



REPORTED: February 2, 2018

PROJECT NO.: SMSD-17-7239

CLIENT: Santa Monica Malibu Unified School District
Facilities Improvement Projects
2828 4th Street
Santa Monica, California 90405

ATTENTION: Facilities Improvement Projects

REF: Ambient Air Sampling Polychlorinated Biphenyls (PCBs)
Malibu High School Building D- Classrooms 200, 201, 202, and 213

1 INTRODUCTION

1.1 Background

Alta Environmental (Alta) was retained by Santa Monica Malibu Unified School District (SMMUSD) to conduct ambient air sampling for the presence of polychlorinated biphenyls (PCBs) at Malibu High School located at 30215 Morning View Drive in Malibu, California (Site). The ambient air sampling was conducted on January 27, 2017 to January 28, 2017 by Fabian Ruvalcaba and Scott Fan, employed by Alta.

1.2 Objectives

The air sampling was conducted to determine, within the limitations of the analytical methodology, airborne concentrations of PCBs in the subject classrooms.

1.3 Scope of Services

Alta conducted ambient air monitoring at the Site for a 24-hour period to determine airborne concentrations of PCBs in the subject classrooms and compare those findings to the EPA's Exposure Levels for Evaluating PCBs in School Indoor Air (ng/m³) Age Range: 15- 19<yr (high school).

2 ANALYTICAL AND FIELD METHODOLOGIES

2.1 Activities

Alta collected five PCB samples in the following classrooms 200, 201, 202, and 213. All samples were collected near the center of classrooms and in breathing zone height. Sampling was conducted with the lighting locked-on (light on) and the air conditioning locked-off for the duration of the sampling. Lighting was locked-on and the air conditioning was locked-off by SMMUSD mechanical technicians.

Alta Environmental

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2.2 Analytical Methodology

Air samples were collected without a pre-filter and were analyzed for Aroclors on a polyurethane foam cartridge with a constant flow rate of approximately 5 liters per minute. Air samples were collected in the breathing zone height using a tripod. A quality control field blank accompanied these samples to the laboratory and was analyzed with the exposed samples. Samples were analyzed using EPA Method T0-10A, after extraction compounds are introduced into a gas chromatograph utilizing an Electron Capture Detector (ECD).

Analysis of the samples was conducted at ALS Environmental, Salt Lake City, Utah, an AIHA-LAP and NELAC accredited laboratory.

3 AMBIENT AIR EXPOSURE SAMPLE RESULTS

To calculate the exposure levels for evaluating PCBs in indoor school air, Federal EPA made the following assumptions:

- PCB concentrations in dust and soils in and around schools are the same as in average homes or other buildings without elevated PCBs.
- Adults and children less than three years old are in school for 8 hours per day; all other children are in school for six and a half hours per day
- Adults and children less than three years old are in school 185 days per year. All other children are in school for 180 days.

Results of the samples collected from the Site during our investigation are presented in the table below.

Sample Number/Location	Analyte Aroclor ⁽¹⁾	Results: nanograms per cubic meter of air (ng/m ³)	Exposure levels for evaluating PCBs (Age: 15-19<yr) in school indoor air (ng/m ³)	Exceeds Exposure Level?
MHS-01 Classroom 200	Aroclor 1121	<28	600	No
	Aroclor 1232	<14	600	No
	Aroclor 1016	<14	600	No
	Aroclor 1242	<14	600	No
	Aroclor 1248	<14	600	No
	Aroclor 1254	<14	600	No
	Aroclor 1260	<14	600	No
	Aroclor 1262	<14	600	No
	Aroclor 1268	<14	600	No

