



July 16, 2013

Mr. Brandy Kadous
City of Tucson
Central Safety Services
255 W. Alameda 3 West
Tucson, AZ 85701

RE: Summary Report, Los Reales Land Fill Latex Processing Operation

Brandy,

ACT Environmental Inc., (AEI) performed exposure monitoring during latex paint processing at the Los Reales Landfill located at 5300 E. Los Reales Road, Tucson, Arizona. Latex paint contains low concentrations of volatile organic compounds (VOCs) and may contain trace levels of mercury.

This monitoring was performed as part a comprehensive employee exposure evaluation of the household hazardous waste program.

Monitoring was performed on June 7, 2013 inside the latex paint process area and at the north perimeter fence. Air samples were collected from the employee breathing zone while working inside the latex processing area and at a fixed sample location at the north perimeter fence. Air samples were collected during normal routine operations. The sampling was performed by a certified industrial hygienist. VOC sampling was performed in accordance with EPA TO-17 methods. EPA TO-17 is capable of evaluating 7,500 organic compounds. Mercury was analyzed using NIOSH method 6009. Sampling pumps were pre and post calibrated. Laboratory analysis was performed by the ALS laboratory group. ALS is an American Industrial Hygiene Association accredited laboratory (AIHA).

Work Description:

Latex paint is processed inside a metal building located near the entrance of the Los Reales Landfill. The building and process area is located south of the main landfill entrance and weigh station. Inside the process area, one gallon latex paint cans are poured into bulk 55 gallon drums. This is performed inside a metal building enclosure. Ventilation is provided to the area by means of a portable fan located at ground level. The empty latex cans are crushed on site. The crusher is located outside at the entrance to the metal building. One worker reported ill health effects during processing activities.

Results:

VOC's- The samples were analyzed for 7,500 individual organic compounds including 60 common compounds. Sample 1-6-7, (employee breathing zone) detected eight primary compounds. Airborne concentrations of these compounds were found to be 0.022 ppm propene, 0.049 ppm ethanol, 0.031 ppm isopropyl alcohol, 0.210 ppm acetone, 0.038 ppm 2- butanone (MEK), 0.047 ppm toluene, 0.023 ppm ethyl benzene and 0.063 ppm m, p xylene. The OSHA full shift permissible exposure limits for these VOC's are as follows; no exposure limit for propene, 1,000 ppm ethanol, 400 ppm isopropyl alcohol, 1,000 ppm acetone, 200 ppm 2- butanone (MEK), 200 ppm toluene, 100 ppm ethyl benzene and 100 ppm m, p xylene. Represented as a percentage of the OSHA PEL, the exposures were

found to be < 0.00063 % based on xylene as the highest relative value.

Sample 3-6-7, (collected at the north perimeter fence), detected six primary compounds. Airborne concentrations of these compounds were found to be 0.0049 ppm propene, 0.0023 ppm ethanol, 0.016 ppm acetone, 0.0024 ppm toluene, 0.0009 ppm ethyl benzene and 0.0029 ppm m, p xylene. Represented as a percentage of the OSHA PEL, the concentrations were found to be < 0.000029% based on xylene as the highest relative value.

Mercury- Sample 2-6-7, (employee breathing zone) indicated non detectable concentrations of mercury or <0.00024 mg/M³. Sample 4-6-7, (collected at the north perimeter fence) indicated non detectable concentrations of mercury or <0.00024 mg/M³. The OSHA full shift permissible exposure limits for mercury is 1.0 mg/M³. Represented as a percentage of the OSHA PEL, the concentrations were found to be < 0.0000024%.

Summary:

Employee occupation exposures to VOCs and mercury were found to be below all applicable exposure limits. The work area and surrounding areas are safe for employees and the public.

A copy of the laboratory report for the samples analysis is enclosed. If you have any questions concerning this report, please feel free to contact me at (520) 791-9029 ext 101.

