**Lab Sample ID: 250-10041-2**

**Matrix: Solid**

**Percent Solids: 84.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.1		mg/Kg	☼	02/16/13 14:17	02/17/13 16:13	20
Antimony	ND		1.1		mg/Kg	☼	02/16/13 14:17	02/17/13 16:13	20
Beryllium	ND		2.3		mg/Kg	☼	02/16/13 14:17	02/17/13 16:13	20
Thallium	ND		1.1		mg/Kg	☼	02/16/13 14:17	02/17/13 16:13	20
<b>Nickel</b>	<b>15</b>		2.3		mg/Kg	☼	02/16/13 14:17	02/17/13 16:13	20
Silver	ND		1.1		mg/Kg	☼	02/16/13 14:17	02/17/13 16:13	20
<b>Arsenic</b>	<b>2.9</b>		1.1		mg/Kg	☼	02/16/13 14:17	02/17/13 16:13	20
<b>Copper</b>	<b>35</b>		2.3		mg/Kg	☼	02/16/13 14:17	02/17/13 16:13	20
<b>Lead</b>	<b>4.7</b>		1.1		mg/Kg	☼	02/16/13 14:17	02/17/13 16:13	20
<b>Zinc</b>	<b>73</b>		11		mg/Kg	☼	02/16/13 14:17	02/17/13 16:13	20
Selenium	ND		1.1		mg/Kg	☼	02/16/13 14:17	02/17/13 16:13	20
<b>Chromium</b>	<b>17</b>		2.3		mg/Kg	☼	02/16/13 14:17	02/17/13 16:13	20

**Client Sample ID: B2-SS1**

**Date Collected: 02/14/13 09:30**

**Date Received: 02/15/13 10:56**

**Lab Sample ID: 250-10041-3**

**Matrix: Solid**

**Percent Solids: 82.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.2		mg/Kg	☼	02/16/13 14:17	02/17/13 16:24	20
Antimony	ND		1.2		mg/Kg	☼	02/16/13 14:17	02/17/13 16:24	20
Beryllium	ND		2.4		mg/Kg	☼	02/16/13 14:17	02/17/13 16:24	20
Thallium	ND		1.2		mg/Kg	☼	02/16/13 14:17	02/17/13 16:24	20
<b>Nickel</b>	<b>27</b>		2.4		mg/Kg	☼	02/16/13 14:17	02/17/13 16:24	20
<b>Silver</b>	<b>12</b>		1.2		mg/Kg	☼	02/16/13 14:17	02/17/13 16:24	20
<b>Arsenic</b>	<b>3.5</b>		1.2		mg/Kg	☼	02/16/13 14:17	02/17/13 16:24	20
<b>Copper</b>	<b>65</b>		2.4		mg/Kg	☼	02/16/13 14:17	02/17/13 16:24	20
<b>Lead</b>	<b>8.5</b>		1.2		mg/Kg	☼	02/16/13 14:17	02/17/13 16:24	20
<b>Zinc</b>	<b>110</b>		12		mg/Kg	☼	02/16/13 14:17	02/17/13 16:24	20
Selenium	ND		1.2		mg/Kg	☼	02/16/13 14:17	02/17/13 16:24	20
<b>Chromium</b>	<b>28</b>		2.4		mg/Kg	☼	02/16/13 14:17	02/17/13 16:24	20

TestAmerica Portland

# Client Sample Results

Client: Clark County Environmental Health  
 Project/Site: Today's Family Dentistry

TestAmerica Job ID: 250-10041-1

## Method: 6020 - Metals (ICP/MS)

**Client Sample ID: B2-SS2**  
**Date Collected: 02/14/13 09:35**  
**Date Received: 02/15/13 10:56**

**Lab Sample ID: 250-10041-4**  
**Matrix: Solid**  
**Percent Solids: 81.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.2		mg/Kg	☼	02/16/13 14:17	02/17/13 16:27	20
Antimony	ND		1.2		mg/Kg	☼	02/16/13 14:17	02/17/13 16:27	20
Beryllium	ND		2.4		mg/Kg	☼	02/16/13 14:17	02/17/13 16:27	20
Thallium	ND		1.2		mg/Kg	☼	02/16/13 14:17	02/17/13 16:27	20
<b>Nickel</b>	<b>17</b>		2.4		mg/Kg	☼	02/16/13 14:17	02/17/13 16:27	20
<b>Silver</b>	<b>2.2</b>		1.2		mg/Kg	☼	02/16/13 14:17	02/17/13 16:27	20
<b>Arsenic</b>	<b>2.6</b>		1.2		mg/Kg	☼	02/16/13 14:17	02/17/13 16:27	20
<b>Copper</b>	<b>31</b>		2.4		mg/Kg	☼	02/16/13 14:17	02/17/13 16:27	20
<b>Lead</b>	<b>5.3</b>		1.2		mg/Kg	☼	02/16/13 14:17	02/17/13 16:27	20
<b>Zinc</b>	<b>88</b>		12		mg/Kg	☼	02/16/13 14:17	02/17/13 16:27	20
Selenium	ND		1.2		mg/Kg	☼	02/16/13 14:17	02/17/13 16:27	20
<b>Chromium</b>	<b>17</b>		2.4		mg/Kg	☼	02/16/13 14:17	02/17/13 16:27	20

**Client Sample ID: B2-SS3**  
**Date Collected: 02/14/13 09:40**  
**Date Received: 02/15/13 10:56**

**Lab Sample ID: 250-10041-5**  
**Matrix: Solid**  
**Percent Solids: 84.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.1		mg/Kg	☼	02/16/13 14:17	02/17/13 16:31	20
Antimony	ND		1.1		mg/Kg	☼	02/16/13 14:17	02/17/13 16:31	20
Beryllium	ND		2.3		mg/Kg	☼	02/16/13 14:17	02/17/13 16:31	20
Thallium	ND		1.1		mg/Kg	☼	02/16/13 14:17	02/17/13 16:31	20
<b>Nickel</b>	<b>17</b>		2.3		mg/Kg	☼	02/16/13 14:17	02/17/13 16:31	20
Silver	ND		1.1		mg/Kg	☼	02/16/13 14:17	02/17/13 16:31	20
<b>Arsenic</b>	<b>2.8</b>		1.1		mg/Kg	☼	02/16/13 14:17	02/17/13 16:31	20
<b>Copper</b>	<b>27</b>		2.3		mg/Kg	☼	02/16/13 14:17	02/17/13 16:31	20
<b>Lead</b>	<b>4.1</b>		1.1		mg/Kg	☼	02/16/13 14:17	02/17/13 16:31	20
<b>Zinc</b>	<b>67</b>		11		mg/Kg	☼	02/16/13 14:17	02/17/13 16:31	20
Selenium	ND		1.1		mg/Kg	☼	02/16/13 14:17	02/17/13 16:31	20
<b>Chromium</b>	<b>16</b>		2.3		mg/Kg	☼	02/16/13 14:17	02/17/13 16:31	20

**Client Sample ID: B3-SS1**  
**Date Collected: 02/14/13 10:00**  
**Date Received: 02/15/13 10:56**

**Lab Sample ID: 250-10041-6**  
**Matrix: Solid**  
**Percent Solids: 84.3**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.2		mg/Kg	☼	02/16/13 14:21	02/17/13 16:51	20
Antimony	ND		1.2		mg/Kg	☼	02/16/13 14:21	02/17/13 16:51	20
Beryllium	ND		2.4		mg/Kg	☼	02/16/13 14:21	02/17/13 16:51	20
Thallium	ND		1.2		mg/Kg	☼	02/16/13 14:21	02/17/13 16:51	20
<b>Nickel</b>	<b>25</b>		2.4		mg/Kg	☼	02/16/13 14:21	02/17/13 16:51	20
Silver	ND		1.2		mg/Kg	☼	02/16/13 14:21	02/17/13 16:51	20
<b>Arsenic</b>	<b>2.8</b>		1.2		mg/Kg	☼	02/16/13 14:21	02/17/13 16:51	20
<b>Copper</b>	<b>37</b>		2.4		mg/Kg	☼	02/16/13 14:21	02/17/13 16:51	20
<b>Lead</b>	<b>5.5</b>		1.2		mg/Kg	☼	02/16/13 14:21	02/17/13 16:51	20
<b>Zinc</b>	<b>84</b>		12		mg/Kg	☼	02/16/13 14:21	02/17/13 16:51	20
Selenium	ND		1.2		mg/Kg	☼	02/16/13 14:21	02/17/13 16:51	20
<b>Chromium</b>	<b>24</b>		2.4		mg/Kg	☼	02/16/13 14:21	02/17/13 16:51	20

TestAmerica Portland

# Client Sample Results

Client: Clark County Environmental Health  
Project/Site: Today's Family Dentistry