Sample Number/Location	Analyte Aroclor ⁽¹⁾	Results: nanograms per cubic meter of air (ng/m ³)	Exposure levels for evaluating PCBs (Age: 15-19<yr) in school indoor air (ng/m ³)	Exceeds Exposure Level?
MHS-02 Classroom 201	Aroclor 1121	<28	600	No
	Aroclor 1232	<14	600	No
	Aroclor 1016	<14	600	No
	Aroclor 1242	<14	600	No
	Aroclor 1248	<14	600	No
	Aroclor 1254	<14	600	No
	Aroclor 1260	<14	600	No
	Aroclor 1262	<14	600	No
	Aroclor 1268	<14	600	No

Sample Number/Location	Analyte Aroclor ⁽¹⁾	Results: nanograms per cubic meter of air (ng/m ³)	Exposure levels for evaluating PCBs (Age: 15-19<yr) in school indoor air (ng/m ³)	Exceeds Exposure Level?
MHS-03 Classroom 202	Aroclor 1121	<28	600	No
	Aroclor 1232	<14	600	No
	Aroclor 1016	<14	600	No
	Aroclor 1242	<14	600	No
	Aroclor 1248	<14	600	No
	Aroclor 1254	<14	600	No
	Aroclor 1260	<14	600	No
	Aroclor 1262	<14	600	No
	Aroclor 1268	<14	600	No

Sample Number/Location	Analyte Aroclor ⁽¹⁾	Results: nanograms per cubic meter of air (ng/m ³)	Exposure levels for evaluating PCBs (Age: 15-19<yr) in school indoor air (ng/m ³)	Exceeds Exposure Level?
MHS-04 Classroom 213	Aroclor 1121	<28	600	No
	Aroclor 1232	<14	600	No
	Aroclor 1016	<14	600	No
	Aroclor 1242	<14	600	No
	Aroclor 1248	<14	600	No
	Aroclor 1254	<14	600	No
	Aroclor 1260	<14	600	No
	Aroclor 1262	<14	600	No
Aroclor 1268	<14	600	No	

Sample Number/Location	Analyte Aroclor ⁽¹⁾	Results: nanograms per cubic meter of air (ng/m ³)	Exposure levels for evaluating PCBs (Age: 15-19<yr) in school indoor air (ng/m ³)	Exceeds Exposure Level?
MHS-05B Field Blank	Aroclor 1121	N/A	600	N/A
	Aroclor 1232	N/A	600	N/A
	Aroclor 1016	N/A	600	N/A
	Aroclor 1242	N/A	600	N/A
	Aroclor 1248	N/A	600	N/A
	Aroclor 1254	N/A	600	N/A
	Aroclor 1260	N/A	600	N/A
	Aroclor 1262	N/A	600	N/A
Aroclor 1268	N/A	600	N/A	

1) An Aroclor is the tradename for a specific PCB mixture.

The laboratory reports, chain-of-custody documents, and project notes are provided as attachments.

4 DISCUSSION

Air samples were collected in the breathing zone and near the center of each classroom. Prior to, and after the sampling, Alta observed no abnormalities had occurred during the sampling. At the start and end of survey, Alta noted that there was no change in classroom conditions from start to finish.

Please note that the samples collected are representative of the conditions during the time of the sampling.

5 CONCLUSIONS

None of the target Aroclors were detected in any of the samples collected. The results were reported to be below the EPA's Exposure Levels for Evaluating PCBs in School Indoor Air (ng/m³) Age: 15- 19<yr (high school) of 600 ng/m³.

<https://www.epa.gov/pcbs/exposure-levels-evaluating-polychlorinated-biphenyls-pcbs-indoor-school-air>.

The criteria are as follows:

Age in Years Range	1 to <2	2 to <3	3 to <6	6 to <12	12 to <15	15to <19	19 +
PCBs ng/m ³	100	100	200	300	500	600	500

6 RECOMMENDATIONS

The EPA recommends that concentrations of PCBs in indoor air be kept as low possible and that the total PCB exposure be maintained below the oral reference dose (RfD) level of 20 ng of PCBs per kilogram of body weight per day (ng PCB/kg body weight). A RfD is an estimate of daily exposure to the human population (i.e., sensitive subgroups) that is likely to be without an appreciable risk of harmful effects during a life time. The referenced airborne exposure levels are calculated in conjunction with the RfD assuming the exposure through pathways, other than air, are equal to the average exposures for other pathways.