Sincerely,



William F. Martin, Certified Industrial Hygienist

enclosures: Lab Analysis

Table 1 Air Sample Results Sample number/date	Employee/ Work Activities	Sample Date and Sample Period (minutes)	Results during the sampling period	OSHA PEL
1-6-7	Employee breathing zone Mr. James Cocker, RISE Contractor employee, processing latex paint, including bulk packaging and crushing empty cans	166	VOC included an evacuation of 7,500 VOC's Representative compounds include 0.022 ppm propene 0.049 ppm ethanol 0.031 ppm isopropyl alcohol 0.210 ppm acetone 0.038 ppm 2- butanone (MEK) 0.047 ppm toluene 0.023 ppm ethyl benzene 0.063 ppm m, p xylene	no standard 1,000 ppm 400 ppm 1,000 ppm 200 ppm 200 ppm 100 ppm 100 ppm
2-6-7	Employee breathing zone Mr. James Cocker, RISE Contractor employee, processing latex paint, including bulk packaging and crushing empty cans	166	<0.00024 mg/M ³ mercury	1.0 mg/M ³
3-6-7	North perimeter fence during processing latex paint, including bulk packaging and crushing empty cans	166	VOC included an evacuation of 7,500 VOC's Representative compounds include 0.004.9 ppm propene 0.0023 ppm ethanol 0.016 ppm acetone 0.0024 ppm toluene 0.0009 ppm ethyl benzene 0.0029 ppm m, p xylene	no standard 1,000 ppm 1,000 ppm 200 ppm 100 ppm 100 ppm
4-6-7	North perimeter fence during processing latex paint, including bulk packaging and crushing empty cans	166	<0.00024 mg/M ³ mercury	1.0 mg/M ³





ANALYTICAL REPORT

Report Date: June 18, 2013

Bill Martin
ACT Environmental Incorporated
7592 N. LaCholla Blvd.
Tucson, AZ 85741

Phone: 520 791-9029
Fax: 520 791-9062
E-mail: bfmartin@actenv.com

Workorder: **34-1316241**

Project ID: ACT Environmental Incorporated

Purchase Order: 26126

Client Sample ID	Lab ID	Collect Date	Receive Date	Sampling Site
1-6-7	1316241001	NA	06/11/13	
3-6-7	1316241002	NA	06/11/13	

ADDRESS 960 West LeVoy Drive, Salt Lake City, Utah, 84123 | PHONE +1 801 266 7700 | FAX +1 801 268 9992
ALS GROUP USA, CORP. Part of the ALS Group An ALS Limited Company

Environmental 

www.alsglobal.com

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ANALYTICAL REPORT

Workorder: **34-1316241**

Client: ACT Environmental
Incorporated

Project Manager: Rand Potter

Analytical Results

Sample ID: 1-6-7	Sampling Site: NA	Received: 06/11/2013
Lab ID: 1316241001	Media: Carbo Trap 300	
Matrix: Air	Sampling Parameter: Air Volume 8.3 L	

Analysis Method - EPA TO-17 Mod.