TestAmerica Job ID: 250-10041-1

## Method: 6020 - Metals (ICP/MS)

**Client Sample ID: B3-SS2**  
**Date Collected: 02/14/13 10:05**  
**Date Received: 02/15/13 10:56**

**Lab Sample ID: 250-10041-7**  
**Matrix: Solid**  
**Percent Solids: 70.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.4		mg/Kg	☼	02/16/13 14:21	02/17/13 17:01	20
Antimony	ND		1.4		mg/Kg	☼	02/16/13 14:21	02/17/13 17:01	20
Beryllium	ND		2.8		mg/Kg	☼	02/16/13 14:21	02/17/13 17:01	20
Thallium	ND		1.4		mg/Kg	☼	02/16/13 14:21	02/17/13 17:01	20
<b>Nickel</b>	<b>27</b>		2.8		mg/Kg	☼	02/16/13 14:21	02/17/13 17:01	20
Silver	ND		1.4		mg/Kg	☼	02/16/13 14:21	02/17/13 17:01	20
<b>Arsenic</b>	<b>4.1</b>		1.4		mg/Kg	☼	02/16/13 14:21	02/17/13 17:01	20
<b>Copper</b>	<b>45</b>		2.8		mg/Kg	☼	02/16/13 14:21	02/17/13 17:01	20
<b>Lead</b>	<b>6.2</b>		1.4		mg/Kg	☼	02/16/13 14:21	02/17/13 17:01	20
<b>Zinc</b>	<b>84</b>		14		mg/Kg	☼	02/16/13 14:21	02/17/13 17:01	20
Selenium	ND		1.4		mg/Kg	☼	02/16/13 14:21	02/17/13 17:01	20
<b>Chromium</b>	<b>31</b>		2.8		mg/Kg	☼	02/16/13 14:21	02/17/13 17:01	20

**Client Sample ID: B3-SS3**  
**Date Collected: 02/14/13 10:10**  
**Date Received: 02/15/13 10:56**

**Lab Sample ID: 250-10041-8**  
**Matrix: Solid**  
**Percent Solids: 80.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.2		mg/Kg	☼	02/16/13 14:21	02/17/13 17:04	20
Antimony	ND		1.2		mg/Kg	☼	02/16/13 14:21	02/17/13 17:04	20
Beryllium	ND		2.4		mg/Kg	☼	02/16/13 14:21	02/17/13 17:04	20
Thallium	ND		1.2		mg/Kg	☼	02/16/13 14:21	02/17/13 17:04	20
<b>Nickel</b>	<b>19</b>		2.4		mg/Kg	☼	02/16/13 14:21	02/17/13 17:04	20
Silver	ND		1.2		mg/Kg	☼	02/16/13 14:21	02/17/13 17:04	20
<b>Arsenic</b>	<b>5.0</b>		1.2		mg/Kg	☼	02/16/13 14:21	02/17/13 17:04	20
<b>Copper</b>	<b>40</b>		2.4		mg/Kg	☼	02/16/13 14:21	02/17/13 17:04	20
<b>Lead</b>	<b>5.3</b>		1.2		mg/Kg	☼	02/16/13 14:21	02/17/13 17:04	20
<b>Zinc</b>	<b>78</b>		12		mg/Kg	☼	02/16/13 14:21	02/17/13 17:04	20
Selenium	ND		1.2		mg/Kg	☼	02/16/13 14:21	02/17/13 17:04	20
<b>Chromium</b>	<b>23</b>		2.4		mg/Kg	☼	02/16/13 14:21	02/17/13 17:04	20

**Client Sample ID: B4-SS1**  
**Date Collected: 02/14/13 10:50**  
**Date Received: 02/15/13 10:56**

**Lab Sample ID: 250-10041-9**  
**Matrix: Solid**  
**Percent Solids: 84.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.1		mg/Kg	☼	02/16/13 14:21	02/17/13 17:08	20
Antimony	ND		1.1		mg/Kg	☼	02/16/13 14:21	02/17/13 17:08	20
Beryllium	ND		2.3		mg/Kg	☼	02/16/13 14:21	02/17/13 17:08	20
Thallium	ND		1.1		mg/Kg	☼	02/16/13 14:21	02/17/13 17:08	20
<b>Nickel</b>	<b>17</b>		2.3		mg/Kg	☼	02/16/13 14:21	02/17/13 17:08	20
Silver	ND		1.1		mg/Kg	☼	02/16/13 14:21	02/17/13 17:08	20
<b>Arsenic</b>	<b>1.9</b>		1.1		mg/Kg	☼	02/16/13 14:21	02/17/13 17:08	20
<b>Copper</b>	<b>30</b>		2.3		mg/Kg	☼	02/16/13 14:21	02/17/13 17:08	20
<b>Lead</b>	<b>4.1</b>		1.1		mg/Kg	☼	02/16/13 14:21	02/17/13 17:08	20
<b>Zinc</b>	<b>62</b>		11		mg/Kg	☼	02/16/13 14:21	02/17/13 17:08	20
Selenium	ND		1.1		mg/Kg	☼	02/16/13 14:21	02/17/13 17:08	20
<b>Chromium</b>	<b>18</b>		2.3		mg/Kg	☼	02/16/13 14:21	02/17/13 17:08	20

TestAmerica Portland

# Client Sample Results

Client: Clark County Environmental Health  
 Project/Site: Today's Family Dentistry

TestAmerica Job ID: 250-10041-1

## Method: 6020 - Metals (ICP/MS)

**Client Sample ID: B4-SS2**  
**Date Collected: 02/14/13 11:00**  
**Date Received: 02/15/13 10:56**

**Lab Sample ID: 250-10041-10**  
**Matrix: Solid**  
**Percent Solids: 77.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.2		mg/Kg	☼	02/16/13 14:21	02/17/13 17:11	20
Antimony	ND		1.2		mg/Kg	☼	02/16/13 14:21	02/17/13 17:11	20
Beryllium	ND		2.5		mg/Kg	☼	02/16/13 14:21	02/17/13 17:11	20
Thallium	ND		1.2		mg/Kg	☼	02/16/13 14:21	02/17/13 17:11	20
<b>Nickel</b>	<b>13</b>		2.5		mg/Kg	☼	02/16/13 14:21	02/17/13 17:11	20
Silver	ND		1.2		mg/Kg	☼	02/16/13 14:21	02/17/13 17:11	20
<b>Arsenic</b>	<b>2.2</b>		1.2		mg/Kg	☼	02/16/13 14:21	02/17/13 17:11	20
<b>Copper</b>	<b>28</b>		2.5		mg/Kg	☼	02/16/13 14:21	02/17/13 17:11	20
<b>Lead</b>	<b>5.0</b>		1.2		mg/Kg	☼	02/16/13 14:21	02/17/13 17:11	20
<b>Zinc</b>	<b>86</b>		12		mg/Kg	☼	02/16/13 14:21	02/17/13 17:11	20
Selenium	ND		1.2		mg/Kg	☼	02/16/13 14:21	02/17/13 17:11	20
<b>Chromium</b>	<b>14</b>		2.5		mg/Kg	☼	02/16/13 14:21	02/17/13 17:11	20

**Client Sample ID: B4-SS3**  
**Date Collected: 02/14/13 11:05**  
**Date Received: 02/15/13 10:56**

**Lab Sample ID: 250-10041-11**  
**Matrix: Solid**  
**Percent Solids: 81.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.2		mg/Kg	☼	02/16/13 14:21	02/17/13 17:21	20
Antimony	ND		1.2		mg/Kg	☼	02/16/13 14:21	02/17/13 17:21	20
Beryllium	ND		2.4		mg/Kg	☼	02/16/13 14:21	02/17/13 17:21	20
Thallium	ND		1.2		mg/Kg	☼	02/16/13 14:21	02/17/13 17:21	20
<b>Nickel</b>	<b>20</b>		2.4		mg/Kg	☼	02/16/13 14:21	02/17/13 17:21	20
Silver	ND		1.2		mg/Kg	☼	02/16/13 14:21	02/17/13 17:21	20
<b>Arsenic</b>	<b>3.6</b>		1.2		mg/Kg	☼	02/16/13 14:21	02/17/13 17:21	20
<b>Copper</b>	<b>34</b>		2.4		mg/Kg	☼	02/16/13 14:21	02/17/13 17:21	20
<b>Lead</b>	<b>5.2</b>		1.2		mg/Kg	☼	02/16/13 14:21	02/17/13 17:21	20
<b>Zinc</b>	<b>81</b>		12		mg/Kg	☼	02/16/13 14:21	02/17/13 17:21	20
Selenium	ND		1.2		mg/Kg	☼	02/16/13 14:21	02/17/13 17:21	20
<b>Chromium</b>	<b>20</b>		2.4		mg/Kg	☼	02/16/13 14:21	02/17/13 17:21	20

# Client Sample Results

Client: Clark County Environmental Health  
 Project/Site: Today's Family Dentistry

TestAmerica Job ID: 250-10041-1

## Method: 7470A - Mercury (CVAA)

**Client Sample ID: B1-GWSI**  
**Date Collected: 02/14/13 09:15**  
**Date Received: 02/15/13 10:56**

**Lab Sample ID: 250-10041-12**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.98		0.20		ug/L		02/17/13 16:30	02/18/13 17:25	1