7 ASSUMPTIONS AND LIMITATIONS

This report was prepared exclusively for use by Santa Monica Malibu Unified School District, and may not be relied upon by any other person or entity without Alta Environmental's express written permission. The information, conclusions and recommendations described in this report apply to conditions existing at certain locations when services were performed and are intended only for the specific purposes, locations, time frames and project parameters indicated. Alta Environmental cannot be responsible for the impact of any changes in environmental standards, practices or regulations after performance of services.

In performing our professional services, we have applied present engineering and scientific judgment and used a level of effort consistent with the current standard of practice for similar types of studies.

As applicable, Alta Environmental has relied in good faith upon representations and information furnished by individuals with respect to operations and existing property conditions, to the extent that they have not been contradicted by data obtained from other sources. Accordingly, Alta Environmental accepts no responsibility for any deficiencies, omissions, misrepresentations, or fraudulent acts of persons interviewed.

Alta Environmental will not accept any liability for loss, injury claim, or damage arising directly or indirectly from any use or reliance on this report. Alta Environmental makes no warranty, expressed or implied.

This report is issued with the understanding that the client, the property owner, or its representative is responsible for ensuring that the information, conclusions, and recommendations contained herein are brought to the attention of the appropriate regulatory agencies, as required.

Alta Environmental' s investigation and the conclusions and recommendations generated as a result reflect a subjective evaluation of limited data and thus may not be representative of all conditions present at the site. If you have any questions, please feel free to call the undersigned at (562) 495-5777.

8 SIGNATORY

Respectfully submitted by:

Alta Environmental



Scott Fan
Industrial Hygiene Specialist I

Reviewed by:

Alta Environmental



David Schack
Vice-President, Building Sciences

Attachments: Laboratory Report, Chain-of-Custody Document and Alta Field Notes

Attachments

Laboratory Report, Chain-of-Custody Document, Alta Field Notes



ANALYTICAL REPORT

Report Date: February 02, 2018

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ALTA Environmental
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Long Beach, CA 90807

Phone: (562) 495-5777

E-mail: david.schack@altaenviron.com

Workorder: **34-1803055**

Project ID: MHS-Building D 012718

Purchase Order: SMSO-17-7239

Project Manager Paul E. Pope

Client Sample ID	Lab ID	Collect Date	Receive Date	Sampling Site
MHS 01	1803055001	01/27/18	01/30/18	Building D
MHS 02	1803055002	01/27/18	01/30/18	Building D
MHS 03	1803055003	01/27/18	01/30/18	Building D
MHS 04	1803055004	01/27/18	01/30/18	Building D
MHS 05B	1803055005	01/27/18	01/30/18	Building D

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ANALYTICAL REPORT

Workorder: **34-1803055**

Client: ALTA Environmental

Project Manager: Paul E. Pope

Analytical Results

Sample ID: MHS 01	Sampling Site: Building D	Collected: 01/27/2018
Lab ID: 1803055001	Media: PUF Tube	Received: 01/30/2018
Matrix: Air	Sampling Parameter: Air Volume 7214.4 L	

Analysis Method - EPA TO-10A, PCBs

Preparation: EPA 3540 Soxhlet Ext., EPA TO-10A	<u>Weight/Volume</u>	Analysis: EPA TO-10A, PCBs Air	Instrument ID: GCE03
Batch: ENVX/26128 (HBN: 207681)	Initial: 1 filter	Batch: EGC/7152 (HBN: 207789)	Percent Solid: NA
Prepared: 01/31/2018	Final: 10 mL	Analyzed: 01/31/2018 00:00	Report Basis: Wet