Preparation: Not Applicable	Analysis: EPA TO-17, Air Batch: IVOA/2301 (HBN: 108601) Analyzed: 06/17/2013 17:58	Instrument ID: 5972-X Percent Solid: NA Report Basis: Wet
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Analyte	ng/sample	ug/m ³	ppb	RL (ng/sample)	Dilution	Qual.
Propene	310	37	22	25	1	
Dichlorodifluoromethane	ND	<3.0	<0.61	25	1	
Chloromethane	ND	<3.0	<1.5	25	1	
Freon 114	ND	<3.0	<0.43	25	1	
Vinyl chloride	ND	<3.0	<1.2	25	1	
1,3-Butadiene	ND	<3.0	<1.4	25	1	
Bromomethane	ND	<3.0	<0.78	25	1	
Chloroethane	ND	<3.0	<1.1	25	1	
Ethanol	770	92	49	25	1	
Isopropyl alcohol	640	77	31	25	1	
Freon 11	ND	<3.0	<0.54	25	1	
Freon 113	ND	<3.0	<0.39	25	1	
Acetone	4200	500	210	25	1	E
Carbon disulfide	ND	<3.0	<0.97	25	1	
1,1-Dichloroethene	ND	<3.0	<0.76	25	1	
Methylene chloride	63	7.6	2.2	25	1	
trans-1,2-Dichloroethene	ND	<3.0	<0.76	25	1	
1,1-Dichloroethane	ND	<3.0	<0.74	25	1	
Methyl t-butyl ether	ND	<3.0	<0.84	25	1	
Vinyl acetate	ND	<3.0	<0.86	25	1	
2-Butanone	940	110	38	25	1	
cis-1,2-Dichloroethene	ND	<3.0	<0.76	25	1	
Ethyl acetate	ND	<3.0	<0.84	25	1	
Hexane	54	6.5	1.8	25	1	
Chloroform	ND	<3.0	<0.62	25	1	
Tetrahydrofuran	ND	<3.0	<1.0	25	1	
1,2-Dichloroethane	ND	<3.0	<0.74	25	1	
1,1,1-Trichloroethane	ND	<3.0	<0.55	25	1	
Benzene	34	4.1	1.3	25	1	
Carbon tetrachloride	ND	<3.0	<0.48	25	1	
1,2-Dichloropropane	ND	<3.0	<0.62	25	1	
Bromodichloromethane	ND	<3.0	<0.45	25	1	
Cyclohexane	ND	<3.0	<0.88	25	1	
Trichloroethene	ND	<3.0	<0.56	25	1	
Heptane	31	3.7	0.90	25	1	

Results Continued on Next Page



ANALYTICAL REPORT

Workorder: **34-1316241**

Client: ACT Environmental
Incorporated

Project Manager: Rand Potter

Analytical Results

Sample ID: 1-6-7	Sampling Site: NA	Received: 06/11/2013
Lab ID: 1316241001	Media: Carbo Trap 300	
Matrix: Air	Sampling Parameter: Air Volume 8.3 L	

Analysis Method - EPA TO-17 Mod.

Preparation: Not Applicable	Analysis: EPA TO-17, Air Batch: IVOA/2301 (HBN: 108601) Analyzed: 06/17/2013 17:58	Instrument ID: 5972-X Percent Solid: NA Report Basis: Wet
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Analyte	ng/sample	ug/m ³	ppb	RL (ng/sample)	Dilution	Qual.
cis-1,3-Dichloropropene	ND	<3.0	<0.66	25	1	
4-Methyl-2-pentanone	96	12	2.8	25	1	
trans-1,3-Dichloropropene	ND	<3.0	<0.66	25	1	
1,1,2-Trichloroethane	ND	<3.0	<0.55	25	1	
Toluene	1500	180	47	25	1	
2-Hexanone	ND	<3.0	<0.74	25	1	
Dibromochloromethane	ND	<3.0	<0.35	25	1	
Tetrachloroethene	ND	<3.0	<0.44	25	1	
1,2-Dibromoethane	ND	<3.0	<0.39	25	1	
Chlorobenzene	ND	<3.0	<0.65	25	1	
Ethylbenzene	810	98	23	25	1	
m,p-Xylene	2300	270	63	25	1	
Bromoform	ND	<3.0	<0.29	25	1	
Styrene	ND	<3.0	<0.71	25	1	
1,1,2,2-Tetrachloroethane	ND	<3.0	<0.44	25	1	
o-Xylene	870	100	24	25	1	
4-Ethyl toluene	510	62	13	25	1	
1,3,5-Trimethylbenzene	500	60	12	25	1	
1,2,4-Trimethylbenzene	1300	150	31	25	1	
1,3-Dichlorobenzene	ND	<3.0	<0.50	25	1	
1,4-Dichlorobenzene	ND	<3.0	<0.50	25	1	
Benzyl chloride	ND	<3.0	<0.58	25	1	
1,2-Dichlorobenzene	ND	<3.0	<0.50	25	1	
1,2,4-Trichlorobenzene	ND	<3.0	<0.41	25	1	
Hexachlorobutadiene	ND	<3.0	<0.28	25	1	

Analysis Method - EPA TO-17 Mod.