**Client Sample ID: B2-GWSI**  
**Date Collected: 02/14/13 09:50**  
**Date Received: 02/15/13 10:56**

**Lab Sample ID: 250-10041-13**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.21		0.20		ug/L		02/17/13 16:30	02/18/13 17:28	1

**Client Sample ID: B3-GWSI**  
**Date Collected: 02/14/13 10:25**  
**Date Received: 02/15/13 10:56**

**Lab Sample ID: 250-10041-14**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.3		0.20		ug/L		02/17/13 16:30	02/18/13 17:30	1

**Client Sample ID: B4-GWSI**  
**Date Collected: 02/14/13 11:15**  
**Date Received: 02/15/13 10:56**

**Lab Sample ID: 250-10041-15**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.23		0.20		ug/L		02/17/13 16:30	02/18/13 17:33	1



# Client Sample Results

Client: Clark County Environmental Health  
 Project/Site: Today's Family Dentistry

TestAmerica Job ID: 250-10041-1

## Method: 7471A - Mercury (CVAA)

**Client Sample ID: B1-SS1**  
**Date Collected: 02/14/13 08:45**  
**Date Received: 02/15/13 10:56**

**Lab Sample ID: 250-10041-1**  
**Matrix: Solid**  
**Percent Solids: 85.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.11		mg/Kg	☼	02/20/13 16:58	02/21/13 01:06	1

**Client Sample ID: B1-SS2**  
**Date Collected: 02/14/13 08:55**  
**Date Received: 02/15/13 10:56**

**Lab Sample ID: 250-10041-2**  
**Matrix: Solid**  
**Percent Solids: 84.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.096		mg/Kg	☼	02/20/13 16:58	02/21/13 01:08	1

**Client Sample ID: B2-SS1**  
**Date Collected: 02/14/13 09:30**  
**Date Received: 02/15/13 10:56**

**Lab Sample ID: 250-10041-3**  
**Matrix: Solid**  
**Percent Solids: 82.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.47		0.12		mg/Kg	☼	02/20/13 16:58	02/21/13 01:16	1

**Client Sample ID: B2-SS2**  
**Date Collected: 02/14/13 09:35**  
**Date Received: 02/15/13 10:56**

**Lab Sample ID: 250-10041-4**  
**Matrix: Solid**  
**Percent Solids: 81.6**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.13		0.10		mg/Kg	☼	02/20/13 16:58	02/21/13 01:19	1

**Client Sample ID: B2-SS3**  
**Date Collected: 02/14/13 09:40**  
**Date Received: 02/15/13 10:56**

**Lab Sample ID: 250-10041-5**  
**Matrix: Solid**  
**Percent Solids: 84.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.11		mg/Kg	☼	02/20/13 16:58	02/21/13 01:21	1

**Client Sample ID: B3-SS1**  
**Date Collected: 02/14/13 10:00**  
**Date Received: 02/15/13 10:56**

**Lab Sample ID: 250-10041-6**  
**Matrix: Solid**  
**Percent Solids: 84.3**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.11		mg/Kg	☼	02/20/13 16:58	02/21/13 01:24	1

**Client Sample ID: B3-SS2**  
**Date Collected: 02/14/13 10:05**  
**Date Received: 02/15/13 10:56**

**Lab Sample ID: 250-10041-7**  
**Matrix: Solid**  
**Percent Solids: 70.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.14		mg/Kg	☼	02/20/13 16:58	02/21/13 01:26	1

**Client Sample ID: B3-SS3**  
**Date Collected: 02/14/13 10:10**  
**Date Received: 02/15/13 10:56**

**Lab Sample ID: 250-10041-8**  
**Matrix: Solid**  
**Percent Solids: 80.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.10		mg/Kg	☼	02/20/13 16:58	02/21/13 01:29	1

**Client Sample ID: B4-SS1**  
**Date Collected: 02/14/13 10:50**  
**Date Received: 02/15/13 10:56**

**Lab Sample ID: 250-10041-9**  
**Matrix: Solid**  
**Percent Solids: 84.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.11		mg/Kg	☼	02/20/13 16:58	02/21/13 01:31	1

TestAmerica Portland

# Client Sample Results

Client: Clark County Environmental Health  
Project/Site: Today's Family Dentistry

TestAmerica Job ID: 250-10041-1

## Method: 7471A - Mercury (CVAA)

**Client Sample ID: B4-SS2**  
**Date Collected: 02/14/13 11:00**  
**Date Received: 02/15/13 10:56**

**Lab Sample ID: 250-10041-10**  
**Matrix: Solid**  
**Percent Solids: 77.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.11		mg/Kg	☼	02/20/13 16:58	02/21/13 01:34	1

**Client Sample ID: B4-SS3**  
**Date Collected: 02/14/13 11:05**  
**Date Received: 02/15/13 10:56**

**Lab Sample ID: 250-10041-11**  
**Matrix: Solid**  
**Percent Solids: 81.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.11		mg/Kg	☼	02/20/13 16:58	02/21/13 01:36	1

# Client Sample Results

Client: Clark County Environmental Health  
 Project/Site: Today's Family Dentistry

TestAmerica Job ID: 250-10041-1

## General Chemistry

**Client Sample ID: B1-SS1**  
**Date Collected: 02/14/13 08:45**  
**Date Received: 02/15/13 10:56**

**Lab Sample ID: 250-10041-1**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14		0.010		%			02/16/13 14:26	1
Percent Solids	86		0.010		%			02/16/13 14:26	1

**Client Sample ID: B1-SS2**  
**Date Collected: 02/14/13 08:55**  
**Date Received: 02/15/13 10:56**

**Lab Sample ID: 250-10041-2**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16		0.010		%			02/16/13 14:26	1
Percent Solids	84		0.010		%			02/16/13 14:26	1

**Client Sample ID: B2-SS1**  
**Date Collected: 02/14/13 09:30**  
**Date Received: 02/15/13 10:56**

**Lab Sample ID: 250-10041-3**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18		0.010		%			02/16/13 14:26	1
Percent Solids	82		0.010		%			02/16/13 14:26	1

**Client Sample ID: B2-SS2**  
**Date Collected: 02/14/13 09:35**  
**Date Received: 02/15/13 10:56**

**Lab Sample ID: 250-10041-4**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18		0.010		%			02/16/13 14:26	1
Percent Solids	82		0.010		%			02/16/13 14:26	1

**Client Sample ID: B2-SS3**  
**Date Collected: 02/14/13 09:40**  
**Date Received: 02/15/13 10:56**

**Lab Sample ID: 250-10041-5**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16		0.010		%			02/16/13 14:26	1
Percent Solids	84		0.010		%			02/16/13 14:26	1

**Client Sample ID: B3-SS1**  
**Date Collected: 02/14/13 10:00**  
**Date Received: 02/15/13 10:56**

**Lab Sample ID: 250-10041-6**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16		0.010		%			02/16/13 14:26	1
Percent Solids	84		0.010		%			02/16/13 14:26	1

**Client Sample ID: B3-SS2**  
**Date Collected: 02/14/13 10:05**  
**Date Received: 02/15/13 10:56**

**Lab Sample ID: 250-10041-7**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	29		0.010		%			02/16/13 14:26	1
Percent Solids	71		0.010		%			02/16/13 14:26	1

**Client Sample ID: B3-SS3**  
**Date Collected: 02/14/13 10:10**  
**Date Received: 02/15/13 10:56**

**Lab Sample ID: 250-10041-8**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20		0.010		%			02/16/13 14:31	1
Percent Solids	80		0.010		%			02/16/13 14:31	1

TestAmerica Portland

# Client Sample Results

Client: Clark County Environmental Health  
Project/Site: Today's Family Dentistry

TestAmerica Job ID: 250-10041-1

## General Chemistry

**Client Sample ID: B4-SS1**  
**Date Collected: 02/14/13 10:50**  
**Date Received: 02/15/13 10:56**

**Lab Sample ID: 250-10041-9**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16		0.010		%			02/16/13 14:31	1
Percent Solids	84		0.010		%			02/16/13 14:31	1

**Client Sample ID: B4-SS2**  
**Date Collected: 02/14/13 11:00**  
**Date Received: 02/15/13 10:56**

**Lab Sample ID: 250-10041-10**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23		0.010		%			02/16/13 14:31	1
Percent Solids	77		0.010		%			02/16/13 14:31	1

**Client Sample ID: B4-SS3**  
**Date Collected: 02/14/13 11:05**  
**Date Received: 02/15/13 10:56**

**Lab Sample ID: 250-10041-11**  
**Matrix: Solid**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19		0.010		%			02/16/13 14:31	1
Percent Solids	81		0.010		%			02/16/13 14:31	1

# QC Sample Results

Client: Clark County Environmental Health  
 Project/Site: Today's Family Dentistry