Analyte	Result (ug/sample)	Result (ng/m ³)	RL (ug/sample)	Dilution	Qual
Aroclor 1221	ND	<28	0.20	1	
Aroclor 1232	ND	<14	0.10	1	
Aroclor 1016	ND	<14	0.10	1	
Aroclor 1242	ND	<14	0.10	1	
Aroclor 1248	ND	<14	0.10	1	
Aroclor 1254	ND	<14	0.10	1	
Aroclor 1260	ND	<14	0.10	1	
Aroclor 1262	ND	<14	0.10	1	
Aroclor 1268	ND	<14	0.10	1	

Sample ID: MHS 02	Sampling Site: Building D	Collected: 01/27/2018
Lab ID: 1803055002	Media: PUF Tube	Received: 01/30/2018
Matrix: Air	Sampling Parameter: Air Volume 7178.4 L	

Analysis Method - EPA TO-10A, PCBs

Preparation: EPA 3540 Soxhlet Ext., EPA TO-10A	<u>Weight/Volume</u>	Analysis: EPA TO-10A, PCBs Air	Instrument ID: GCE03
Batch: ENVX/26128 (HBN: 207681)	Initial: 1 filter	Batch: EGC/7152 (HBN: 207789)	Percent Solid: NA
Prepared: 01/31/2018	Final: 10 mL	Analyzed: 01/31/2018 00:00	Report Basis: Wet

Analyte	Result (ug/sample)	Result (ng/m ³)	RL (ug/sample)	Dilution	Qual
Aroclor 1221	ND	<28	0.20	1	
Aroclor 1232	ND	<14	0.10	1	
Aroclor 1016	ND	<14	0.10	1	
Aroclor 1242	ND	<14	0.10	1	
Aroclor 1248	ND	<14	0.10	1	
Aroclor 1254	ND	<14	0.10	1	
Aroclor 1260	ND	<14	0.10	1	
Aroclor 1262	ND	<14	0.10	1	
Aroclor 1268	ND	<14	0.10	1	



ANALYTICAL REPORT

Workorder: **34-1803055**

Client: ALTA Environmental

Project Manager: Paul E. Pope

Analytical Results

Sample ID: MHS 03	Sampling Site: Building D	Collected: 01/27/2018
Lab ID: 1803055003	Media: PUF Tube	Received: 01/30/2018
Matrix: Air	Sampling Parameter: Air Volume 7113.6 L	

Analysis Method - EPA TO-10A, PCBs

Preparation: EPA 3540 Soxhlet Ext., EPA TO-10A	<u>Weight/Volume</u>	Analysis: EPA TO-10A, PCBs Air	Instrument ID: GCE03
Batch: ENVX/26128 (HBN: 207681)	Initial: 1 filter	Batch: EGC/7152 (HBN: 207789)	Percent Solid: NA
Prepared: 01/31/2018	Final: 10 mL	Analyzed: 01/31/2018 00:00	Report Basis: Wet

Analyte	Result (ug/sample)	Result (ng/m ³)	RL (ug/sample)	Dilution	Qual
Aroclor 1221	ND	<28	0.20	1	
Aroclor 1232	ND	<14	0.10	1	
Aroclor 1016	ND	<14	0.10	1	
Aroclor 1242	ND	<14	0.10	1	
Aroclor 1248	ND	<14	0.10	1	
Aroclor 1254	ND	<14	0.10	1	
Aroclor 1260	ND	<14	0.10	1	
Aroclor 1262	ND	<14	0.10	1	
Aroclor 1268	ND	<14	0.10	1	

Sample ID: MHS 04	Sampling Site: Building D	Collected: 01/27/2018
Lab ID: 1803055004	Media: PUF Tube	Received: 01/30/2018
Matrix: Air	Sampling Parameter: Air Volume 7128 L	

