



# NEILSON RESEARCH CORPORATION

*Environmental Testing Laboratory*

8/17/2016

Rick Rose  
Medford School District  
815 S Oakdale Ave  
Medford, OR 97501

TEL: (541) 842-1138

FAX: 541-842-1160

RE: 16-04 SMHS Lead Study

Order No.: 1608819

Dear Rick Rose:

Neilson Research Corporation received 3 sample(s) on 8/15/2016 for the analyses presented in the following report.

The results relate only to the parameters tested or to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of Neilson Research Corporation. If you have any questions regarding these test results, please feel free to call.

Sincerely,  
Neilson Research Corporation

Alec C Smith  
Project Manager

# Neilson Research Corporation

245 South Grape Street, Medford, Oregon 97501 541-770-5678 Fax 541-770-2901

## Analysis Report

ORELAP 100016  
EPA OR00028

**CLIENT:** Medford School District  
**Project:** 16-04 SMHS Lead Study  
**Lab Order:** 1608819

**Date:** 17-Aug-16

## CASE NARRATIVE

The analyses were performed according to the guidelines in the Neilson Research Corporation Quality Assurance Program. This report contains analytical results for the sample(s) as received by the laboratory.

Neilson Research Corporation certifies that this report is in compliance with the requirements of NELAP. No unusual difficulties were experienced during analysis of this batch except as noted below or qualified with data flags on the reports.

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## Analysis Report

ORELAP 100016  
EPA OR00028

Medford School District  
815 S Oakdale Ave  
Medford, OR 97501

Lab Order: **1608819**  
NRC Sample ID: **1608819-01A**  
Collection Date: **8/10/2016 7:03:00 AM**  
Received Date: **8/15/2016 9:51:00 AM**  
Reported Date: **8/17/2016 4:06:41 PM**

### Sample Information:

16-04 SMHS Lead Study

Client Sample ID: Bottle #21191  
Collectors Name: John Jessen  
Sample Location: Kitchen Wok Faucet  
Source: City Water

## ANALYTICAL RESULTS

Analyses	Method	NELAP Accredited	Result	Qual	MRL	Units	EPA Limit	Date Analyzed	Analyst
Lead	EPA 200.8	A	0.0361	*CF	0.0001	mg/L	0.020 AL	8/16/2016	OML

Notes: ND - Not Detected at the MRL

N.L. - No Limit

MRL - Minimum Reporting Limit

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## Analysis Report

ORELAP 100016  
EPA OR00028

Medford School District  
815 S Oakdale Ave  
Medford, OR 97501

Lab Order: **1608819**  
NRC Sample ID: **1608819-02A**  
Collection Date: **8/10/2016 7:06:00 AM**  
Received Date: **8/15/2016 9:51:00 AM**  
Reported Date: **8/17/2016 4:06:41 PM**

### Sample Information:

16-04 SMHS Lead Study

Client Sample ID: Bottle #23335  
Collectors Name: John Jessen  
Sample Location: Kitchen Steam Oven Lwr  
Source: City Water

## ANALYTICAL RESULTS

Analyses	Method	NELAP Accredited	Result	Qual	MRL	Units	EPA Limit	Date Analyzed	Analyst
Lead	EPA 200.8	A	0.0244	*CF	0.000103	mg/L	0.020 AL	8/16/2016	OML

Notes: ND - Not Detected at the MRL

N.L. - No Limit

MRL - Minimum Reporting Limit

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245 South Grape Street, Medford, Oregon 97501 541-770-5678 Fax 541-770-2901

## Analysis Report

ORELAP 100016  
EPA OR00028

Medford School District  
815 S Oakdale Ave  
Medford, OR 97501

Lab Order: **1608819**  
NRC Sample ID: **1608819-03A**  
Collection Date: **8/10/2016 7:07:00 AM**  
Received Date: **8/15/2016 9:51:00 AM**  
Reported Date: **8/17/2016 4:06:41 PM**

### Sample Information:

16-04 SMHS Lead Study

Client Sample ID: Bottle #23327  
Collectors Name: John Jessen  
Sample Location: Kitchen Steam Oven Upr  
Source: City Water

## ANALYTICAL RESULTS

Analyses	Method	NELAP Accredited	Result	Qual	MRL	Units	EPA Limit	Date Analyzed	Analyst
Lead	EPA 200.8	A	0.0273	*CF	0.000103	mg/L	0.020 AL	8/16/2016	OML

