## **Analytical Laboratory Report**

January 08, 2013

Report ID: 9540049

SCOTT CLARK IPEN 31 BROOKSTONE PLACE CANDLER NC 28715

Company Number:

33014

### IPEN UNEP 9 COUNTRY PAINT LEAD PROJECT

CHILE

Date Collected:

12/19/2012

Date Received:

1/2/2013

Date of Analysis:

1/4/2013

Date Reported:

1/8/2013

Analyst:

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If you have any questions regarding this report please feel free to contact the laboratory via email (as listed above) or via telephone at 800-446-0403

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# **Analytical Results**

LAB NUMBER		Tanaly trout acoustics	AIR VOLUME
1565885 CHL-01 Lead	PAINT CHIP	<15 ppm	
1565886 CHL-02 Lead	PAINT CHIP	28 ppm	
1565887 CHL-03 Lead	PAINT CHIP	ND <5.0 ppm	
1565888 CHL-04 Lead	PAINT CHIP	ND <5.0 ppm	
1565889 CHL-05 Lead	PAINT CHIP	1100 ppm	
1565890 CHL-06 Lead	PAINT CHIP	ND <5.0 ppm	
1565891 CHL-07 Lead	PAINT CHIP	ND <5.0 ppm	
1565892 CHL-08 Lead	PAINT CHIP	ND <5.0 ppm	
1565893 CHL-09 Lead	PAINT CHIP	ND <5.0 ppm	
1565894 CHL-10 Lead	PAINT CHIP Quality Control	Net Paul From Chile 26000 ppm	
1565895 CHL-11 Lead	PAINT CHIP	<15 ppm	
1565896 CHL-12 Lead	PAINT CHIP	ND <5.0 ppm	

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# **Analytical Results**

LAB NUMBER FIELD NUMBER	DESCRIPTION	AIR VOLUME
1565897 CHL-13 Lead	PAINT CHIP	ND <5.0 ppm
1565898 CHL-14 Lead	PAINT CHIP	ND <5.0 ppm
1565899 CHL-15 Lead	PAINT CHIP	ND <5.0 ppm
1565900 CHL-16 Lead	PAINT CHIP	ND <5.0 ppm
1565901 CHL-17 Lead	PAINT CHIP	ND <5.0 ppm
1565902 CHL-18 Lead	PAINT CHIP	<15 ppm
1565903 CHL-19 Lead	PAINT CHIP	<15 ppm
1565904 CHL-20 Lead	PAINT CHIP	ND <5.0 ppm
1565905 CHL-21 Lead	PAINT CHIP	<15 ppm
1565906 CHL-22 Lead	PAINT CHIP	ND <5.0 ppm
1565907 CHL-23 Lead	PAINT CHIP	<15 ppm
1565908 CHL-24 Lead	PAINT CHIP	ND <5.0 ppm

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Displayed values on report have been rounded; however all calculations are performed using raw, unrounded intermediate results. Please contact the laboratory if you have any questions regarding our result calculation or rounding. All samples were received by the laboratory in acceptable condition unless otherwise noted.

ND: None Detected. Results are less than the method detection limit

<: Less Than. The analyte, if present, is at a level too low to be accurately quantitated by the method used. The actual amount is less than the reported value.

### **Analytical Methodology**

#### LEAD IN PAINT CHIPS BY EPA SW846 3050B:

Collection: Samples are obtained by scraping the paint off the wood pieces received. The paint is then weighed into a hot block digestion tube.

Preparation: The paint chips are digested by EHD METALS METHOD 750.1 rev.2 based on EPA method SW846 3050B. Due to limited sample, only 0.04 grams are weighed, and the final volume is 20 mL. Nitric acid is added to the paint sample and is refluxed at 95 degrees celsius on a hot block. After the sample is allowed to cool, hydrogen peroxide is added in multiple aliquots. After the peroxide additions, the sample is refluxed again. The sample is cooled and hydrochloric acid is added, and a final reflux is performed. Once the sample cools, it is brought to a final volume.

Analysis: Lead in the digestates is analyzed by in-house method EHD METALS METHOD 400.2 rev.3 based on EPA 200.7 and SW846 6010B. It is analyzed by an Inductively Coupled Argon Plasma Optical Emission Spectrometer (ICP-OES).

Results: The sample results are expressed as parts per million, based on the weight of the sample digested.

#### REPORTING LIMITS:

This table contains the WOHL determined reporting limits for the compounds specified in this report. These numbers are based on the historical statistical data for a particular analyte or are based on WOHL determined values. If no value appears for an analyte in the table, the RL value is the same as the previous value.

Analyte
Lead on PAINT CHIP

Reporting Limit
15 ppm

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## **Analytical Quality Control**

Laboratory prepared quality control (QC) samples were analyzed along with the samples included in the analytical report. The analysis results for these QC samples are listed below.

Instrument Used for Analysis:

Perkin Elmer ICP

**Laboratory Control Sample:** 

152227

QC Sample Media: Paint

Analyte

Analyte

**Target Value** 

Recovery (%)

Acceptable Recovery (%)

Pass/Fail

Lead paint block digestion

9.99%

99.1

85 - 115

**PASS** 

**Laboratory Control Sample:** 

QC Sample Media: Paint

152228

**Target Value** 

Recovery (%)

Acceptable

Pass/Fail

Lead paint block digestion

4.34 %

98.4

Recovery (%) 85 - 115

**PASS** 

The acceptable range for an analyte is based on the standard deviation of each analyte, which has been determined from statistical evaluation of the historical performance of the assay. The acceptable range includes up to 3 standard deviations, so a result within 3 standard deviations is considered to have passed the QC requirements. A result outside of the acceptable range is considered to have failed QC and may indicate the direction of possible bias for the samples included in the analytical report. The analytes used for QC determination will not always be the same analytes that appear in the samples for the report, however they are representative of the compounds found in the samples and indicative of overall assay performance.

## **End of Analytical Report**

The results in this report apply only to the samples, specifically listed above, tested at the Wisconsin Occupational Health Laboratory . This report is not to be reproduced except in full.

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