UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CHICAGO REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

LABORATORY ACCREDITATION BUREAU
ACCREDITED ISO/IEC 17025
Certificate # L2280 Testing

Date: **6/19/2017**

Subject: **Review of Region 5 Data for Mid America Steel Drum, Inc.**

To: **RCRA, LCD, US EPA Region 5**
77 West Jackson Boulevard
Chicago, IL 60604

From: **Wayne Whipple, Chemist**
US EPA Region 5 Chicago Regional Laboratory

The data transmitted under this cover memo successfully passed CRL's data review procedures as documented in the current Quality Management Plan and applicable Standard Operating Procedures. In accordance with the EPA QA/G-8 *Guidance on Environmental Data Verification and Data Validation* and the U.S. EPA Region5 RMD QMP, CRL performs data verification on all the data generated internally. CRL does not perform data validation or quality assessment procedures.

This report was reviewed and the information provided herein accurately represents the analysis performed.

X WAYNE WHIPPLE Digitally signed by WAYNE WHIPPLE
Date: 2017.06.19 17:06:49 -05'00'

Please contact the analyst with any technical report issues, Robert Thompson at (312)-353-9078 for sample project concerns, and Sylvia Griffin at (312)-353-9073 with data transmittal questions. Thank you.

Attached are Results for: Mid America Steel Drum, Inc.

/ /

Data Coordinator and Date Transmitted

Analyses included in this report:

Air Toxics Reimer 5

Environmental Protection Agency Region5
Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

RCRA, LCD, US EPA Region 5	Project: Mid America Steel Drum, Inc.	
77 West Jackson Boulevard	Project Number: [none]	**Reported:**
Chicago IL, 60604	Project Manager: Jamie Paulin	Jun-19-17 17:03

Analysis Case Narrative for Volatile Organic Compounds(VOC) Air Toxics

Wayne J. Whipple, Ph.D.
phone (312) 353-9063
email whipple.wayne@epa.gov

General Information:

Five air samples were received at the Chicago Regional Laboratory in good condition on 5 May, 2017. Samples were analyzed within the hold times. The designated analyst is Wayne Whipple with contact information above
Samples were analyzed using CRL SOP MS-005 Version 2 with pen and inks 8327 and 9102 that allow for the usage of the Entech 7200 and 7650 preconcentrator instrument with robotic autosampler and an extended analyte list using a different standard. Major tentatively identified compounds (TICs) were requested.
Preliminary data was released on 11 May 2017. There are no significant differences between the preliminary and final results with the exception of the estimation of the TICs concentration.

Sample Analysis and Results:

The data meets the requirements in CRL MS-005 Version 2 and no quality assurance plan was submitted so verification parameters default to the SOP with the following exception. Reporting limits were raised from 0.025 to 0.100 pptv as discussed with the client. The email is included in this package. The Qualtrax Customer Client Contact number is 10373. The analysis was performed with dilutions analyzed first although are named with an RE extension because of the results are not the primary results. TICs were reported for most samples and duplicates. The TIC estimations were based from the closest target compound type responses and calibration curves. A spreadsheet is included in this package that has the compound used for quantification of each TIC. Each TIC was qualified "NJ" for estimated presumptive identification.

Sample	TIC	mass	quant compound(quant ion)	pptv
1705001-01	methyl acetate	43	vinyl acetate	1202
B17E008-DUP1	methyl acetate	43	vinyl acetate	1201
1705001-02	Nonanal	82	hexanal	874
1705001-03	Propane, 2,2-difuoro-	65	Difuorochloromethane	10673
	1,1,1,3,3,3--hexaifuoropropane	133	1,1,2-Trichloro-1,2,2-Trifuoroethane	4192
1705001-03RE1	Propane, 2,2-difuoro-	65	Difuorochloromethane	13497
	1,1,1,3,3,3--hexaifuoropropane	133	1,1,2-Trichloro-1,2,2-Trifuoroethane	3455
B17E008-DUP4	Propane, 2,2-difuoro-	65	F-22(51)	10575
	1,1,1,3,3,3--hexafuoropropane	133	F-113 (151)	4237
1705001-04	Propane, 2,2-difuoro-	65	Difuorochloromethane	5844
	1,1,1,3,3,3--hexaifuoropropane	133	1,1,2-Trichloro-1,2,2-Trifuoroethane	1734
1705001-04RE1	Propane, 2,2-difuoro-	65	Difuorochloromethane	8419
	1,1,1,3,3,3--hexaifuoropropane	133	1,1,2-Trichloro-1,2,2-Trifuoroethane	2079
B17E008-DUP5	Propane, 2,2-difuoro-	65	F-22(51)	5918
	1,1,1,3,3,3--trifuoropropane	82	1,1,2-Trichloro-1,2,2-Trifuoroethane	1756
1705001-05	Nonal	82	hexanal	854

Nonal was present in samples 1705001-02 and -05 but could not be confirmed in the duplicates or dilutions. Since the maximum concentration detected was below 1 ppbv this makes the confidence that the compound is present in significant

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quantities less and therefore it is not reported.
Reporting limits were set for most compounds to a minimum of 100 pptv with the exception of the sample monitoring compounds where they were set low enough to allow reporting of the measured concentrations for quality control reporting purposes. The oxygenates that normally have the 0.5 pptv were maintained unless the RL was lowered in laboratory control samples to allow quality control reporting of the recoveries and precision.

Quality Control:

Chloroethane had high concentrations of TIC compounds that most likely caused a very high result for the samples-03 and -04 which was most likely not present. The sample is flagged as an over estimate "K" but there may not even be any presence of chloroethane and the result may be from just the interfering compounds.