Preparation: Not Applicable	Analysis: EPA TO-17, Air Batch: IVOA/2301 (HBN: 108601) Analyzed: 06/17/2013 17:58	Instrument ID: 5972-X Percent Solid: NA Report Basis: Wet
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Tentatively Identified Compound	ng/sample	Retention Time	Dilution	Qual.
Cyclohexane, 1,2,4-trimethyl-	1100	13.44	1	J
Thiophene, 2-propyl-	1100	14.29	1	J
Nonane	3100	14.48	1	J
2-Hexene, 3,4,4-trimethyl-	1900	14.77	1	J
5-Methyl-5-octen-1-ol	2300	15.06	1	J

Results Continued on Next Page



ANALYTICAL REPORT

Workorder: **34-1316241**

Client: ACT Environmental
Incorporated

Project Manager: Rand Potter

Analytical Results

Sample ID: 1-6-7	Sampling Site: NA	Received: 06/11/2013
Lab ID: 1316241001	Media: Carbo Trap 300	
Matrix: Air	Sampling Parameter: Air Volume 8.3 L	

Analysis Method - EPA TO-17 Mod.				
Preparation: Not Applicable		Analysis: EPA TO-17, Air Batch: IVOA/2301 (HBN: 108601) Analyzed: 06/17/2013 17:58		Instrument ID: 5972-X Percent Solid: NA Report Basis: Wet
Tentatively Identified Compound	ng/sample	Retention Time	Dilution	Qual.
Cyclohexane, propyl-	3300	15.28	1	J
C10 Hydrocarbon	1200	15.48	1	J
Cyclohexane, 1,1,2,3-tetramethyl-	1200	15.99	1	J
Benzene, 1,2,3-trimethyl-	1500	17.06	1	J
Nonane, 2,6-dimethyl-	1300	17.14	1	J
C11 Hydrocarbon	1000	17.26	1	J
Cyclohexane, butyl-	1500	17.46	1	J
C11 Hydrocarbon	1200	17.58	1	J
Undecane	1900	18.58	1	J
Naphthalene	28	20.10	1	J

Sample ID: 3-6-7	Sampling Site: NA	Received: 06/11/2013
Lab ID: 1316241002	Media: Carbo Trap 300	
Matrix: Air	Sampling Parameter: Air Volume 8.3 L	

Analysis Method - EPA TO-17 Mod.						
Preparation: Not Applicable		Analysis: EPA TO-17, Air Batch: IVOA/2301 (HBN: 108601) Analyzed: 06/17/2013 18:42			Instrument ID: 5972-X Percent Solid: NA Report Basis: Wet	
Analyte	ng/sample	ug/m ³	ppb	RL (ng/sample)	Dilution	Qual.
Propene	70	8.4	4.9	25	1	
Dichlorodifluoromethane	ND	<3.0	<0.61	25	1	
Chloromethane	ND	<3.0	<1.5	25	1	
Freon 114	ND	<3.0	<0.43	25	1	
Vinyl chloride	ND	<3.0	<1.2	25	1	
1,3-Butadiene	ND	<3.0	<1.4	25	1	
Bromomethane	ND	<3.0	<0.78	25	1	
Chloroethane	ND	<3.0	<1.1	25	1	
Ethanol	36	4.3	2.3	25	1	
Isopropyl alcohol	ND	<3.0	<1.2	25	1	
Freon 11	ND	<3.0	<0.54	25	1	
Freon 113	ND	<3.0	<0.39	25	1	
Acetone	320	38	16	25	1	
Carbon disulfide	ND	<3.0	<0.97	25	1	
1,1-Dichloroethene	ND	<3.0	<0.76	25	1	

Results Continued on Next Page



ANALYTICAL REPORT

Workorder: **34-1316241**

Client: ACT Environmental
Incorporated

Project Manager: Rand Potter

Analytical Results

Sample ID: 3-6-7	Sampling Site: NA	Received: 06/11/2013
Lab ID: 1316241002	Media: Carbo Trap 300	
Matrix: Air	Sampling Parameter: Air Volume 8.3 L	

Analysis Method - EPA TO-17 Mod.