Analysis Method - EPA TO-10A, PCBs

Preparation: EPA 3540 Soxhlet Ext., EPA TO-10A	<u>Weight/Volume</u>	Analysis: EPA TO-10A, PCBs Air	Instrument ID: GCE03
Batch: ENVX/26128 (HBN: 207681)	Initial: 1 filter	Batch: EGC/7152 (HBN: 207789)	Percent Solid: NA
Prepared: 01/31/2018	Final: 10 mL	Analyzed: 01/31/2018 00:00	Report Basis: Wet

Analyte	Result (ug/sample)	Result (ng/m ³)	RL (ug/sample)	Dilution	Qual
Aroclor 1221	ND	<28	0.20	1	
Aroclor 1232	ND	<14	0.10	1	
Aroclor 1016	ND	<14	0.10	1	
Aroclor 1242	ND	<14	0.10	1	
Aroclor 1248	ND	<14	0.10	1	
Aroclor 1254	ND	<14	0.10	1	
Aroclor 1260	ND	<14	0.10	1	
Aroclor 1262	ND	<14	0.10	1	
Aroclor 1268	ND	<14	0.10	1	



ANALYTICAL REPORT

Workorder: **34-1803055**

Client: ALTA Environmental

Project Manager: Paul E. Pope

Analytical Results

Sample ID: MHS 05B	Sampling Site: Building D	Collected: 01/27/2018
Lab ID: 1803055005	Media: PUF Tube	Received: 01/30/2018
Matrix: Air	Sampling Parameter: NA	

Analysis Method - EPA TO-10A, PCBs

Preparation: EPA 3540 Soxhlet Ext., EPA TO-10A	<u>Weight/Volume</u>	Analysis: EPA TO-10A, PCBs Air	Instrument ID: GCE03
Batch: ENVX/26128 (HBN: 207681)	Initial: 1 filter	Batch: EGC/7152 (HBN: 207789)	Percent Solid: NA
Prepared: 01/31/2018	Final: 10 mL	Analyzed: 01/31/2018 00:00	Report Basis: Wet

Analyte	Result (ug/sample)	Result (ng/m ³)	RL (ug/sample)	Dilution	Qual
Aroclor 1221	ND	NA	0.20	1	
Aroclor 1232	ND	NA	0.10	1	
Aroclor 1016	ND	NA	0.10	1	
Aroclor 1242	ND	NA	0.10	1	
Aroclor 1248	ND	NA	0.10	1	
Aroclor 1254	ND	NA	0.10	1	
Aroclor 1260	ND	NA	0.10	1	
Aroclor 1262	ND	NA	0.10	1	
Aroclor 1268	ND	NA	0.10	1	

Comments

Sample: 1803055005

EPA TO-10A The solvent in sample 1803055005 evaporated during the extraction process. 100 mL of Ether/Hexane was added to sample to recover some analytes.

Quality Control: EPA TO-10A, PCBs - (HBN: 207789)

Surrogate recoveries for sample 1803055005 were outside of QC limits. NCCAR #1436 was issued.

Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Method	Analyst	Peer Review
EPA TO-10A, PCBs	/S/ Mila V. Potekhin 02/01/2018 16:03	/S/ Lyle Edwards 02/02/2018 09:10

Laboratory Contact Information

ALS Environmental
960 W Levoy Drive
Salt Lake City, Utah 84123

Phone: (801) 266-7700
Email: als@alst.com
Web: www.alst.com



ANALYTICAL REPORT

Workorder: **34-1803055**

Client: ALTA Environmental

Project Manager: Paul E. Pope

General Lab Comments

The results provided in this report relate only to the items tested.
Samples were received in acceptable condition unless otherwise noted.
Samples have not been blank corrected unless otherwise noted.
This test report shall not be reproduced, except in full, without written approval of ALS.

ALS provides professional analytical services for all samples submitted. ALS is not in a position to interpret the data and assumes no responsibility for the quality of the samples submitted.

All quality control samples processed with the samples in this report yielded acceptable results unless otherwise noted.