Methanol and Ethanol in sample 1705001-01, 1-propanol and 1-butanol in sample -04, and 2-propanol in sample -02 have reported concentrations that are above the calibration curves highest standard and are therefore reported as estimated, "J". Results from the diluted analysis could not be reported because they exhibited concentrations below the reporting limit. Additionally, **Methanol** in samples 1705001-05, B17E008-DUP1, -DUP3, -DUP4 and -DUP5 are above the calibration curve but the dilution for 1705001-05 is below the reporting limit, therefore the higher concentration is reported with a "J" flag as estimated. **Ethanol** in samples B17E008-DUP1, -DUP3, -DUP4 and -DUP5 are above the calibration curve therefore the higher concentration is reported with a "J" flag as estimated.

Propene has significant matrix interferences with the identification and confidence of quantification of the spectra and quantitation ion. The compound is flagged "MI" for all field samples due to matrix interference. It appears there were not significant concentrations of propene present

Ethanol and **acetaldehyde** failed initial calibration, continuing calibration verification with the % error between the expected and calculated concentrations being too far out of tolerance throughout most of the calibration. The results for ethanol were in the ppbv range and are reported as estimated, "J" in addition to an "ICV" and "ICAL" qualifier. The results for acetaldehyde have been rejected because all the results were lower in concentration and in a much more uncertain concentration. **Ethanol** is above the calibration levels even in the dilutions in samples 1705001-04RE1 and 1705001-02RE1. The results are already estimated for the above reasons so no further action is needed.

2-propanol, acetone, acetaldehyde, butanal, ethanol, methanol, and propene all fail the initial calibration verification acceptance criteria. These compounds have been flagged "ICV" and "J".

Acetone is above the calibration level in sample 1705001-04RE1, B17E008-DUP1,3,4, and 5 and are flagged estimated, as "J".

Samples B17E008-DUP3,-DUP4, and -DUP5 were analyzed beyond a required instrument time for checking the tune and leaks in the mass spectrometer. The leak and tune check was performed after the analysis of those samples and the samples were reanalyzed and reported as the primary samples (1705001-01,-02, -03, -04). The reanalyzed samples were labeled the original analysis 1705001-02, -03, and -04. The initial runs are included in this package to provide information on the reproducibility of the analytical batch. **Method and canister blank** potential interferences are flagged "B". If the results for compounds in the sample are within 5 times the results from the method blank or the specific canister certified concentration (canister blank) the result is qualified "B" suggesting that the sample result may have been influenced by system contamination.

Some of the **sample monitoring compounds** have their detection and reporting limits lowered to the level detected in the sample to monitor the quality of the analysis and document that quality in the report. The low concentrations for the diluted samples' monitoring compounds 1,1,1-trichloroethane and 1,1,2-trichloro-1,2,2-trifluoroethane cause non-detects and excess variability. The 10 fold dilutions show good recovery for the rest of these sample monitoring compounds.

Environmental Protection Agency Region5
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RCRA, LCD, US EPA Region 5	Project: Mid America Steel Drum, Inc.	
77 West Jackson Boulevard	Project Number: [none]	**Reported:**
Chicago IL, 60604	Project Manager: Jamie Paulin	Jun-19-17 17:03

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Chicago IL, 60604	Project Manager: Jamie Paulin	Jun-19-17 17:03

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
1	1705001-01	Air	May-04-17 13:02	May-05-17 10:30
2	1705001-02	Air	May-04-17 13:30	May-05-17 10:30
3	1705001-03	Air	May-04-17 13:37	May-05-17 10:30
4	1705001-04	Air	May-04-17 13:50	May-05-17 10:30
5	1705001-05	Air	May-04-17 13:54	May-05-17 10:30

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Chicago IL, 60604	Project Manager: Jamie Paulin	Jun-19-17 17:03

Air Toxics by GC/MS, EPA TO-15 (modified)
US EPA Region 5 Chicago Regional Laboratory

1 (1705001-01) Matrix: Air Sampled: May-04-17 13:02 Received: May-05-17 10:30

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
methyl acetate	**1.00**	NJ			ppbv	1	B17E008	May-05-17	May-09-17
Chlorodifluoromethane (HCFC-22) (R-22)	**0.288**			0.100	"	"	"	"	"
Propene	**0.340**	(ICV), J, MI		0.100	"	"	"	"	"
Chloromethane	**0.595**			0.100	"	"	"	"	"
Methanol	**2.91**	(ICV), B, J		0.500	"	"	"	"	"
Vinyl chloride	**U**			0.100	"	"	"	"	"
Isobutene	**0.116**			0.100	"	"	"	"	"
1,3-butadiene	**U**			0.100	"	"	"	"	"
Acetaldehyde	**Rejected**	(ICAL), (ICV)		5.00	"	"	"	"	"
Bromomethane	**U**			0.100	"	"	"	"	"
Chloroethane	**U**			0.100	"	"	"	"	"
Ethanol	**2.12**	(ICAL), (ICV), J		0.500	"	"	"	"	"
Acrolein	**U**			0.100	"	"	"	"	"
Acetonitrile	**U**			0.100	"	"	"	"	"
Isopropyl alcohol	**U**	(ICV), J		0.500	"	"	"	"	"
Propanal	**0.162**			0.100	"	"	"	"	"
Pentane	**0.124**			0.100	"	"	"	"	"
Isoprene	**U**			0.100	"	"	"	"	"
1,1-Dichloroethene	**U**			0.100	"	"	"	"	"
Methyl iodide	**U**			0.100	"	"	"	"	"
Acrylonitrile	**U**			0.100	"	"	"	"	"
Methylene chloride	**0.346**			0.100	"	"	"	"	"
Carbon disulfide	**U**			0.100	"	"	"	"	"
1-Propanol	**U**			0.500	"	"	"	"	"
Cyclopentane	**U**			0.100	"	"	"	"	"
Methyl tert-butyl ether	**U**			0.100	"	"	"	"	"
Methacrolein	**U**			0.100	"	"	"	"	"
1,1-Dichloroethane	**U**			0.100	"	"	"	"	"
Vinyl acetate	**U**			0.100	"	"	"	"	"

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77 West Jackson Boulevard	Project Number: [none]	**Reported:**
Chicago IL, 60604	Project Manager: Jamie Paulin	Jun-19-17 17:03