Preparation: Not Applicable	Analysis: EPA TO-17, Air Batch: IVOA/2301 (HBN: 108601) Analyzed: 06/17/2013 18:42	Instrument ID: 5972-X Percent Solid: NA Report Basis: Wet
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Analyte	ng/sample	ug/m ³	ppb	RL (ng/sample)	Dilution	Qual.
Methylene chloride	45	5.5	1.6	25	1	
trans-1,2-Dichloroethene	ND	<3.0	<0.76	25	1	
1,1-Dichloroethane	ND	<3.0	<0.74	25	1	
Methyl t-butyl ether	ND	<3.0	<0.84	25	1	
Vinyl acetate	ND	<3.0	<0.86	25	1	
2-Butanone	ND	<3.0	<1.0	25	1	
cis-1,2-Dichloroethene	ND	<3.0	<0.76	25	1	
Ethyl acetate	ND	<3.0	<0.84	25	1	
Hexane	ND	<3.0	<0.85	25	1	
Chloroform	ND	<3.0	<0.62	25	1	
Tetrahydrofuran	ND	<3.0	<1.0	25	1	
1,2-Dichloroethane	ND	<3.0	<0.74	25	1	
1,1,1-Trichloroethane	ND	<3.0	<0.55	25	1	
Benzene	ND	<3.0	<0.94	25	1	
Carbon tetrachloride	ND	<3.0	<0.48	25	1	
1,2-Dichloropropane	ND	<3.0	<0.62	25	1	
Bromodichloromethane	ND	<3.0	<0.45	25	1	
Cyclohexane	ND	<3.0	<0.88	25	1	
Trichloroethene	ND	<3.0	<0.56	25	1	
Heptane	ND	<3.0	<0.73	25	1	
cis-1,3-Dichloropropene	ND	<3.0	<0.66	25	1	
4-Methyl-2-pentanone	ND	<3.0	<0.74	25	1	
trans-1,3-Dichloropropene	ND	<3.0	<0.66	25	1	
1,1,2-Trichloroethane	ND	<3.0	<0.55	25	1	
Toluene	74	8.9	2.4	25	1	
2-Hexanone	ND	<3.0	<0.74	25	1	
Dibromochloromethane	ND	<3.0	<0.35	25	1	
Tetrachloroethene	ND	<3.0	<0.44	25	1	
1,2-Dibromoethane	ND	<3.0	<0.39	25	1	
Chlorobenzene	ND	<3.0	<0.65	25	1	
Ethylbenzene	36	4.3	0.99	25	1	
m,p-Xylene	100	13	2.9	25	1	
Bromoform	ND	<3.0	<0.29	25	1	
Styrene	ND	<3.0	<0.71	25	1	
1,1,2,2-Tetrachloroethane	ND	<3.0	<0.44	25	1	

Results Continued on Next Page



ANALYTICAL REPORT

Workorder: **34-1316241**

Client: ACT Environmental
Incorporated

Project Manager: Rand Potter

Analytical Results

Sample ID: 3-6-7	Sampling Site: NA	Received: 06/11/2013
Lab ID: 1316241002	Media: Carbo Trap 300	
Matrix: Air	Sampling Parameter: Air Volume 8.3 L	

Analysis Method - EPA TO-17 Mod.