ALS is accredited for specific fields of testing (scopes) in the following testing sectors. The quality system implemented at ALS conforms to accreditation requirements and is applied to all analytical testing performed by ALS. The following table lists testing sector, accreditation body, accreditation number and website. Please contact these accrediting bodies or your ALS project manager for the current scope of accreditation that applies to your analytical testing.

Testing Sector	Accreditation Body (Standard)	Certificate Number	Website
Environmental	ANAB (DoD ELAP)	ADE-1420	http://www.anab.org/accredited-organizations/
	Utah (NELAC)	DATA1	http://health.utah.gov/lab/labimp/
	Nevada	UT00009	http://ndep.nv.gov/bsdwlabservice.htm
	Oklahoma	UT00009	http://www.deq.state.ok.us/CSDnew/
	Iowa	IA# 376	http://www.iowadnr.gov/InsideDNR/RegulatoryWater.aspx
	Texas (TNI)	T104704456-11-1	http://www.tceq.texas.gov/field/qa/lab_accred_certif.html
	Washington	C596-16	http://www.ecy.wa.gov/programs/eap/labs/index.html
Industrial Hygiene	Kansas	E-10416	http://www.kdheks.gov/lipo/index.html
	AIHA LAP LLC (ISO 17025 & IHLAP/ELLAP)	101574	http://www.aihaaccreditedlabs.org
Lead Testing: CPSC	Washington	C596-16	http://www.ecy.wa.gov/programs/eap/labs/index.html
	AIHA LAP LLC (ISO 17025, CPSC)	ADE-1420	http://www.anab.org/accredited-organizations/
Soil, Dust, Paint ,Air	AIHA LAP LLC (ISO 17025 & IHLAP/ELLAP)	101574	http://www.aihaaccreditedlabs.org
Dietary Supplements	ACLASS (ISO 17025)	ADE-1420	http://www.aiclasscorp.com

Result Symbol Definitions

MDL = Method Detection Limit, a statistical estimate of method/media/instrument sensitivity.
RL = Reporting Limit, a verified value of method/media/instrument sensitivity.
CRDL = Contract Required Detection Limit
Reg. Limit = Regulatory Limit.
ND = Not Detected, testing result not detected above the MDL or RL.
< This testing result is less than the numerical value.
** No result could be reported, see sample comments for details.

Qualifier Symbol Definitions

U = Qualifier indicates that the analyte was not detected above the MDL.
J = Qualifier Indicates that the analyte value is between the MDL and the RL. It is also used to indicate an estimated value for tentatively identified compounds in mass spectrometry where a 1:1 response is assumed.
B = Qualifier indicates that the analyte was detected in the blank.
E = Qualifier indicates that the analyte result exceeds calibration range.
P = Qualifier indicates that the RPD between the two columns is greater than 40%.



Quality Control Sample Batch Report

Analysis Information

Workorder: 1803055

Limits: Historical/Performance

Basis: ALS Laboratory Group

Preparation: EPA 3540 Soxhlet Ext., EPA TO-10A

Batch: ENVX/26128 (HBN: 207681)

Prepared By: Xiao Y Chiang

Analysis: EPA TO-10A, PCBs

Batch: EGC/7152 (HBN: 207789)

Analyzed By: Mila V. Potekhin

Blank

MB: 585434			
Analyzed: 01/31/2018 00:00			
Units: ug/sample			
Analyte	Result	MDL	RL
Aroclor 1221	ND	NA	0.200
Aroclor 1232	ND	NA	0.100
Aroclor 1016	ND	NA	0.100
Aroclor 1242	ND	NA	0.100
Aroclor 1248	ND	NA	0.100
Aroclor 1254	ND	NA	0.100
Aroclor 1260	ND	NA	0.100
Aroclor 1262	ND	NA	0.100
Aroclor 1268	ND	NA	0.100