Notes: ND - Not Detected at the MRL

N.L. - No Limit

MRL - Minimum Reporting Limit

**Neilson Research Corporation**  
DATA FLAGS

B	Analyte detected in the associated method blank.
BA	BOD Alternative Calculation: The initial results performed by Standard Methods did not fall within parameters of the Standard Methods calculation. An alternate approved calculation was performed using the HACH method and the value reported is an estimated concentration.
C	Sample(s) does not meet NELAP/ORELAP sample acceptance criteria. See Case Narrative.
C1	Sample(s) does not meet NELAP/ORELAP sample acceptance criteria for temperature.
CF	Results confirmed by re-analysis.
CU	Cleanup performed as specified by method.
D1	The diesel elution pattern for the sample is not typical.
D2	The sample appears to be a heavier hydrocarbon range than diesel.
D3	The sample appears to be a lighter hydrocarbon range than diesel.
D4	Detected hydrocarbons do not have pattern and range consistent with typical petroleum products and may be due to biogenic interference.
D5	Detected hydrocarbons in the diesel range appear to be weathered diesel.
E	Estimated value.
ER	Elevated reporting limit due to matrix. Report limits (MDLs, MRLs & PQLs) are adjusted based on variations in sample preparation amounts, analytical dilutions, and percent solids, where applicable.
FC	Fecal Coliforms: Sample(s) received past 40 CFR Part 136 specified holding time. Results reported as estimated values.
G1	The gasoline elution pattern for the sample is not typical.
G2	The sample appears to be a heavier hydrocarbon range than gasoline.
G3	The sample appears to be a lighter hydrocarbon range than gasoline.
G4	Detected hydrocarbons in the gasoline range appear to be weathered gasoline.
HP	Sample re-analysis performed outside of method specified holding time.
HR	Sample received outside of method specified holding time.
HS	Sample analyzed for volatile organics contained headspace.
HT	At the client's request, the sample was analyzed outside of method specified holding time.
H	Analysis performed outside of method specified holding time.
J	Analyte detected below the Minimum Reporting Limit (MRL) and above the Method Detection Limit (MDL). The J flag result is an estimated value and the user should be aware that this data is of limited reliability.
MI	Surrogate or Matrix Spike recovery is out of control limits due to matrix interference. Sample results may be biased.
N	See Case Narrative on page 2 of report.
Q	Closing continuing calibration verification (CCV) or laboratory control sample (LCS) exceeded high recovery limits, but associated samples are non-detect and the sample results are not affected. Data meets EPA/NELAP requirements.
R	Relative percent difference (RPD) is outside of the accepted recovery limits.
R1	Relative percent difference (RPD) is outside of the accepted recovery limits. However, analyses are not controlled on RPD values for sample concentrations that are less than the reporting limit.
R3	The relative percent difference (RPD) and/or percent recovery for the duplicate (DUP) or matrix spike (MS)/matrix spike duplicate (MSD) cannot be accurately calculated due to the concentration of analyte already present in the sample.
R4	Duplicate analysis failed due to result being at or near method reporting limit.
S	Surrogate and/or matrix spike recovery is outside of the accepted recovery limits. Sample results may be biased.
S1	Surrogate or matrix spike recovery is outside of control limits due to dilution necessary for analysis.
SC	Sub-contracted to another laboratory for analysis.
SP	Sample(s) were not collected per EPA Method 5035A protocols. The results are considered minimum values.
T	Toxicity Characteristic Leaching Procedure – Sample submitted contained < 0.5% solids. If the waste contains <0.5% dry solids, the liquid portion of the waste, after filtration, is defined as the TCLP extract.
#	Value exceeds regulatory level for TCLP contaminant.
X1	The motor oil elution pattern for the sample is not typical.
X2	The sample appears to be a heavier hydrocarbon range than motor oil.
X3	The sample appears to be a lighter hydrocarbon range than motor oil.
*	Value exceeds Maximum Contaminant Level or is outside the acceptable range.

NRC SOP QA-1104/AD-3100  
Revision 3  
Effective Date: 6/3/16

CLIENT: Medford School District  
 Work Order: 1608819  
 Project: 16-04 SMHS Lead Study

**ANALYTICAL QC SUMMARY REPORT**

TestCode: ICPMS\_200.8\_SCHOOL

Sample ID: <b>MB-36259</b>	SampType: <b>MBLK</b>	TestCode: <b>ICPMS_200.8</b>	Units: <b>mg/L</b>	Prep Date: <b>8/16/2016</b>	RunNo: <b>89252</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>36259</b>	TestNo: <b>EPA 200.8</b>	( <b>EPA 200.8</b> )	Analysis Date: <b>8/16/2016</b>	SeqNo: <b>1346384</b>						
Analyte	Result	MRL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead ND 0.000100