Air Toxics by GC/MS, EPA TO-15 (modified)
US EPA Region 5 Chicago Regional Laboratory

1 (1705001-01) Matrix: Air Sampled: May-04-17 13:02 Received: May-05-17 10:30

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Methyl vinyl ketone	**U**			0.100	ppbv	1	B17E008	May-05-17	May-09-17
Butanal	**0.112**	(ICV), B, J		0.100	"	"	"	"	"
Hexane	**U**			0.100	"	"	"	"	"
2-Butanone	**0.250**			0.100	"	"	"	"	"
cis-1,2-Dichloroethene	**U**			0.100	"	"	"	"	"
trans-1,2-Dichloroethene	**U**			0.100	"	"	"	"	"
Chloroform	**U**			0.100	"	"	"	"	"
1,2-Dichloroethane	**U**			0.100	"	"	"	"	"
1-Butanol	**U**			0.500	"	"	"	"	"
Cyclohexane	**U**			0.250	"	"	"	"	"
Benzene	**U**			0.100	"	"	"	"	"
2-Pentanone	**U**			0.100	"	"	"	"	"
Pentanal	**U**			0.100	"	"	"	"	"
3-Pentanone	**U**			0.100	"	"	"	"	"
1,2-Dichloropropane	**U**			0.100	"	"	"	"	"
Trichloroethene	**U**			0.100	"	"	"	"	"
Bromodichloromethane	**U**			0.100	"	"	"	"	"
1,4-Dioxane	**U**			0.100	"	"	"	"	"
cis-1,3-Dichloropropene	**U**			0.100	"	"	"	"	"
4-Methyl-2-pentanone	**U**			0.100	"	"	"	"	"
trans-1,3-Dichloropropene	**U**			0.100	"	"	"	"	"
1,1,2-Trichloroethane	**U**			0.100	"	"	"	"	"
Dibromochloromethane	**U**			0.100	"	"	"	"	"
Toluene	**0.446**			0.100	"	"	"	"	"
3-Hexanone	**U**			0.100	"	"	"	"	"
2-Hexanone	**U**			0.100	"	"	"	"	"
Hexanal	**0.143**			0.100	"	"	"	"	"
1,2-Dibromoethane (EDB)	**U**			0.100	"	"	"	"	"
Tetrachloroethene	**U**			0.100	"	"	"	"	"
Chlorobenzene	**U**			0.100	"	"	"	"	"
Ethylbenzene	**U**			0.100	"	"	"	"	"
m+p-Xylene	**U**			0.200	"	"	"	"	"
Bromoform	**U**			0.100	"	"	"	"	"
Styrene	**U**			0.100	"	"	"	"	"

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77 West Jackson Boulevard	Project Number: [none]	**Reported:**
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Air Toxics by GC/MS, EPA TO-15 (modified)
US EPA Region 5 Chicago Regional Laboratory

1 (1705001-01) Matrix: Air Sampled: May-04-17 13:02 Received: May-05-17 10:30

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
1,1,2,2-Tetrachloroethane	**U**			0.100	ppbv	1	B17E008	May-05-17	May-09-17
o-Xylene	**U**			0.100	"	"	"	"	"
1,3,5-Trimethylbenzene	**U**			0.100	"	"	"	"	"
1,2,4-Trimethylbenzene	**U**			0.100	"	"	"	"	"
1,3-Dichlorobenzene	**U**			0.100	"	"	"	"	"
Benzyl chloride	**U**			0.100	"	"	"	"	"
1,4-Dichlorobenzene	**U**			0.100	"	"	"	"	"
1,2,3-Trimethylbenzene	**U**			0.100	"	"	"	"	"
1,2-Dichlorobenzene	**U**			0.100	"	"	"	"	"
Hexachlorobutadiene	**U**			0.100	"	"	"	"	"
1,2,4-Trichlorobenzene	**U**			0.100	"	"	"	"	"
Naphthalene	**U**			0.100	"	"	"	"	"

Surogate	Result	%REC	%REC Limits	Batch	Prepared	Analyzed
Dichlorodifluoromethane	0.513	*101%*	*70-130*	"	"	"
Dichlorotetrafluoroethane	0.0197	*99%*	*60-140*	"	"	"
Trichlorofluoromethane	0.240	*102%*	*70-130*	"	"	"
1,1,2-trichloro-1,2,2-trifluoroethane (Freon 113)	0.0825	*115%*	*70-130*	"	"	"
1,1,1-Trichloroethane	3.07E-3	*77%*	*50-150*	"	"	"
Carbon tetrachloride	0.0849	*102%*	*70-130*	"	"	"

1 (1705001-01RE1) Matrix: Air Sampled: May-04-17 13:02 Received: May-05-17 10:30

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Acetone	**3.05**	(ICV), B, J		1.00	ppbv	1	B17E008	May-05-17	May-09-17

Surogate	Result	%REC	%REC Limits	Batch	Prepared	Analyzed
Dichlorodifluoromethane	0.554	*109%*	*70-130*	"	"	"
Dichlorotetrafluoroethane	0.0227	*114%*	*60-140*	"	"	"
Trichlorofluoromethane	0.275	*117%*	*70-130*	"	"	"
1,1,2-trichloro-1,2,2-trifluoroethane (Freon 113)	0.106	Q *147%*	*70-130*	"	"	"
Carbon tetrachloride	0.0911	*110%*	*70-130*	"	"	"

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Air Toxics by GC/MS, EPA TO-15 (modified)
US EPA Region 5 Chicago Regional Laboratory