TestAmerica Job ID: 250-10041-1

## Method: 200.8 - Metals (ICP/MS)

**Lab Sample ID: MB 250-14302/1-A**

**Matrix: Water**

**Analysis Batch: 14334**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 14302**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.0		ug/L		02/18/13 08:27	02/18/13 16:43	1
Arsenic	ND		1.0		ug/L		02/18/13 08:27	02/18/13 16:43	1
Beryllium	ND		2.0		ug/L		02/18/13 08:27	02/18/13 16:43	1
Cadmium	ND		1.0		ug/L		02/18/13 08:27	02/18/13 16:43	1
Chromium	ND		2.0		ug/L		02/18/13 08:27	02/18/13 16:43	1
Copper	ND		2.0		ug/L		02/18/13 08:27	02/18/13 16:43	1
Lead	ND		1.0		ug/L		02/18/13 08:27	02/18/13 16:43	1
Nickel	ND		2.0		ug/L		02/18/13 08:27	02/18/13 16:43	1
Selenium	ND		1.0		ug/L		02/18/13 08:27	02/18/13 16:43	1
Silver	ND		1.0		ug/L		02/18/13 08:27	02/18/13 16:43	1
Thallium	ND		1.0		ug/L		02/18/13 08:27	02/18/13 16:43	1
Zinc	ND		10		ug/L		02/18/13 08:27	02/18/13 16:43	1

**Lab Sample ID: LCS 250-14302/2-A**

**Matrix: Water**

**Analysis Batch: 14334**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 14302**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	50.0	51.0		ug/L		102	85 - 115
Arsenic	100	104		ug/L		104	85 - 115
Beryllium	50.0	50.1		ug/L		100	85 - 115
Cadmium	100	103		ug/L		103	85 - 115
Chromium	100	107		ug/L		107	85 - 115
Copper	100	105		ug/L		105	85 - 115
Lead	100	105		ug/L		105	85 - 115
Nickel	100	103		ug/L		103	85 - 115
Selenium	100	103		ug/L		103	85 - 115
Silver	50.0	52.5		ug/L		105	85 - 115
Thallium	50.0	51.3		ug/L		103	85 - 115
Zinc	100	104		ug/L		104	85 - 115

**Lab Sample ID: 250-10042-C-2-B MS**

**Matrix: Water**

**Analysis Batch: 14334**

**Client Sample ID: Matrix Spike**

**Prep Type: Total/NA**

**Prep Batch: 14302**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	1.4		50.0	56.9		ug/L		111	70 - 130
Arsenic	16		100	124		ug/L		107	70 - 130
Beryllium	ND		50.0	46.4		ug/L		93	70 - 130
Cadmium	ND		100	107		ug/L		107	70 - 130
Chromium	5.5		100	111		ug/L		106	70 - 130
Copper	17		100	116		ug/L		98	70 - 130
Lead	ND		100	98.4		ug/L		98	70 - 130
Nickel	3.2		100	99.6		ug/L		96	70 - 130
Selenium	3.1		100	116		ug/L		113	70 - 130
Silver	ND		50.0	51.0		ug/L		102	70 - 130
Thallium	ND		50.0	47.4		ug/L		95	70 - 130
Zinc	ND		100	104		ug/L		97	70 - 130

TestAmerica Portland

# QC Sample Results

Client: Clark County Environmental Health  
Project/Site: Today's Family Dentistry

TestAmerica Job ID: 250-10041-1

## Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 250-10042-C-1-B DU

Matrix: Water

Analysis Batch: 14334

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 14302

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	RPD	Limit
	Result	Qualifier	Result	Qualifier					
Antimony	4.0		3.91		ug/L		1		20
Arsenic	13		12.9		ug/L		3		20
Beryllium	ND		ND		ug/L		NC		20
Cadmium	ND		ND		ug/L		NC		20
Chromium	ND		ND		ug/L		NC		20
Copper	5.0		5.10		ug/L		2		20
Lead	ND		ND		ug/L		NC		20
Nickel	ND		ND		ug/L		NC		20
Selenium	2.7		2.52		ug/L		8		20
Silver	ND		ND		ug/L		NC		20
Thallium	ND		ND		ug/L		NC		20
Zinc	ND		ND		ug/L		NC		20

## Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 250-14289/1-A

Matrix: Solid

Analysis Batch: 14322

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 14289

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Cadmium	ND		0.49		mg/Kg		02/16/13 14:17	02/17/13 15:03	10
Antimony	ND		0.49		mg/Kg		02/16/13 14:17	02/17/13 15:03	10
Beryllium	ND		0.99		mg/Kg		02/16/13 14:17	02/17/13 15:03	10
Thallium	ND		0.49		mg/Kg		02/16/13 14:17	02/17/13 15:03	10
Nickel	ND		0.99		mg/Kg		02/16/13 14:17	02/17/13 15:03	10
Silver	ND		0.49		mg/Kg		02/16/13 14:17	02/17/13 15:03	10
Arsenic	ND		0.49		mg/Kg		02/16/13 14:17	02/17/13 15:03	10
Copper	ND		0.99		mg/Kg		02/16/13 14:17	02/17/13 15:03	10
Lead	ND		0.49		mg/Kg		02/16/13 14:17	02/17/13 15:03	10
Zinc	ND		4.9		mg/Kg		02/16/13 14:17	02/17/13 15:03	10
Selenium	ND		0.49		mg/Kg		02/16/13 14:17	02/17/13 15:03	10
Chromium	ND		0.99		mg/Kg		02/16/13 14:17	02/17/13 15:03	10

Lab Sample ID: LCS 250-14289/2-A

Matrix: Solid

Analysis Batch: 14322

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 14289

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Cadmium	49.9	53.6		mg/Kg		107	80 - 120
Antimony	25.0	26.8		mg/Kg		107	80 - 120
Beryllium	25.0	25.9		mg/Kg		104	80 - 120
Thallium	25.0	26.5		mg/Kg		106	80 - 120
Nickel	49.9	52.5		mg/Kg		105	80 - 120
Silver	25.0	27.2		mg/Kg		109	80 - 120
Arsenic	49.9	52.4		mg/Kg		105	80 - 120
Copper	49.9	53.1		mg/Kg		106	80 - 120
Lead	49.9	54.3		mg/Kg		109	80 - 120
Zinc	49.9	52.9		mg/Kg		106	80 - 120

TestAmerica Portland

# QC Sample Results

Client: Clark County Environmental Health  
 Project/Site: Today's Family Dentistry

TestAmerica Job ID: 250-10041-1

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: LCS 250-14289/2-A**  
**Matrix: Solid**  
**Analysis Batch: 14322**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 14289**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Selenium	49.9	52.3		mg/Kg		105	80 - 120
Chromium	49.9	54.5		mg/Kg		109	80 - 120

**Lab Sample ID: 250-10040-A-1-B MS**  
**Matrix: Solid**  
**Analysis Batch: 14322**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 14289**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	ND		56.9	55.2		mg/Kg	*	97	75 - 125
Antimony	ND		28.4	19.0	F	mg/Kg	*	66	75 - 125
Beryllium	ND		28.4	25.8		mg/Kg	*	89	75 - 125
Thallium	ND		28.4	26.8		mg/Kg	*	94	75 - 125
Nickel	18		56.9	66.5		mg/Kg	*	85	75 - 125
Silver	ND		28.4	27.7		mg/Kg	*	97	75 - 125
Arsenic	2.8		56.9	53.2		mg/Kg	*	89	75 - 125
Copper	35		56.9	83.4		mg/Kg	*	85	75 - 125
Lead	11		56.9	64.2		mg/Kg	*	93	75 - 125
Zinc	74		56.9	119		mg/Kg	*	78	75 - 125
Selenium	ND		56.9	51.4		mg/Kg	*	90	75 - 125
Chromium	21		56.9	69.1		mg/Kg	*	84	75 - 125

**Lab Sample ID: 250-10040-A-1-C MSD**  
**Matrix: Solid**  
**Analysis Batch: 14322**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 14289**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cadmium	ND		58.4	63.5		mg/Kg	*	108	75 - 125	14	40
Antimony	ND		29.2	23.2		mg/Kg	*	79	75 - 125	20	40
Beryllium	ND		29.2	29.6		mg/Kg	*	99	75 - 125	14	40
Thallium	ND		29.2	30.8		mg/Kg	*	105	75 - 125	14	40
Nickel	18		58.4	73.4		mg/Kg	*	95	75 - 125	10	40
Silver	ND		29.2	32.0		mg/Kg	*	109	75 - 125	14	40
Arsenic	2.8		58.4	60.2		mg/Kg	*	98	75 - 125	12	40
Copper	35		58.4	93.5		mg/Kg	*	100	75 - 125	11	40
Lead	11		58.4	73.2		mg/Kg	*	106	75 - 125	13	40
Zinc	74		58.4	129		mg/Kg	*	93	75 - 125	8	40
Selenium	ND		58.4	58.9		mg/Kg	*	101	75 - 125	13	40
Chromium	21		58.4	76.0		mg/Kg	*	94	75 - 125	10	40