Preparation: Not Applicable	Analysis: EPA TO-17, Air Batch: IVOA/2301 (HBN: 108601) Analyzed: 06/17/2013 18:42	Instrument ID: 5972-X Percent Solid: NA Report Basis: Wet
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Analyte	ng/sample	ug/m ³	ppb	RL (ng/sample)	Dilution	Qual.
o-Xylene	35	4.2	0.98	25	1	
4-Ethyl toluene	ND	<3.0	<0.61	25	1	
1,3,5-Trimethylbenzene	ND	<3.0	<0.61	25	1	
1,2,4-Trimethylbenzene	75	9.0	1.8	25	1	
1,3-Dichlorobenzene	ND	<3.0	<0.50	25	1	
1,4-Dichlorobenzene	ND	<3.0	<0.50	25	1	
Benzyl chloride	ND	<3.0	<0.58	25	1	
1,2-Dichlorobenzene	ND	<3.0	<0.50	25	1	
1,2,4-Trichlorobenzene	ND	<3.0	<0.41	25	1	
Hexachlorobutadiene	ND	<3.0	<0.28	25	1	

Analysis Method - EPA TO-17 Mod.

Preparation: Not Applicable	Analysis: EPA TO-17, Air Batch: IVOA/2301 (HBN: 108601) Analyzed: 06/17/2013 18:42	Instrument ID: 5972-X Percent Solid: NA Report Basis: Wet
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Tentatively Identified Compound	ng/sample	Retention Time	Dilution	Qual.
Nonane	220	14.42	1	J
Cyclohexane, 1-ethyl-4-methyl-	90	14.74	1	J
C9 Cyclhydrocarbon	110	15.04	1	J
C9 Cyclhydrocarbon	230	15.24	1	J
Benzene, 1-ethyl-3-methyl-	180	15.69	1	J
Nonane, 4-methyl-	92	15.83	1	J
C10 Hydrocarbon	190	15.93	1	J
Decane	320	16.61	1	J
Benzene, 1-methyl-2-(1-methylethyl)-	120	17.05	1	J
Decane, 4-methyl-	88	17.12	1	J
Limonene	140	17.26	1	J
Cyclohexane, butyl-	100	17.44	1	J
Naphthalene, decahydro-	90	18.06	1	J
Undecane	150	18.55	1	J



ANALYTICAL REPORT

Workorder: **34-1316241**

Client: ACT Environmental
Incorporated

Project Manager: Rand Potter

Comments

Workorder: 1316241

The following compounds were out of control limits : Bromomethane, Chloroethane, 1,1-Dichloroethane, Methylene chloride, Bromodichloromethane, 4-methyl-2-pentanone and 1,1,2-trichloroethane. See quality control report for more information.

EPA TO-17 Mod.: All results are semi-quantitative.

Report Authorization

Method	Analyst	Peer Review
EPA TO-17 Mod.	Lisa M. Reid	Thomas J. Masoian

Laboratory Contact Information

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

Phone: (801) 266-7700
Email: alslt.lab@ALSGlobal.com
Web: www.alssl.com

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	AClass (DoD ELAP)	ADE-1420	http://www.aiclasscorp.com
	Utah (NELAC)	DATA1	http://health.utah.gov/lab/labimp/
	Nevada	UT00009	http://ndep.nv.gov/bsdwl/labservice.htm
	Oklahoma	UT00009	http://www.deq.state.ok.us/CSDnew/
	Iowa	IA# 376	http://www.iowadnr.gov/InsideDNR/RegulatoryWater.aspx
	Florida (TNI)	E871067	http://www.dep.state.fl.us/labs/bars/sas/qa/
Texas (TNI)	T104704456-11-1	http://www.tceq.texas.gov/field/qa/lab_accred_certif.html	
Industrial Hygiene	AIHA (ISO 17025 & AIHA IHLAP/ELLAP)	101574	http://www.aihaaccreditedlabs.org
Lead Testing:			
CPSC	AClass (ISO 17025, CPSC)	ADE-1420	http://www.aiclasscorp.com
Soil, Dust, Paint ,Air	AIHA (ISO 17025, AIHA ELLAP and NLLAP)	101574	http://www.aihaaccreditedlabs.org
Dietary Supplements	AClass (ISO 17025)	ADE-1420	http://www.aiclasscorp.com



ANALYTICAL REPORT

Workorder: **34-1316241**

Client: ACT Environmental
Incorporated

Project Manager: Rand Potter

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%.