2 (1705001-02) **Matrix: Air** **Sampled: May-04-17 13:30** **Received: May-05-17 10:30**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Chlorodifluoromethane (HCFC-22) (R-22)	**0.275**			0.100	ppbv	1	B17E008	May-05-17	May-09-17
Propene	**0.368**	(ICV), J, MI		0.100	"	"	"	"	"
Chloromethane	**0.565**			0.100	"	"	"	"	"
Vinyl chloride	**U**			0.100	"	"	"	"	"
Isobutene	**U**			0.100	"	"	"	"	"
1,3-butadiene	**U**			0.100	"	"	"	"	"
Acetaldehyde	**Rejected**	(ICAL), (ICV)		5.00	"	"	"	"	"
Bromomethane	**U**			0.100	"	"	"	"	"
Chloroethane	**U**			0.100	"	"	"	"	"
Acrolein	**U**			0.100	"	"	"	"	"
Acetonitrile	**0.142**			0.100	"	"	"	"	"
Isopropyl alcohol	**2.04**	(ICV), J		0.500	"	"	"	"	"
Propanal	**0.309**			0.100	"	"	"	"	"
Pentane	**U**			0.100	"	"	"	"	"
Isoprene	**U**			0.100	"	"	"	"	"
1,1-Dichloroethene	**U**			0.100	"	"	"	"	"
Methyl iodide	**U**			0.100	"	"	"	"	"
Acrylonitrile	**U**			0.100	"	"	"	"	"
Carbon disulfide	**U**			0.100	"	"	"	"	"
1-Propanol	**U**			0.500	"	"	"	"	"
Cyclopentane	**U**			0.100	"	"	"	"	"
Methyl tert-butyl ether	**U**			0.100	"	"	"	"	"
Methacrolein	**U**			0.100	"	"	"	"	"
1,1-Dichloroethane	**U**			0.100	"	"	"	"	"
Vinyl acetate	**U**			0.100	"	"	"	"	"
Methyl vinyl ketone	**U**			0.100	"	"	"	"	"
Butanal	**0.352**	(ICV), J		0.100	"	"	"	"	"
Hexane	**U**			0.100	"	"	"	"	"
2-Butanone	**0.289**			0.100	"	"	"	"	"
cis-1,2-Dichloroethene	**U**			0.100	"	"	"	"	"
trans-1,2-Dichloroethene	**U**			0.100	"	"	"	"	"
Chloroform	**U**			0.100	"	"	"	"	"
1,2-Dichloroethane	**U**			0.100	"	"	"	"	"
1-Butanol	**U**			0.500	"	"	"	"	"

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77 West Jackson Boulevard	Project Number: [none]	**Reported:**
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Air Toxics by GC/MS, EPA TO-15 (modified)
US EPA Region 5 Chicago Regional Laboratory

2 (1705001-02) **Matrix: Air** **Sampled: May-04-17 13:30** **Received: May-05-17 10:30**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Cyclohexane	**U**			0.250	ppbv	1	B17E008	May-05-17	May-09-17
Benzene	**0.102**			0.100	"	"	"	"	"
2-Pentanone	**U**			0.100	"	"	"	"	"
Pentanal	**0.115**			0.100	"	"	"	"	"
3-Pentanone	**U**			0.100	"	"	"	"	"
1,2-Dichloropropane	**U**			0.100	"	"	"	"	"
Trichloroethene	**U**			0.100	"	"	"	"	"
Bromodichloromethane	**U**			0.100	"	"	"	"	"
1,4-Dioxane	**U**			0.100	"	"	"	"	"
cis-1,3-Dichloropropene	**U**			0.100	"	"	"	"	"
4-Methyl-2-pentanone	**U**			0.100	"	"	"	"	"
trans-1,3-Dichloropropene	**U**			0.100	"	"	"	"	"
1,1,2-Trichloroethane	**U**			0.100	"	"	"	"	"
Dibromochloromethane	**U**			0.100	"	"	"	"	"
Toluene	**0.901**			0.100	"	"	"	"	"
3-Hexanone	**U**			0.100	"	"	"	"	"
2-Hexanone	**U**			0.100	"	"	"	"	"
Hexanal	**0.243**			0.100	"	"	"	"	"
1,2-Dibromoethane (EDB)	**U**			0.100	"	"	"	"	"
Tetrachloroethene	**U**			0.100	"	"	"	"	"
Chlorobenzene	**U**			0.100	"	"	"	"	"
Ethylbenzene	**U**			0.100	"	"	"	"	"
m+p-Xylene	**U**			0.200	"	"	"	"	"
Bromoform	**U**			0.100	"	"	"	"	"
Styrene	**U**			0.100	"	"	"	"	"
1,1,2,2-Tetrachloroethane	**U**			0.100	"	"	"	"	"
o-Xylene	**U**			0.100	"	"	"	"	"
1,3,5-Trimethylbenzene	**U**			0.100	"	"	"	"	"
1,2,4-Trimethylbenzene	**U**			0.100	"	"	"	"	"
1,3-Dichlorobenzene	**U**			0.100	"	"	"	"	"
Benzyl chloride	**U**			0.100	"	"	"	"	"
1,4-Dichlorobenzene	**U**			0.100	"	"	"	"	"
1,2,3-Trimethylbenzene	**U**			0.100	"	"	"	"	"
1,2-Dichlorobenzene	**U**			0.100	"	"	"	"	"

Environmental Protection Agency Region5
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RCRA, LCD, US EPA Region 5	Project: Mid America Steel Drum, Inc.	
77 West Jackson Boulevard	Project Number: [none]	**Reported:**
Chicago IL, 60604	Project Manager: Jamie Paulin	Jun-19-17 17:03

Air Toxics by GC/MS, EPA TO-15 (modified)
US EPA Region 5 Chicago Regional Laboratory

2 (1705001-02) Matrix: Air Sampled: May-04-17 13:30 Received: May-05-17 10:30

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Hexachlorobutadiene	**U**			0.100	ppbv	1	B17E008	May-05-17	May-09-17
1,2,4-Trichlorobenzene	**U**			0.100	"	"	"	"	"
Naphthalene	**U**			0.100	"	"	"	"	"