**Lab Sample ID: MB 250-14290/1-A**  
**Matrix: Solid**  
**Analysis Batch: 14322**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 14290**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.49		mg/Kg		02/16/13 14:21	02/17/13 16:41	10
Antimony	ND		0.49		mg/Kg		02/16/13 14:21	02/17/13 16:41	10
Beryllium	ND		0.99		mg/Kg		02/16/13 14:21	02/17/13 16:41	10
Thallium	ND		0.49		mg/Kg		02/16/13 14:21	02/17/13 16:41	10
Nickel	ND		0.99		mg/Kg		02/16/13 14:21	02/17/13 16:41	10

TestAmerica Portland

# QC Sample Results

Client: Clark County Environmental Health  
 Project/Site: Today's Family Dentistry

TestAmerica Job ID: 250-10041-1

## Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 250-14290/1-A

Matrix: Solid

Analysis Batch: 14322

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 14290

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.49		mg/Kg		02/16/13 14:21	02/17/13 16:41	10
Arsenic	ND		0.49		mg/Kg		02/16/13 14:21	02/17/13 16:41	10
Copper	ND		0.99		mg/Kg		02/16/13 14:21	02/17/13 16:41	10
Lead	ND		0.49		mg/Kg		02/16/13 14:21	02/17/13 16:41	10
Zinc	ND		4.9		mg/Kg		02/16/13 14:21	02/17/13 16:41	10
Selenium	ND		0.49		mg/Kg		02/16/13 14:21	02/17/13 16:41	10
Chromium	ND		0.99		mg/Kg		02/16/13 14:21	02/17/13 16:41	10

Lab Sample ID: LCS 250-14290/2-A

Matrix: Solid

Analysis Batch: 14322

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 14290

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	49.8	51.4		mg/Kg		103	80 - 120
Antimony	24.9	25.7		mg/Kg		103	80 - 120
Beryllium	24.9	24.5		mg/Kg		98	80 - 120
Thallium	24.9	25.2		mg/Kg		101	80 - 120
Nickel	49.8	50.3		mg/Kg		101	80 - 120
Silver	24.9	26.0		mg/Kg		104	80 - 120
Arsenic	49.8	50.5		mg/Kg		101	80 - 120
Copper	49.8	51.3		mg/Kg		103	80 - 120
Lead	49.8	52.4		mg/Kg		105	80 - 120
Zinc	49.8	51.5		mg/Kg		103	80 - 120
Selenium	49.8	50.3		mg/Kg		101	80 - 120
Chromium	49.8	52.7		mg/Kg		106	80 - 120

Lab Sample ID: 250-10041-6 MS

Matrix: Solid

Analysis Batch: 14322

Client Sample ID: B3-SS1

Prep Type: Total/NA

Prep Batch: 14290

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	ND		58.6	65.4		mg/Kg	✱	111	75 - 125
Antimony	ND		29.3	18.5	F	mg/Kg	✱	63	75 - 125
Beryllium	ND		29.3	29.9		mg/Kg	✱	100	75 - 125
Thallium	ND		29.3	31.4		mg/Kg	✱	107	75 - 125
Nickel	25		58.6	83.7		mg/Kg	✱	101	75 - 125
Silver	ND		29.3	32.4		mg/Kg	✱	110	75 - 125
Arsenic	2.8		58.6	63.8		mg/Kg	✱	104	75 - 125
Copper	37		58.6	99.6		mg/Kg	✱	106	75 - 125
Lead	5.5		58.6	68.4		mg/Kg	✱	107	75 - 125
Zinc	84		58.6	140		mg/Kg	✱	97	75 - 125
Selenium	ND		58.6	61.5		mg/Kg	✱	105	75 - 125
Chromium	24		58.6	86.5		mg/Kg	✱	106	75 - 125

TestAmerica Portland



# QC Sample Results

Client: Clark County Environmental Health  
 Project/Site: Today's Family Dentistry

TestAmerica Job ID: 250-10041-1

## Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 250-10041-6 MSD

Matrix: Solid

Analysis Batch: 14322

Client Sample ID: B3-SS1

Prep Type: Total/NA

Prep Batch: 14290

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Cadmium	ND		58.0	66.4		mg/Kg	☼	114	75 - 125	1	40
Antimony	ND		29.0	19.9	F	mg/Kg	☼	68	75 - 125	8	40
Beryllium	ND		29.0	30.0		mg/Kg	☼	101	75 - 125	0	40
Thallium	ND		29.0	31.9		mg/Kg	☼	109	75 - 125	2	40
Nickel	25		58.0	83.9		mg/Kg	☼	102	75 - 125	0	40
Silver	ND		29.0	33.0		mg/Kg	☼	113	75 - 125	2	40
Arsenic	2.8		58.0	65.2		mg/Kg	☼	108	75 - 125	2	40
Copper	37		58.0	100		mg/Kg	☼	108	75 - 125	1	40
Lead	5.5		58.0	69.0		mg/Kg	☼	109	75 - 125	1	40
Zinc	84		58.0	149		mg/Kg	☼	113	75 - 125	6	40
Selenium	ND		58.0	62.4		mg/Kg	☼	107	75 - 125	1	40
Chromium	24		58.0	89.0		mg/Kg	☼	111	75 - 125	3	40

## Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 250-14301/1-A

Matrix: Water

Analysis Batch: 14333

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 14301

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	ND		0.20		ug/L		02/17/13 16:30	02/18/13 16:56	1

Lab Sample ID: LCS 250-14301/2-A

Matrix: Water

Analysis Batch: 14333

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 14301

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
							Added
Mercury	5.00	5.00		ug/L		100	85 - 115

Lab Sample ID: 250-10040-D-13-B MS

Matrix: Water

Analysis Batch: 14333

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 14301

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				Limits
Mercury	1.2		5.00	5.78		ug/L		92	75 - 125

Lab Sample ID: 250-10040-D-13-C MSD

Matrix: Water

Analysis Batch: 14333

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 14301

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Mercury	1.2		5.00	5.75		ug/L		91	75 - 125	0	20

TestAmerica Portland

# QC Sample Results

Client: Clark County Environmental Health  
Project/Site: Today's Family Dentistry

TestAmerica Job ID: 250-10041-1

## Method: 7471A - Mercury (CVAA)

**Lab Sample ID: MB 250-14408/1-A**

**Matrix: Solid**

**Analysis Batch: 14415**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 14408**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.095		mg/Kg		02/20/13 16:58	02/21/13 00:27	1

**Lab Sample ID: LCS 250-14408/2-A**

**Matrix: Solid**

**Analysis Batch: 14415**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 14408**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.584	0.629		mg/Kg		108	80 - 120

**Lab Sample ID: 250-10040-A-4-D MS**

**Matrix: Solid**

**Analysis Batch: 14415**

**Client Sample ID: Matrix Spike**

**Prep Type: Total/NA**

**Prep Batch: 14408**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		0.703	0.774		mg/Kg	☼	106	75 - 125

**Lab Sample ID: 250-10040-A-4-E MSD**

**Matrix: Solid**

**Analysis Batch: 14415**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total/NA**

**Prep Batch: 14408**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.670	0.745		mg/Kg	☼	107	75 - 125	4	40

## Method: D2216-80 - Percent Dry Weight (Solids) per ASTM D2216-80

**Lab Sample ID: 250-10040-A-1 DU**

**Matrix: Solid**

**Analysis Batch: 14292**

**Client Sample ID: Duplicate**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	16		15		%		6	20
Percent Solids	84		85		%		1	20

**Lab Sample ID: 250-10041-8 DU**

**Matrix: Solid**

**Analysis Batch: 14293**

**Client Sample ID: B3-SS3**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	20		21		%		4	20
Percent Solids	80		79		%		1	20

TestAmerica Portland

# Certification Summary

Client: Clark County Environmental Health  
Project/Site: Today's Family Dentistry

TestAmerica Job ID: 250-10041-1

## Laboratory: TestAmerica Portland

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	OR00040	06-30-13
Alaska (UST)	State Program	10	UST-012	12-26-13
California	State Program	9	2597	09-30-13
Oregon	NELAP	10	OR100021	01-09-14
USDA	Federal		P330-11-00092	02-17-14
Washington	State Program	10	C586	06-23-13

# Method Summary

Client: Clark County Environmental Health  
Project/Site: Today's Family Dentistry

TestAmerica Job ID: 250-10041-1

Method	Method Description	Protocol	Laboratory
200.8	Metals (ICP/MS)	EPA	TAL PRT
6020	Metals (ICP/MS)	SW846	TAL PRT
7470A	Mercury (CVAA)	SW846	TAL PRT
7471A	Mercury (CVAA)	SW846	TAL PRT
D2216-80	Percent Dry Weight (Solids) per ASTM D2216-80	ASTM	TAL PRT

**Protocol References:**

ASTM = ASTM International

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL PRT = TestAmerica Portland, 9405 SW Nimbus Ave., Beaverton, OR 97008, TEL (503)906-9200

**Chain of Custody Record**

0405 SW Nimbus Ave  
503-906-9700 FAX 503-906-9210

TestAmerica Laboratories, Inc.