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 585435					LCSD: 585436				
Analyzed: 01/31/2018 00:00					Analyzed: 01/31/2018 00:00				
Dilution: 1					Dilution: 1				
Units: ug/sample					Units: ug/sample				
Analyte	Result	Target	% Rec	QC Limits	Result	% Rec	RPD	QC Limits	
Aroclor 1221	3.67	4.00	91.8	58.8 112.4	3.76	94.0	2.42	0.0 20.0	
Aroclor 1232	3.68	4.00	92.0	70.6 106.9	3.74	93.5	1.62	0.0 20.0	
Aroclor 1016	3.47	4.00	86.8	44.8 124.5	3.57	89.3	2.84	0.0 20.0	
Aroclor 1242	3.59	4.00	89.8	73.0 105.6	3.67	91.8	2.20	0.0 20.0	
Aroclor 1248	3.74	4.00	93.5	41.5 135.2	3.80	95.0	1.59	0.0 20.0	
Aroclor 1254	3.85	4.00	96.3	74.8 104.5	3.91	97.8	1.55	0.0 20.0	
Aroclor 1260	3.86	4.00	96.5	73.2 104.5	3.93	98.3	1.80	0.0 20.0	
Aroclor 1262	4.00	4.00	100	67.7 109.2	4.07	102	1.73	0.0 20.0	
Aroclor 1268	4.03	4.00	101	29.7 144.9	4.14	104	2.69	0.0 20.0	

Surrogate Recoveries

Surrogate	Tetrachloro-m-xylene		
QC Limits	70.0	130.0	
Units	ug/sample		
Lab ID	Result	Target	% Recovery
1803053004-FLDB	0.498	0.500	99.6
1803055005-FLDB	0.0828	0.500	* 16.6
585434-MB	0.492	0.500	98.4
1803055004	0.495	0.500	99.0
585435-LCS	0.487	0.500	97.4
1803053001	0.510	0.500	102
1803055002	0.512	0.500	102



Quality Control Sample Batch Report

Analysis Information

Workorder: 1803055

Limits: Historical/Performance

Basis: ALS Laboratory Group

Preparation: EPA 3540 Soxhlet Ext., EPA TO-10A

Batch: ENVX/26128 (HBN: 207681)

Prepared By: Xiao Y Chiang

Analysis: EPA TO-10A, PCBs

Batch: EGC/7152 (HBN: 207789)

Analyzed By: Mila V. Potekhin

Surrogate Recoveries

Surrogate	Tetrachloro-m-xylene		
QC Limits	70.0	130.0	
Units	ug/sample		
Lab ID	Result	Target	% Recovery
1803053003	0.502	0.500	100
1803053002	0.505	0.500	101
1803055001	0.494	0.500	98.8
585436-LCSD	0.493	0.500	98.6
1803055003	0.500	0.500	100

Comments

Surrogate recoveries for sample 1803055005 were outside of QC limits. NCCAR #1436 was issued.

QC Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Analyst	Peer Review
/S/ Mila V. Potekhin 02/01/2018 16:03	/S/ Lyle Edwards 02/02/2018 09:10

Symbols and Definitions

- * - Analyte above reporting limit or outside of control limits
- ▲ - Sample result is greater than 4 times the spike added
- - Sample and Matrix Duplicate less than 5 times the reporting limit
- - Result is above the calibration range
- # - The Matrix Spike, Matrix Spike duplicate or Matrix Duplicate is reported for your information only. The sample matrix may be inappropriate for the method selected.