Surogate	Result	%REC	%REC Limits	Batch	Prepared	Analyzed
Dichlorodifluoromethane	0.498	*98%*	*70-130*	"	"	"
Dichlorotetrafluoroethane	0.0195	*98%*	*60-140*	"	"	"
Trichlorofluoromethane	0.238	*101%*	*70-130*	"	"	"
1,1,2-trichloro-1,2,2-trifluoroethane (Freon 113)	0.0803	*112%*	*70-130*	"	"	"
1,1,1-Trichloroethane	5.00E-3	*125%*	*50-150*	"	"	"
Carbon tetrachloride	0.0853	*103%*	*70-130*	"	"	"

2 (1705001-02RE1) Matrix: Air Sampled: May-04-17 13:30 Received: May-05-17 10:30

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Methanol	**58.7**	(ICV), B, J		5.00	ppbv	1	B17E008	May-05-17	May-09-17
Ethanol	**18.5**	(ICAL), (ICV), J		5.00	"	"	"	"	"
Isopropyl alcohol	**U**	(ICV), J		5.00	"	"	"	"	"
Acetone	**18.5**	B, (ICV), J		1.00	"	"	"	"	"
Methylene chloride	**12.2**			1.00	"	"	"	"	"

Surogate	Result	%REC	%REC Limits	Batch	Prepared	Analyzed
Dichlorodifluoromethane	0.570	*112%*	*70-130*	"	"	"
Dichlorotetrafluoroethane	0.0238	*119%*	*60-140*	"	"	"
Trichlorofluoromethane	0.277	*118%*	*70-130*	"	"	"
1,1,2-trichloro-1,2,2-trifluoroethane (Freon 113)	0.0873	*121%*	*70-130*	"	"	"
Carbon tetrachloride	0.0988	*119%*	*70-130*	"	"	"

3 (1705001-03) Matrix: Air Sampled: May-04-17 13:37 Received: May-05-17 10:30

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
2,2-difluoropropane	**10.0**	NJ			ppbv	1	B17E008	May-05-17	May-09-17
1,1,1,3.3.3-hexafluoropropane	**4.00**	NJ			"	"	"	"	"
Chlorodifluoromethane (HCFC-22) (R-22)	**0.270**			0.100	"	"	"	"	"

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RCRA, LCD, US EPA Region 5	Project: Mid America Steel Drum, Inc.	
77 West Jackson Boulevard	Project Number: [none]	**Reported:**
Chicago IL, 60604	Project Manager: Jamie Paulin	Jun-19-17 17:03

Air Toxics by GC/MS, EPA TO-15 (modified)
US EPA Region 5 Chicago Regional Laboratory

3 (1705001-03) **Matrix: Air** **Sampled: May-04-17 13:37** **Received: May-05-17 10:30**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Propene	**0.345**	(ICV), J, MI		0.100	ppbv	1	B17E008	May-05-17	May-09-17
Chloromethane	**0.598**			0.100	"	"	"	"	"
Vinyl chloride	**U**			0.100	"	"	"	"	"
Isobutene	**U**			0.100	"	"	"	"	"
1,3-butadiene	**U**			0.100	"	"	"	"	"
Acetaldehyde	**Rejected**	(ICAL), (ICV)		5.00	"	"	"	"	"
Bromomethane	**U**			0.100	"	"	"	"	"
Chloroethane	**2.98**	K, MI		0.100	"	"	"	"	"
Acrolein	**U**			0.100	"	"	"	"	"
Acetonitrile	**0.116**			0.100	"	"	"	"	"
Isopropyl alcohol	**1.68**	(ICV), J		0.500	"	"	"	"	"
Propanal	**0.260**			0.100	"	"	"	"	"
Pentane	**0.152**			0.100	"	"	"	"	"
Isoprene	**U**			0.100	"	"	"	"	"
1,1-Dichloroethene	**U**			0.100	"	"	"	"	"
Methyl iodide	**U**			0.100	"	"	"	"	"
Acrylonitrile	**U**			0.100	"	"	"	"	"
Carbon disulfide	**U**			0.100	"	"	"	"	"
1-Propanol	**U**			0.500	"	"	"	"	"
Cyclopentane	**U**			0.100	"	"	"	"	"
Methyl tert-butyl ether	**U**			0.100	"	"	"	"	"
Methacrolein	**U**			0.100	"	"	"	"	"
1,1-Dichloroethane	**U**			0.100	"	"	"	"	"
Vinyl acetate	**U**			0.100	"	"	"	"	"
Methyl vinyl ketone	**U**			0.100	"	"	"	"	"
Butanal	**0.136**	(ICV), B, J		0.100	"	"	"	"	"
Hexane	**0.205**			0.100	"	"	"	"	"
2-Butanone	**0.700**			0.100	"	"	"	"	"
cis-1,2-Dichloroethene	**U**			0.100	"	"	"	"	"
trans-1,2-Dichloroethene	**U**			0.100	"	"	"	"	"
Chloroform	**U**			0.100	"	"	"	"	"
1,2-Dichloroethane	**U**			0.100	"	"	"	"	"
1-Butanol	**U**			0.500	"	"	"	"	"
Cyclohexane	**U**			0.250	"	"	"	"	"
Benzene	**U**			0.100	"	"	"	"	"

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RCRA, LCD, US EPA Region 5	Project: Mid America Steel Drum, Inc.	
77 West Jackson Boulevard	Project Number: [none]	**Reported:**
Chicago IL, 60604	Project Manager: Jamie Paulin	Jun-19-17 17:03

Air Toxics by GC/MS, EPA TO-15 (modified)
US EPA Region 5 Chicago Regional Laboratory