Client Contact Project Manager: <u>Bryan DeDuck</u> Tel/Fax: <u>1</u>		Site Contact: <u>Bryan DeDuck</u> Carrier: <u>2/14/12</u>		COC No. _____ of _____ COCs	
Client Name: <u>Clark County Public Health</u> Address: <u>PO Box 9825</u> City/State/Zip: <u>Vancouver, WA 98666</u> Phone: <u>360.397.8153</u> FAX: <u>360.759.6859</u>		Lab Contact: _____ Date: _____		Job No. <u>10041</u>	
Project Name: <u>Today's Family Dentistry</u> Site: <u>Today's Family Dentistry</u> PO # _____		Analysis Turnaround Time Calendar (C) or Work Days (W) _____ TAT if different from Below <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		SDG No. _____ Sampler: <u>Bryan DeDuck</u>	
Sample Identification Sample Date Sample Time Sample Type Matrix # of Cont.		Priority P Metals Filtered Sample		Sample Specific Notes:	
<u>B1-SS1</u> <u>B1-SS2</u> <del>B1-SS3</del> <u>B2-SS1</u> <u>B2-SS2</u> <u>B2-SS3</u> <u>B3-SS1</u> <u>B3-SS2</u> <u>B3-SS3</u> <u>B4-SS1</u> <u>B4-SS2</u> <u>B4-SS3</u>		<u>2/14/12</u> <u>8:45am</u> <u>8:50am</u> <u>9:30</u> <u>9:35</u> <u>9:40</u> <u>10:00</u> <u>10:05</u> <u>10:10</u> <u>10:50</u> <u>11:00</u> <u>11:05</u>		<u>Soil</u> <u>Soil</u> <u>Soil</u> <u>Soil</u> <u>Soil</u> <u>Soil</u> <u>Soil</u> <u>Soil</u> <u>Soil</u> <u>Soil</u> <u>Soil</u> <u>Soil</u>	
Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4= HNO3, 5= NaOH, 6= Other Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input checked="" type="checkbox"/>		Return To Client <input type="checkbox"/> Disposal By Lab <input checked="" type="checkbox"/> Archive For _____ Months		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Relinquished by: <u>Joe Ellington</u> Relinquished by: <u>Joan Mason</u> Relinquished by: <u>Joan Mason 2/17</u>		Received by: <u>Senady</u> Received by: <u>Senady</u> Received by: <u>Senady</u>		Date/Time: <u>2/15/12 9:45</u> Date/Time: <u>2/15/12 9:45</u> Date/Time: <u>2/15/12 @ 10:56</u>	



**Chain of Custody Record**

9405 SW Nimbus Ave  
Beaverton, OR 97008-7145  
503-906-9200 Fax 503-906-9210

<b>Client Contact</b> Client Name: <u>Clark County Public Health</u> Address: <u>PO Box 9825</u> City/State/Zip: <u>Vancouver, WA 98606</u> Phone: <u>360 397 8153</u> FAX: <u>360 591 6852</u>		<b>Project Manager:</b> <u>Bryan DeDeker</u> Date: <u>2/14/13</u> Carrier: _____			
<b>Analysis Turnaround Time</b> Calendar (C) or Work Days (W) <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Job No. _____ SDG No. _____ Sampler: <u>Bryan DeDeker</u>			
Project Name: <u>Today's Family Dentistry</u> Site: <u>Today's Family Dentistry</u> P O # _____		Sample Specific Notes: _____			
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.
<del>B1-GWS1</del>	2/14/13	9:15	G/H2O		1
<del>B2-GWS1</del>	↓	9:50	↓		1
<del>B3-GWS1</del>	↓	10:25	↓		1
<del>B4-GWS1</del>	↓	11:15	↓		1
Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4= HNO3, 5= NaOH, 6= Other Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown					
Special Instructions/QC Requirements & Comments: _____					
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			Date/Time: _____ Date/Time: _____		
Relinquished by: _____ Date/Time: _____			Company: _____ Date/Time: _____		
Relinquished by: _____ Date/Time: _____			Company: _____ Date/Time: _____		
Relinquished by: _____ Date/Time: _____			Company: _____ Date/Time: _____		

## Login Sample Receipt Checklist

Client: Clark County Environmental Health

Job Number: 250-10041-1

**Login Number: 10041**

**List Source: TestAmerica Portland**

**List Number: 1**

**Creator: Krause, Thomas**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	False	Cooler temperature outside required temperature criteria.
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE  
BEAVERTON, OR 97008-7132  
ph: (503) 906.9200 fax: (503) 906.9210  
ORELAP#: OR100021

March 04, 2010

Dee Williams  
Washington Dept. of Ecology-Olympia  
300 Desmond Drive  
Lacey, WA 98503

RE: Perkins Dental

Enclosed are the results of analyses for samples received by the laboratory on 02/18/10 15:25.  
The following list is a summary of the Work Orders contained in this report, generated on 03/04/10  
15:59.

If you have any questions concerning this report, please feel free to contact me.

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<u>Work Order</u>	<u>Project</u>	<u>ProjectNumber</u>
PTB0541	Perkins Dental	[none]

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TestAmerica Portland

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Darrell Auvil, Project Manager




<b>Washington Dept. of Ecology-Olympia</b> 300 Desmond Drive Lacey, WA 98503	<b>Project Name:</b> Perkins Dental <b>Project Number:</b> [none] <b>Project Manager:</b> Dee Williams	<b>Report Created:</b> 03/04/10 15:59
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**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
001	PTB0541-01	Other dry	02/18/10 11:50	02/18/10 15:25

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Darrell Auvil, Project Manager

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Washington Dept. of Ecology-Olympia 300 Desmond Drive Lacey, WA 98503	Project Name: <b>Perkins Dental</b> Project Number: [none] Project Manager: Dee Williams	Report Created: 03/04/10 15:59
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**Total Metals per EPA 6000/7000 Series Methods**  
 TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>PTB0541-01 (001)</b>		<b>Other dry</b>				<b>Sampled: 02/18/10 11:50</b>				
Arsenic	EPA 6020	5.38	----	4.76	mg/kg dry	1x	10B0603	02/19/10 15:13	02/22/10 16:27	
Barium	"	372	---	4.76	"	"	"	"	"	
Cadmium	"	ND	----	4.76	"	"	"	"	"	
Chromium	"	28.1	---	9.52	"	"	"	"	"	
Copper	"	3210	---	9.52	"	"	"	"	"	
Lead	"	107	----	4.76	"	"	"	"	"	
Nickel	"	35.4	----	9.52	"	"	"	"	"	
Selenium	"	ND	----	4.76	"	"	"	"	"	
Zinc	"	2330	----	47.6	"	"	"	"	"	
<b>PTB0541-01RE2 (001)</b>		<b>Other dry</b>				<b>Sampled: 02/18/10 11:50</b>				
Silver	EPA 6020	6940	---	159	mg/kg dry	1x	10B0796	02/26/10 16:13	02/27/10 16:12	

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Darrell Auvil, Project Manager

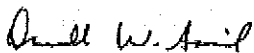
Washington Dept. of Ecology-Olympia 300 Desmond Drive Lacey, WA 98503	Project Name: <b>Perkins Dental</b> Project Number: [none] Project Manager: Dee Williams	Report Created: 03/04/10 15:59
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**Total Mercury per EPA Method 7471A**  
 TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTB0541-01 (001)					Other dry			Sampled: 02/18/10 11:50		
Mercury	EPA 7471A	4410	--	4260	mg/kg dry	5000x	10B0753	02/25/10 13:12	02/26/10 12:58	B1

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Darrell Auvil, Project Manager

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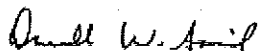
<b>Washington Dept. of Ecology-Olympia</b> 300 Desmond Drive Lacey, WA 98503	Project Name: <b>Perkins Dental</b> Project Number: [none] Project Manager: Dee Williams	Report Created: 03/04/10 15:59
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**Percent Dry Weight (Solids) per ASTM D2216-80**  
 TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTB0541-01 (001)					Other dry			Sampled: 02/18/10 11:50		
% Solids	NCA SOP	10.5	—	0.0100	% by Weight	1x	10B0607	02/20/10 08:08	02/20/10 08:08	

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Darrell Auvil, Project Manager

Washington Dept. of Ecology-Olympia 300 Desmond Drive Lacey, WA 98503	Project Name: <b>Perkins Dental</b> Project Number: [none] Project Manager: Dee Williams	Report Created: 03/04/10 15:59
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**Total Metals per EPA 6000/7000 Series Methods - Laboratory Quality Control Results**  
TestAmerica Portland