Sample ID: <b>MB-36263</b>	SampType: <b>MBLK</b>	TestCode: <b>ICPMS_200.8</b>	Units: <b>mg/L</b>	Prep Date: <b>8/16/2016</b>	RunNo: <b>89252</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>36263</b>	TestNo: <b>EPA 200.8</b>	( <b>EPA 200.8</b> )	Analysis Date: <b>8/16/2016</b>	SeqNo: <b>1346384</b>						
Analyte	Result	MRL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead ND 0.000103

Sample ID: <b>LCS-36259</b>	SampType: <b>LCS</b>	TestCode: <b>ICPMS_200.8</b>	Units: <b>mg/L</b>	Prep Date: <b>8/16/2016</b>	RunNo: <b>89252</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>36259</b>	TestNo: <b>EPA 200.8</b>	( <b>EPA 200.8</b> )	Analysis Date: <b>8/16/2016</b>	SeqNo: <b>1346365</b>						
Analyte	Result	MRL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 0.1023 0.000100 0.1 0 102 85 115

Sample ID: <b>LCS-36263</b>	SampType: <b>LCS</b>	TestCode: <b>ICPMS_200.8</b>	Units: <b>mg/L</b>	Prep Date: <b>8/16/2016</b>	RunNo: <b>89252</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>36263</b>	TestNo: <b>EPA 200.8</b>	( <b>EPA 200.8</b> )	Analysis Date: <b>8/16/2016</b>	SeqNo: <b>1346385</b>						
Analyte	Result	MRL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 0.1057 0.000104 0.1 0 106 85 115

Sample ID: <b>1608809-03AMS</b>	SampType: <b>MS</b>	TestCode: <b>ICPMS_200.8</b>	Units: <b>mg/L</b>	Prep Date: <b>8/16/2016</b>	RunNo: <b>89252</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>36259</b>	TestNo: <b>EPA 200.8</b>	( <b>EPA 200.8</b> )	Analysis Date: <b>8/16/2016</b>	SeqNo: <b>1346368</b>						
Analyte	Result	MRL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 0.1062 0.000100 0.1 0.004275 102 70 130

**Qualifiers:** E Value above quantitation range H Holding times for preparation or analysis exceeded J Analyte detected below quantitation limits  
 ND Not Detected at the Minimum Reporting Limit R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

**CLIENT:** Medford School District  
**Work Order:** 1608819  
**Project:** 16-04 SMHS Lead Study

**ANALYTICAL QC SUMMARY REPORT**

**TestCode: ICPMS\_200.8\_SCHOOL**

Sample ID: <b>1608817-03AMS</b>	SampType: <b>MS</b>	TestCode: <b>ICPMS_200.8</b>	Units: <b>mg/L</b>	Prep Date: <b>8/16/2016</b>	RunNo: <b>89252</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>36263</b>	TestNo: <b>EPA 200.8</b>	<b>(EPA 200.8)</b>	Analysis Date: <b>8/16/2016</b>	SeqNo: <b>1346404</b>						
Analyte	Result	MRL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	0.1050	0.000104	0.1	0.001084	104	70	130				
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Sample ID: <b>1608809-03AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>ICPMS_200.8</b>	Units: <b>mg/L</b>	Prep Date: <b>8/16/2016</b>	RunNo: <b>89252</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>36259</b>	TestNo: <b>EPA 200.8</b>	<b>(EPA 200.8)</b>	Analysis Date: <b>8/16/2016</b>	SeqNo: <b>1346369</b>						
Analyte	Result	MRL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	0.1073	0.000100	0.1	0.004275	103	70	130	0.1062	1.03	20	
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Sample ID: <b>1608817-03AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>ICPMS_200.8</b>	Units: <b>mg/L</b>	Prep Date: <b>8/16/2016</b>	RunNo: <b>89252</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>36263</b>	TestNo: <b>EPA 200.8</b>	<b>(EPA 200.8)</b>	Analysis Date: <b>8/16/2016</b>	SeqNo: <b>1346405</b>						
Analyte	Result	MRL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	0.1066	0.000104	0.1	0.001084	106	70	130	0.105	1.47	20	
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**Qualifiers:** E Value above quantitation range      H Holding times for preparation or analysis exceeded      J Analyte detected below quantitation limits  
 ND Not Detected at the Minimum Reporting Limit      R RPD outside accepted recovery limits      S Spike Recovery outside accepted recovery limits