3 (1705001-03) **Matrix: Air** **Sampled: May-04-17 13:37** **Received: May-05-17 10:30**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
2-Pentanone	**U**			0.100	ppbv	1	B17E008	May-05-17	May-09-17
3-Pentanone	**U**			0.100	"	"	"	"	"
Pentanal	**U**			0.100	"	"	"	"	"
1,2-Dichloropropane	**U**			0.100	"	"	"	"	"
Trichloroethene	**U**			0.100	"	"	"	"	"
Bromodichloromethane	**U**			0.100	"	"	"	"	"
1,4-Dioxane	**U**			0.100	"	"	"	"	"
cis-1,3-Dichloropropene	**U**			0.100	"	"	"	"	"
4-Methyl-2-pentanone	**U**			0.100	"	"	"	"	"
trans-1,3-Dichloropropene	**U**			0.100	"	"	"	"	"
1,1,2-Trichloroethane	**U**			0.100	"	"	"	"	"
Dibromochloromethane	**U**			0.100	"	"	"	"	"
Toluene	**1.19**			0.100	"	"	"	"	"
3-Hexanone	**U**			0.100	"	"	"	"	"
2-Hexanone	**U**			0.100	"	"	"	"	"
Hexanal	**U**			0.100	"	"	"	"	"
1,2-Dibromoethane (EDB)	**U**			0.100	"	"	"	"	"
Tetrachloroethene	**U**			0.100	"	"	"	"	"
Chlorobenzene	**U**			0.100	"	"	"	"	"
Ethylbenzene	**U**			0.100	"	"	"	"	"
m+p-Xylene	**U**			0.200	"	"	"	"	"
Bromoform	**U**			0.100	"	"	"	"	"
Styrene	**U**			0.100	"	"	"	"	"
1,1,2,2-Tetrachloroethane	**U**			0.100	"	"	"	"	"
o-Xylene	**U**			0.100	"	"	"	"	"
1,3,5-Trimethylbenzene	**U**			0.100	"	"	"	"	"
1,2,4-Trimethylbenzene	**U**			0.100	"	"	"	"	"
1,3-Dichlorobenzene	**U**			0.100	"	"	"	"	"
Benzyl chloride	**U**			0.100	"	"	"	"	"
1,4-Dichlorobenzene	**U**			0.100	"	"	"	"	"
1,2,3-Trimethylbenzene	**U**			0.100	"	"	"	"	"
1,2-Dichlorobenzene	**U**			0.100	"	"	"	"	"
Hexachlorobutadiene	**U**			0.100	"	"	"	"	"
1,2,4-Trichlorobenzene	**U**			0.100	"	"	"	"	"

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RCRA, LCD, US EPA Region 5	Project: Mid America Steel Drum, Inc.	
77 West Jackson Boulevard	Project Number: [none]	**Reported:**
Chicago IL, 60604	Project Manager: Jamie Paulin	Jun-19-17 17:03

Air Toxics by GC/MS, EPA TO-15 (modified)
US EPA Region 5 Chicago Regional Laboratory

3 (1705001-03) **Matrix: Air** **Sampled: May-04-17 13:37** **Received: May-05-17 10:30**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Naphthalene	**U**			0.100	ppbv	1	B17E008	May-05-17	May-09-17

Surogate	Result	%REC	%REC Limits	Batch	Prepared	Analyzed
Dichlorodifluoromethane	0.452	*89%*	*70-130*	"	"	"
Dichlorotetrafluoroethane	0.0188	*94%*	*60-140*	"	"	"
Trichlorofluoromethane	0.243	*103%*	*70-130*	"	"	"
1,1,2-trichloro-1,2,2-trifluoroethane (Freon 113)	0.0804	*112%*	*70-130*	"	"	"
1,1,1-Trichloroethane	3.24E-3	*81%*	*50-150*	"	"	"
Carbon tetrachloride	0.0843	*102%*	*70-130*	"	"	"

3 (1705001-03RE1) **Matrix: Air** **Sampled: May-04-17 13:37** **Received: May-05-17 10:30**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Methanol	**33.0**	(ICV), B, J		5.00	ppbv	1	B17E008	May-05-17	May-09-17
Ethanol	**7.22**	J, (ICAL), (ICV)		5.00	"	"	"	"	"
Acetone	**10.3**	B, (ICV), J		1.00	"	"	"	"	"
Methylene chloride	**9.41**			1.00	"	"	"	"	"

Surogate	Result	%REC	%REC Limits	Batch	Prepared	Analyzed
Dichlorodifluoromethane	0.571	*112%*	*70-130*	"	"	"
Dichlorotetrafluoroethane	0.0259	*130%*	*60-140*	"	"	"
Trichlorofluoromethane	0.282	*120%*	*70-130*	"	"	"
1,1,2-trichloro-1,2,2-trifluoroethane (Freon 113)	0.104	Q *144%*	*70-130*	"	"	"
Carbon tetrachloride	0.0991	*119%*	*70-130*	"	"	"

4 (1705001-04) **Matrix: Air** **Sampled: May-04-17 13:50** **Received: May-05-17 10:30**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
2,2-difluoropropane	**6.00**	NJ			ppbv	1	B17E008	May-05-17	May-09-17
1,1,1,3.3.3-hexafluoropropane	**2.00**	NJ			"	"	"	"	"
Chlorodifluoromethane (HCFC-22) (R-22)	**0.270**			0.100	"	"	"	"	"
Propene	**0.333**	(ICV), J, MI		0.100	"	"	"	"	"
Chloromethane	**0.560**			0.100	"	"	"	"	"
Vinyl chloride	**U**			0.100	"	"	"	"	"

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RCRA, LCD, US EPA Region 5	Project: Mid America Steel Drum, Inc.	
77 West Jackson Boulevard	Project Number: [none]	**Reported:**
Chicago IL, 60604	Project Manager: Jamie Paulin	Jun-19-17 17:03

Air Toxics by GC/MS, EPA TO-15 (modified)
US EPA Region 5 Chicago Regional Laboratory