- RPD - Relative % Difference (Spike / Spike Duplicate)
- ND - Not Detected (U - Qualifier also flags analyte as not detected)
- NA - Not Applicable
- QC results are not adjusted for moisture correction, where applicable



Air - Chain of Custody Record & Analytical Service Request

19011/#1



1803055

Requested Turnaround Time in Business Days (Surcharges) please circle 1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day-Standard	ALS Project No.
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Company Name & Address (Reporting Information) Alta Environmental 3777 Long Beach Boulevard, Annex Building Long Beach, CA 90807				Project Name MHS - Bulday D					ALS Contact:		Analysis Method EPA TO-10A (PCB)	Comments e.g. Actual Preservative or specific instructions
				Project Number SMSO-17-7239					Analysis Method			
Project Manager Cesar Ruvalcaba				P.O. # / Billing Information								
Phone 562-495-5777		Fax		Sampler (Print & Sign) Scott Fan / Feb on Ruvalcaba SF/FK								
Email Address for Result Reporting cesar.ruvalcaba@altaenviron.com												
Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID (Bar code # - AC, SC, etc.)	Flow Controller ID (Bar code # - FC #)	Canister Start Pressure "Hg	Canister End Pressure "Hg/psig	Sample Volume				
MHS01		11/27-2415	0900 0900						X	ice		
02		L	0902 0902						X	L		
03			0905 0905						X			
04			0907 0907						X			
05B			WT						X			
Reviewed. MHS05B as MHS05. changed to match distel on COC. 01/30/2018												

Report Tier Levels - please select Tier I - Results (Default if not specified) _____ Tier III (Results + QC & Calibration Summaries) _____ Tier II (Results + QC Summaries) <input checked="" type="checkbox"/> Tier IV (Data Validation Package) 10% Surcharge <input checked="" type="checkbox"/>								EDD required Yes / No _____ Type: _____ Units: _____		Chain of Custody Seal: (Circle) INTACT <input type="checkbox"/> BROKEN <input type="checkbox"/> ABSENT <input type="checkbox"/>		Project Requirements (MRLs, QAPP)	
Relinquished by: (Signature)		Date: 11/28/18		Time: 1500		Received by: (Signature)		Date: 1/29/18		Time: 2:25pm			
Relinquished by: (Signature)		Date: 1/29/18		Time: 3:30pm		Received by: (Signature)		Date:		Time:			
Cooler / Blank Temperature <u>7</u> °C													

01/30/2018 09:42

ORIGIN ID: LGBA (562) 495-5777
MARRISSA YAKUS
ALTA ENVIRONMENTAL
3777 LONG BEACH BOULEVARD
ANNEX BUILDING
LONG BEACH, CA 90807
UNITED STATES US

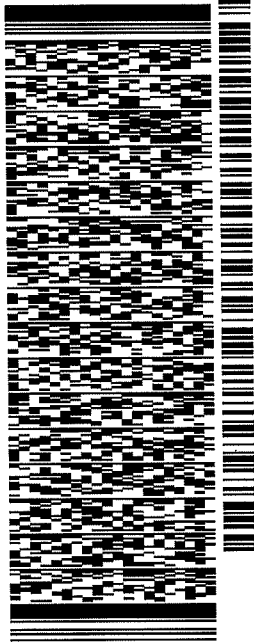
SHIP DATE: 29 JAN 18
ACTWGT: 27.00 LB
CAD: 101384718INNET3980
BILL SENDER

TO **SAMPLE RECEIVING**
ALS ENVIRONMENTAL
960 WEST LEVOY DRIVE

SALT LAKE CITY UT 84123

REF: SMSD-17-7261, SMSD-17-7239

PO: INV: DEPT:



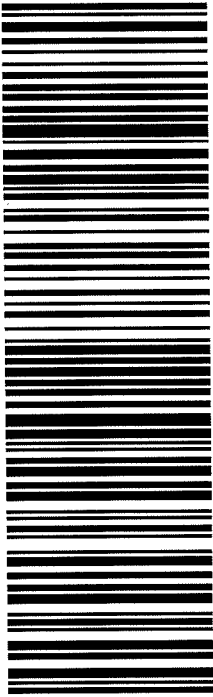
J181118012601uv

TRK# 7713 5271 1552
0201

TUE - 30 JAN 10:30A
PRIORITY OVERNIGHT

WLBTFA

84123
UT-US SLC



552J11/122D/DCA5

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