QC Batch: 10B0603	Soil Preparation Method: EPA 3050
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Analyte	Method	Result	MDL <sup>A</sup>	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
<b>Blank (10B0603-BLK1)</b>													Extracted: 02/19/10 15:13	
Arsenic	EPA 6020	ND	---	0.476	mg/kg wet	1x	--	--	--	--	--	--	02/22/10 15:32	
Barium	"	ND	---	0.476	"	"	--	--	--	--	--	--	"	
Cadmium	"	ND	---	0.476	"	"	--	--	--	--	--	--	"	
Chromium	"	ND	---	0.952	"	"	--	--	--	--	--	--	"	
Copper	"	ND	---	0.952	"	"	--	--	--	--	--	--	"	
Lead	"	ND	---	0.476	"	"	--	--	--	--	--	--	"	
Nickel	"	ND	---	0.952	"	"	--	--	--	--	--	--	"	
Selenium	"	ND	---	0.476	"	"	--	--	--	--	--	--	"	
Zinc	"	ND	---	4.76	"	"	--	--	--	--	--	--	"	

<b>LCS (10B0603-BS1)</b>													Extracted: 02/19/10 15:13	
Arsenic	EPA 6020	46.7	---	0.481	mg/kg wet	1x	--	48.1	97.2%	(80-120)	--	--	02/22/10 15:40	
Barium	"	44.6	---	0.481	"	"	--	"	92.8%	"	--	--	"	
Cadmium	"	46.7	---	0.481	"	"	--	"	97.1%	"	--	--	"	
Chromium	"	46.3	---	0.962	"	"	--	"	96.3%	"	--	--	"	
Copper	"	46.9	---	0.962	"	"	--	"	97.6%	"	--	--	"	
Lead	"	47.3	---	0.481	"	"	--	"	98.4%	"	--	--	"	
Nickel	"	47.5	---	0.962	"	"	--	"	98.8%	"	--	--	"	
Selenium	"	46.2	---	0.481	"	"	--	"	96.2%	"	--	--	"	
Zinc	"	45.4	---	4.81	"	"	--	"	94.3%	"	--	--	"	

<b>Matrix Spike (10B0603-MS1)</b>													QC Source: PTB0416-09		Extracted: 02/19/10 15:13	
Arsenic	EPA 6020	119	---	1.32	mg/kg dry	1x	1.31	132	89.4%	(75-125)	--	--	02/22/10 16:12			
Barium	"	287	---	1.32	"	"	163	"	94.0%	"	--	--	"			
Cadmium	"	127	---	1.32	"	"	0.0531	"	96.8%	"	--	--	"			
Chromium	"	154	---	2.63	"	"	27.9	"	95.9%	"	--	--	"			
Copper	"	166	---	2.63	"	"	41.4	"	95.0%	"	--	--	"			
Lead	"	142	---	1.32	"	"	13.1	"	97.9%	"	--	--	"			
Nickel	"	157	---	2.63	"	"	32.1	"	94.8%	"	--	--	"			
Selenium	"	116	---	1.32	"	"	0.199	"	87.7%	"	--	--	"			
Zinc	"	173	---	13.2	"	"	49.7	"	93.5%	"	--	--	"			

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Darrell Auvil, Project Manager

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Washington Dept. of Ecology-Olympia 300 Desmond Drive Lacey, WA 98503	Project Name: <b>Perkins Dental</b> Project Number: [none] Project Manager: Dee Williams	Report Created: 03/04/10 15:59
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**Total Metals per EPA 6000/7000 Series Methods - Laboratory Quality Control Results**  
TestAmerica Portland

QC Batch: 10B0603      Soil Preparation Method: EPA 3050

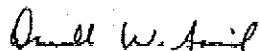
Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
<b>Matrix Spike Dup (10B0603-MSD1)</b>			QC Source: PTB0416-09				Extracted: 02/19/10 15:13							
Arsenic	EPA 6020	120	---	1.35	mg/kg dry	1x	1.31	135	87.8%	(75-125)	1.07%	(40)	02/22/10 16:19	
Barium	"	271	---	1.35	"	"	163	"	79.8%	"	5.63%	"	"	
Cadmium	"	128	---	1.35	"	"	0.0531	"	94.5%	"	0.473%	"	"	
Chromium	"	152	---	2.71	"	"	27.9	"	91.5%	"	1.46%	"	"	
Copper	"	165	---	2.71	"	"	41.4	"	91.1%	"	0.970%	"	"	
Lead	"	139	---	1.35	"	"	13.1	"	93.1%	"	1.94%	"	"	
Nickel	"	157	---	2.71	"	"	32.1	"	92.2%	"	0.0913%	"	"	
Selenium	"	120	---	1.35	"	"	0.199	"	88.5%	"	3.85%	"	"	
Zinc	"	171	---	13.5	"	"	49.7	"	89.3%	"	1.22%	"	"	

QC Batch: 10B0796      Other dry Preparation Method: EPA 3050

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
<b>Blank (10B0796-BLK1)</b>							Extracted: 02/26/10 16:13							
Silver	EPA 6020	ND	---	0.500	mg/kg wet	1x	--	--	--	--	--	--	02/27/10 15:57	
<b>LCS (10B0796-BS1)</b>							Extracted: 02/26/10 16:13							
Silver	EPA 6020	23.9	---	0.500	mg/kg wet	1x	--	25.0	95.4%	(80-120)	--	--	02/27/10 16:05	
<b>Matrix Spike (10B0796-MS1)</b>			QC Source: PTB0599-01RE1				Extracted: 02/26/10 16:13							
Silver	EPA 6020	23.2	---	0.495	mg/kg wet	1x	0.00980	24.8	93.7%	(75-125)	--	--	02/27/10 16:36	
<b>Matrix Spike Dup (10B0796-MSD1)</b>			QC Source: PTB0599-01RE1				Extracted: 02/26/10 16:13							
Silver	EPA 6020	22.9	---	0.481	mg/kg wet	1x	0.00980	24.0	95.4%	(75-125)	1.15%	(40)	02/27/10 16:44	

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Darrell Auvil, Project Manager

Washington Dept. of Ecology-Olympia 300 Desmond Drive Lacey, WA 98503	Project Name: <b>Perkins Dental</b> Project Number: [none] Project Manager: Dee Williams	Report Created: 03/04/10 15:59
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**Total Mercury per EPA Method 7471A - Laboratory Quality Control Results**  
 TestAmerica Portland

QC Batch: 10B0753	Other dry Preparation Method: EPA 7471A
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Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes		
<b>Blank (10B0753-BLK1)</b>											Extracted: 02/25/10 13:12					
Mercury	EPA 7471A	0.180	---	0.0985	mg/kg wet	1x	--	--	--	--	--	--	02/26/10 10:45	B		
<b>LCS (10B0753-BS1)</b>											Extracted: 02/25/10 13:12					
Mercury	EPA 7471A	0.636	---	0.0988	mg/kg wet	1x	--	0.617	103%	(80-120)	--	--	02/26/10 10:48			
<b>LCS Dup (10B0753-BSD1)</b>											Extracted: 02/25/10 13:12					
Mercury	EPA 7471A	0.625	---	0.0988	mg/kg wet	1x	--	0.617	101%	(80-120)	1.70%	(20)	02/26/10 10:51			
<b>Duplicate (10B0753-DUP1)</b>											QC Source: PTB0602-04		Extracted: 02/25/10 13:12			
Mercury	EPA 7471A	56.9	---	10.1	mg/kg wet	100x	42.8	--	--	--	28.2%	(40)	02/26/10 11:02			
<b>Matrix Spike (10B0753-MS1)</b>											QC Source: PTB0602-03		Extracted: 02/25/10 13:12			
Mercury	EPA 7471A	57.2	---	9.76	mg/kg wet	100x	119	0.610	-10100	(75-125)	--	--	02/26/10 11:04	MHA		
<b>Matrix Spike Dup (10B0753-MSD1)</b>											QC Source: PTB0602-03		Extracted: 02/25/10 13:12			
Mercury	EPA 7471A	93.6	---	10.2	mg/kg wet	100x	119	0.639	-3990%	(75-125)	48.2%	(40)	02/26/10 11:07	MHA		

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*Darrell W. Auvil*

Darrell Auvil, Project Manager

Washington Dept. of Ecology-Olympia 300 Desmond Drive Lacey, WA 98503	Project Name: <b>Perkins Dental</b> Project Number: [none] Project Manager: Dee Williams	Report Created: 03/04/10 15:59
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**Percent Dry Weight (Solids) per ASTM D2216-80 - Laboratory Quality Control Results**  
 TestAmerica Portland

QC Batch: 10B0607      Soil Preparation Method: Dry Weight

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
<b>Duplicate (10B0607-DUP1)</b>			QC Source: PIB0557-01				Extracted: 02/20/10 08:08							
% Solids	NCA SOP	95.8	---	0.0100	% by Weight	1x	95.8	--	--	--	0.00% (20)		02/20/10 08:08	

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Darrell Auvil, Project Manager



**Washington Dept. of Ecology-Olympia**

300 Desmond Drive  
Lacey, WA 98503

Project Name: **Perkins Dental**  
Project Number: [none]  
Project Manager: Dee Williams

Report Created:  
03/04/10 15:59

## Notes and Definitions

### Report Specific Notes:

- B - Analyte was detected in the associated Method Blank.
- BI - Analyte was detected in the associated method blank. Analyte concentration in the sample is greater than 10x the concentration found in the method blank.
- MHA - Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See Blank Spike (LCS).