4 (1705001-04) **Matrix: Air** **Sampled: May-04-17 13:50** **Received: May-05-17 10:30**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Isobutene	**0.115**			0.100	ppbv	1	B17E008	May-05-17	May-09-17
1,3-butadiene	**U**			0.100	"	"	"	"	"
Acetaldehyde	**Rejected**	(ICAL), (ICV)		5.00	"	"	"	"	"
Bromomethane	**U**			0.100	"	"	"	"	"
Chloroethane	**1.59**	K, MI		0.100	"	"	"	"	"
Acrolein	**0.146**			0.100	"	"	"	"	"
Acetonitrile	**0.554**			0.100	"	"	"	"	"
Isopropyl alcohol	**8.41**	(ICV), J		0.500	"	"	"	"	"
Propanal	**0.279**			0.100	"	"	"	"	"
Pentane	**U**			0.100	"	"	"	"	"
Isoprene	**U**			0.100	"	"	"	"	"
1,1-Dichloroethene	**U**			0.100	"	"	"	"	"
Methyl iodide	**U**			0.100	"	"	"	"	"
Acrylonitrile	**0.120**			0.100	"	"	"	"	"
Carbon disulfide	**U**			0.100	"	"	"	"	"
1-Propanol	**4.31**	J		0.500	"	"	"	"	"
Cyclopentane	**0.100**			0.100	"	"	"	"	"
Methyl tert-butyl ether	**0.345**			0.100	"	"	"	"	"
Methacrolein	**U**			0.100	"	"	"	"	"
1,1-Dichloroethane	**U**			0.100	"	"	"	"	"
Vinyl acetate	**U**			0.100	"	"	"	"	"
Methyl vinyl ketone	**U**			0.100	"	"	"	"	"
Butanal	**0.236**	(ICV), B, J		0.100	"	"	"	"	"
Hexane	**1.89**			0.100	"	"	"	"	"
cis-1,2-Dichloroethene	**U**			0.100	"	"	"	"	"
trans-1,2-Dichloroethene	**U**			0.100	"	"	"	"	"
Chloroform	**U**			0.100	"	"	"	"	"
1,2-Dichloroethane	**U**			0.100	"	"	"	"	"
1-Butanol	**2.72**	J		0.500	"	"	"	"	"
Cyclohexane	**0.367**			0.250	"	"	"	"	"
Benzene	**U**			0.100	"	"	"	"	"
2-Pentanone	**0.272**			0.100	"	"	"	"	"
3-Pentanone	**U**			0.100	"	"	"	"	"
Pentanal	**0.106**			0.100	"	"	"	"	"
1,2-Dichloropropane	**U**			0.100	"	"	"	"	"

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77 West Jackson Boulevard	Project Number: [none]	**Reported:**
Chicago IL, 60604	Project Manager: Jamie Paulin	Jun-19-17 17:03

Air Toxics by GC/MS, EPA TO-15 (modified)
US EPA Region 5 Chicago Regional Laboratory

4 (1705001-04) **Matrix: Air** **Sampled: May-04-17 13:50** **Received: May-05-17 10:30**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Trichloroethene	**U**			0.100	ppbv	1	B17E008	May-05-17	May-09-17
Bromodichloromethane	**U**			0.100	"	"	"	"	"
1,4-Dioxane	**U**			0.100	"	"	"	"	"
cis-1,3-Dichloropropene	**U**			0.100	"	"	"	"	"
4-Methyl-2-pentanone	**1.60**			0.100	"	"	"	"	"
trans-1,3-Dichloropropene	**U**			0.100	"	"	"	"	"
1,1,2-Trichloroethane	**U**			0.100	"	"	"	"	"
Dibromochloromethane	**U**			0.100	"	"	"	"	"
3-Hexanone	**U**			0.100	"	"	"	"	"
2-Hexanone	**U**			0.100	"	"	"	"	"
Hexanal	**0.212**			0.100	"	"	"	"	"
1,2-Dibromoethane (EDB)	**U**			0.100	"	"	"	"	"
Tetrachloroethene	**0.436**			0.100	"	"	"	"	"
Chlorobenzene	**U**			0.100	"	"	"	"	"
Ethylbenzene	**0.954**			0.100	"	"	"	"	"
m+p-Xylene	**3.23**			0.200	"	"	"	"	"
Bromoform	**U**			0.100	"	"	"	"	"
Styrene	**0.139**			0.100	"	"	"	"	"
1,1,2,2-Tetrachloroethane	**U**			0.100	"	"	"	"	"
o-Xylene	**0.925**			0.100	"	"	"	"	"
1,3,5-Trimethylbenzene	**U**			0.100	"	"	"	"	"
1,2,4-Trimethylbenzene	**0.330**			0.100	"	"	"	"	"
1,3-Dichlorobenzene	**U**			0.100	"	"	"	"	"
Benzyl chloride	**U**			0.100	"	"	"	"	"
1,4-Dichlorobenzene	**U**			0.100	"	"	"	"	"
1,2,3-Trimethylbenzene	**0.110**			0.100	"	"	"	"	"
1,2-Dichlorobenzene	**U**			0.100	"	"	"	"	"
Hexachlorobutadiene	**U**			0.100	"	"	"	"	"
1,2,4-Trichlorobenzene	**U**			0.100	"	"	"	"	"
Naphthalene	**U**			0.100	"	"	"	"	"

Surogate	Result	%REC	%REC Limits	Batch	Prepared	Analyzed
Dichlorodifluoromethane	0.487	*95%*	*70-130*	"	"	"
Dichlorotetrafluoroethane	0.0180	*90%*	*60-140*	"	"	"
Trichlorofluoromethane	0.237	*101%*	*70-130*	"	"	"

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77 West Jackson Boulevard	Project Number: [none]	**Reported:**
Chicago IL, 60604	Project Manager: Jamie Paulin	Jun-19-17 17:03

Air Toxics by GC/MS, EPA TO-15 (modified)
US EPA Region 5 Chicago Regional Laboratory

4 (1705001-04) **Matrix: Air** **Sampled: May-04-17 13:50** **Received: May-05-17 10:30**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed

Surogate	Result	%REC	%REC Limits	Batch	Prepared	Analyzed
1,1,2-trichloro-1,2,2-trifluoroethane (Freon 113)	0.0816	*113%*	*70-130*	*B17E008*	*May-05-17*	*May-09-17*
1,1,1-Trichloroethane	2.78E-3	*70%*	*50-150*	*"*	*"*	*"*
Carbon tetrachloride	0.0846	*102%*	*70-130*	*"*	*"*	*"*