ANALYTICAL REPORT

Report Date: June 17, 2013

Bill Martin
ACT Environmental Incorporated
7592 N. LaCholla Blvd.
Tucson, AZ 85741

Phone: 520 791-9029
Fax: 520 791-9062
E-mail: bfmartin@actenv.com

Workorder: **34-1316239**
Client Project ID: ACT Environmental
Incorporated
Purchase Order: 26126
Project Manager: Rand Potter

Analytical Results

Sample ID: <u>2-6-7</u>		Media: SKC 226-17-1A, Hopcalite Tube		Received: 06/11/2013	
Lab ID: 1316239001					
Method: NIOSH 6009		Sampling Parameter: Air Volume 41.5 L		Analyzed: 06/17/2013	
Analyte	ug/sample	mg/m ³	ppm	RL (ug/sample)	
Mercury	<0.010	<0.00024	<0.000029	0.010	

Sample ID: <u>4-6-7</u>		Media: SKC 226-17-1A, Hopcalite Tube		Received: 06/11/2013	
Lab ID: 1316239002					
Method: NIOSH 6009		Sampling Parameter: Air Volume 41.5 L		Analyzed: 06/17/2013	
Analyte	ug/sample	mg/m ³	ppm	RL (ug/sample)	
Mercury	<0.010	<0.00024	<0.000029	0.010	

Report Authorization

Method	Analyst	Peer Review
NIOSH 6009	Christopher R. Hansen	Kevin Tucker

Laboratory Contact Information

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

Phone: (801) 266-7700
Email: alslt.lab@ALSGlobal.com
Web: www.alssl.com

ADDRESS 960 West LeVoy Drive, Salt Lake City, Utah, 84123 | PHONE +1 801 266 7700 | FAX +1 801 268 9992
ALS GROUP USA, CORP. Part of the ALS Group An ALS Limited Company

Environmental

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ANALYTICAL REPORT

Workorder: **34-1316239**
 Client Project ID: ACT Environmental
 Incorporated
 Purchase Order: 26126
 Project Manager: Rand Potter

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	ACCLASS (DoD ELAP)	ADE-1420	http://www.aiclasscorp.com
	Utah (NELAC)	DATA1	http://health.utah.gov/lab/labimp/
	Nevada	UT00009	http://ndep.nv.gov/bsdwl/labservice.htm
	Oklahoma	UT00009	http://www.deq.state.ok.us/CSDnew/
	Iowa	IA# 376	http://www.iowadnr.gov/InsideDNR/RegulatoryWater.aspx
	Florida (TNI)	E871067	http://www.dep.state.fl.us/labs/bars/sas/qa/
	Texas (TNI)	T104704456-11-1	http://www.tceq.texas.gov/field/qa/lab_accred_certif.html
Industrial Hygiene	AIHA (ISO 17025 & AIHA IHLAP/ELLAP)	101574	http://www.aihaaccreditedlabs.org
Lead Testing:			
CPSC	ACCLASS (ISO 17025, CPSC)	ADE-1420	http://www.aiclasscorp.com
Soil, Dust, Paint ,Air	AIHA (ISO 17025, AIHA ELLAP and NLLAP)	101574	http://www.aihaaccreditedlabs.org
Dietary Supplements	ACCLASS (ISO 17025)	ADE-1420	http://www.aiclasscorp.com

Definitions

LOD = Limit of Detection = MDL = Method Detection Limit, A statistical estimate of method/media/instrument sensitivity.

LOQ = Limit of Quantitation = RL = Reporting Limit, A verified value of method/media/instrument sensitivity.

ND = Not Detected, Testing result not detected above the LOD or LOQ.

** No result could be reported, see sample comments for details.

< This testing result is less than the numerical value.

() This testing result is between the LOD and LOQ and has higher analytical uncertainty than values at or above the LOQ.