### Laboratory Reporting Conventions:

- DET - Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.
- ND - Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).
- NR/NA - Not Reported / Not Available
- dry - Sample results reported on a Dry Weight Basis. Results and Reporting Limits have been corrected for Percent Dry Weight.
- wet - Sample results and reporting limits reported on a Wet Weight Basis (as received). Results with neither 'wet' nor 'dry' are reported on a Wet Weight Basis.
- RPD - RELATIVE PERCENT DIFFERENCE (RPDs calculated using Results, not Percent Recoveries).
- MRL - METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.
- MDL\* - METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. \*MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated Results.
- Dil - Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.
- Reporting Limits - Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.
- Electronic Signature - Electronic Signature added in accordance with TestAmerica's *Electronic Reporting and Electronic Signatures Policy*. Application of electronic signature indicates that the report has been reviewed and approved for release by the laboratory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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Darrell Auvil, Project Manager



TestAmerica Portland  
Sample Receiving Checklist

Work Order #: PTB0541 Date/Time Received: 2/18/10 1525  
Client Name and Project: WA. Dept of Ecology Perkins Dental

Time Zone:  
 EDT/EST     CDT/CST     MDT/MST     PDT/PST     AK     OTHER

Unpacking Checks:

Cooler #(s): 1  
 Temperatures: 0.1 \_\_\_\_\_  
 Digi #1  Digi #2  IR Gun  ( Plastic  Glass)

Temperature out of Range:

Not enough or No Ice  
 Ice Melted  
 W/in 4 Hrs of collection  
 Other: unknown

Initials: mm

N/A Yes No

1. If ESI client, were temp blanks received? If no, document on NOD.
2. Cooler Seals intact? (N/A if hand delivered) if no, document on NOD.
3. Chain of Custody present? If no, document on NOD.
4. Bottles received intact? If no, document on NOD.
5. Sample is not multiphasic? If no, document on NOD.
6. Proper Container and preservatives used? If no, document on NOD.
7. pH of all samples checked and meet requirements? If no, document on NOD.
8. Cyanide samples checked for sulfides and meet requirements? If no, notify PM.
9. HF Dilution required?
10. Sufficient volume provided for all analysis? If no, document on NOD and consult PM before proceeding.
11. Did chain of custody agree with samples received? If no, document on NOD.
12. Is the "Sampled by" section of the COC completed?
13. Were VOA/Oil Syringe samples without headspace?
14. Were VOA vials preserved?  HCl  Sodium Thiosulfate  Ascorbic Acid
15. Did samples require preservation with sodium thiosulfate?
16. If yes to #14, was the residual chlorine test negative? If no, document on NOD.
17. Are dissolved/field filtered metals bottles sediment-free? If no, document on NOD.
18. Is sufficient volume provided for client requested MS/MSD or matrix duplicates? If no, document on NOD and contact PM before proceeding.
19. Are analyses with short holding times received in hold?
20. Was Standard Turn Around (TAT) requested?
21. Receipt date(s) < 48 hours past the collection date(s)? If no, notify PM.

TestAmerica Portland  
Sample Receiving Checklist

Work Order #: PTB0541

Login Checks:

Initials: PS

N/A Yes No

22. Sufficient volume provided for all analysis? If no, document on NOD & contact PM.
23. Sufficient volume provided for client requested MS/MSD or matrix duplicates? If no, document on NOD and contact PM.
24. Did the chain of custody include "received by" and "relinquished by" signatures, dates and times?
25. Were special log in instructions read and followed?
26. Were tests logged checked against the COC?
27. Were rush notices printed and delivered?
28. Were short hold notices printed and delivered?
29. Were subcontract COCs printed?
30. Was HF dilution logged?

Labeling and Storage Checks:

Initials: PS

N/A Yes No

31. Were the subcontracted samples/containers put in Sx fridge?
32. Were sample bottles and COC double checked for dissolved/filtered metals?
33. Did the sample ID, Date, and Time from label match what was logged?
34. Were Foreign sample stickers affixed to each container and containers stored in foreign fridge?
35. Were HF stickers affixed to each container, and containers stored in Sx fridge?
36. Was an NOD for created for noted discrepancies and placed in folder?

Document any problems or discrepancies and the actions taken to resolve them on a Notice of Discrepancy form (NOD).



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11720 North Creek Pkwy N Suite 400, Bothell, WA 98011-8244  
 425-420-9200 FAX 420-9210  
 11922 E. First Ave. Spokane, WA 99206-5302  
 509-924-9200 FAX 924-9290  
 9405 SW Nimbus Ave. Beaverton, OR 97008-7145  
 503-906-9200 FAX 906-9210  
 2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119  
 907-563-9200 FAX 563-9210

## CHAIN OF CUSTODY REPORT

Work Order #:

CLIENT: *PERKINS DENTAL* INVOICE TO: *DEPT OF ECOLOGY*  
 REPORT TO: *DEE WILLIAMS* *deewilliams@ecology.wa.gov*  
 ADDRESS: *PO BOX 7775, OLYMPIA WA 98504-7775*  
 PHONE: *360-471-6348* FAX:  
 PROJECT NAME: *PERKINS DENTAL*  
 PROJECT NUMBER:  
 SAMPLED BY: *Dee Williams*

**TURNAROUND REQUEST**  
 in Business Days\*

Organic & Inorganic Analyses  
 7  5  4  3  2  1  <1

Petroleum Hydrocarbon Analyses  
 5  4  3  2  1  <1

OTHER Specify:  
 *STD.*

\* Turnaround Requests less than standard may incur Rush Charges.

MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA W/O ID	PRESERVATIVE																
				1	2	3	4	5	6	7	8	9	10							
0	1	SEPTIC																		
		WASTE																		
		STINKY																		

RECEIVED BY: *Dee Williams* DATE: *2-18-10* TIME: *3:05*  
 PRINT NAME: *Dee Williams* FIRM: *ECOLGY*  
 RECEIVED BY: *Jamila M* DATE: *2-18-10* TIME: *3:05*  
 PRINT NAME: *Jamila M* FIRM: *TRP*

ADDITIONAL REMARKS:  
*Total Metals 2004 @ + Lower Nickel Zinc - DRY WT REPORT*



All Entries in ppm, mg/kg or mg/L only (do not mix units)

Perkins Dental Metals	CAS Nr.	X	A	B	C	D	not dw	Data Source:
Arsenic	7440-38-2				5.38			ECOTOX: Fathead Minnow LC50 = 9.9 mg/L
Barium (Barium chloride)	10361-37-2				372.00			RTECS: Oral Rat LD50 = 118 mg/kg
Cadmium	7440-43-9	0.00						ECOTOX: Rainbow Trout LC50 0.0021 mg/L
Chromium	7440-47-3					28.10		ECOTOX: Rainbow Trout LC50 = 100 mg/L
Copper	7440-50-8		3,210.00					ECOTOX LC50 = 0.052 mg/L Rainbow trout
Lead	7439-92-1			107.00				ECOTOX: Rainbow Trout LC50 = 0.2 mg/L
Mercury	7439-97-6	4,410.00						ECOTOX: Rainbow Trout LC50 = 0.005 mg/L
Nickel	7440-02-0		35.40					ECOTOX LC50 = .050 mg/L Rainbow trout
Selenium	7782-49-2				0.00			ECOTOX: Rainbow Trout LC50 = 5.0 mg/L
Silver	7440-22-4	6,940.00						ECOTOX: Rainbow Trout LC50 = 0.0062 mg/L
Zinc	7440-66-6			2,330.00				ECOTOX: Rainbow Trout LC50 = 0.24 mg/L
Total (ppm, mg/kg or mg/L)		11,350.00	3,245.40	2,437.00	377.38	28.10	0.00	
I (%) per Toxic Category		1.13500	0.32454	0.24370	0.03774	0.00281	0.00000	
Equivalent Concentration)		1.13500	0.03245	0.00244	0.00004	0.00000		
Total EC		1.1699						

Designation Waste Code

Equivalent Conc. Range		
Total EC < 0.001 =	not DW	none
Total EC < 1.0 & > 0.001 =	DW	WT02
Total EC > 1.0 =	EHW	WT01

$$\text{Equivalent Concentration} = \sum X\% + \sum A\% + \sum B\% + \sum C\% + \sum D\%$$

	1	10	100	1,000	10,000
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Inhalation Dermal  
 Fish\* Oral Rat Rat Rabbit  
 LC50 LD50 LC50 LD50  
 Toxic Category (mg/L) (mg/kg) (mg/L) (mg/kg)

X	<0.01	<0.5	<0.02	<2
A	0.01-0.1	5-50	0.02-0.2	2-20
B	0.1-1	50-500	0.2-2	20-200
C	1-10	500-5,000	2-20	200-2,000
D	10-100	5,000-50,000	20-200	2,000-20,000