4 (1705001-04RE1) **Matrix: Air** **Sampled: May-04-17 13:50** **Received: May-05-17 10:30**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Methanol	**28.4**	(ICV), B, J		5.00	ppbv	1	B17E008	May-05-17	May-09-17
Ethanol	**17.3**	(ICAL), (ICV), J		5.00	"	"	"	"	"
Acetone	**25.3**	B, (ICV), J		1.00	"	"	"	"	"
Methylene chloride	**3.71**			1.00	"	"	"	"	"
2-Butanone	**19.3**			1.00	"	"	"	"	"
Toluene	**5.15**			1.00	"	"	"	"	"

Surogate	Result	%REC	%REC Limits	Batch	Prepared	Analyzed
Dichlorodifluoromethane	0.558	*109%*	*70-130*	*"*	*"*	*"*
Dichlorotetrafluoroethane	0.0278	*139%*	*60-140*	*"*	*"*	*"*
Trichlorofluoromethane	0.283	*121%*	*70-130*	*"*	*"*	*"*
1,1,2-trichloro-1,2,2-trifluoroethane (Freon 113)	0.0928	*129%*	*70-130*	*"*	*"*	*"*
Carbon tetrachloride	0.0939	*113%*	*70-130*	*"*	*"*	*"*

5 (1705001-05) **Matrix: Air** **Sampled: May-04-17 13:54** **Received: May-05-17 10:30**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Chlorodifluoromethane (HCFC-22) (R-22)	**U**			0.100	ppbv	1	B17E008	May-05-17	May-09-17
Propene	**0.396**	MI, (ICV), J		0.100	"	"	"	"	"
Chloromethane	**0.616**			0.100	"	"	"	"	"
Methanol	**3.21**	(ICV), B, J		0.500	"	"	"	"	"
Vinyl chloride	**U**			0.100	"	"	"	"	"
Isobutene	**U**			0.100	"	"	"	"	"
1,3-butadiene	**U**			0.100	"	"	"	"	"
Acetaldehyde	**Rejected**	(ICAL), (ICV)		5.00	"	"	"	"	"

Environmental Protection Agency Region5
Chicago Regional Laboratory
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RCRA, LCD, US EPA Region 5	Project: Mid America Steel Drum, Inc.	
77 West Jackson Boulevard	Project Number: [none]	**Reported:**
Chicago IL, 60604	Project Manager: Jamie Paulin	Jun-19-17 17:03

Air Toxics by GC/MS, EPA TO-15 (modified)
US EPA Region 5 Chicago Regional Laboratory

5 (1705001-05) **Matrix: Air** **Sampled: May-04-17 13:54** **Received: May-05-17 10:30**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Bromomethane	**U**			0.100	ppbv	1	B17E008	May-05-17	May-09-17
Chloroethane	**U**			0.100	"	"	"	"	"
Ethanol	**1.67**	(ICAL), (ICV), J		0.500	"	"	"	"	"
Acrolein	**U**			0.100	"	"	"	"	"
Acetonitrile	**U**			0.100	"	"	"	"	"
Isopropyl alcohol	**U**	(ICV), J		0.500	"	"	"	"	"
Propanal	**0.145**			0.100	"	"	"	"	"
Acetone	**1.58**	B, (ICV), J		0.100	"	"	"	"	"
Pentane	**U**			0.100	"	"	"	"	"
Isoprene	**U**			0.100	"	"	"	"	"
1,1-Dichloroethene	**U**			0.100	"	"	"	"	"
Methyl iodide	**U**			0.100	"	"	"	"	"
Acrylonitrile	**U**			0.100	"	"	"	"	"
Methylene chloride	**0.236**			0.100	"	"	"	"	"
Carbon disulfide	**U**			0.100	"	"	"	"	"
1-Propanol	**U**			0.500	"	"	"	"	"
Cyclopentane	**U**			0.100	"	"	"	"	"
Methyl tert-butyl ether	**U**			0.100	"	"	"	"	"
Methacrolein	**U**			0.100	"	"	"	"	"
1,1-Dichloroethane	**U**			0.100	"	"	"	"	"
Vinyl acetate	**U**			0.100	"	"	"	"	"
Methyl vinyl ketone	**U**			0.100	"	"	"	"	"
Butanal	**U**	(ICV), B, J		0.100	"	"	"	"	"
Hexane	**U**			0.100	"	"	"	"	"
2-Butanone	**0.173**			0.100	"	"	"	"	"
cis-1,2-Dichloroethene	**U**			0.100	"	"	"	"	"
trans-1,2-Dichloroethene	**U**			0.100	"	"	"	"	"
Chloroform	**U**			0.100	"	"	"	"	"
1,2-Dichloroethane	**U**			0.100	"	"	"	"	"
1-Butanol	**U**			0.500	"	"	"	"	"
Cyclohexane	**U**			0.250	"	"	"	"	"
Benzene	**U**			0.100	"	"	"	"	"
2-Pentanone	**U**			0.100	"	"	"	"	"
Pentanal	**U**			0.100	"	"	"	"	"

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RCRA, LCD, US EPA Region 5	Project: Mid America Steel Drum, Inc.	
77 West Jackson Boulevard	Project Number: [none]	**Reported:**
Chicago IL, 60604	Project Manager: Jamie Paulin	Jun-19-17 17:03

Air Toxics by GC/MS, EPA TO-15 (modified)
US EPA Region 5 Chicago Regional Laboratory

5 (1705001-05) **Matrix: Air** **Sampled: May-04-17 13:54** **Received: May-05-17 10:30**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
3-Pentanone	**U**			0.100	ppbv	1	B17E008	May-05-17	May-09-17
1,2-Dichloropropane	**U**			0.100	"	"	"	"	"
Trichloroethene	**U**			0.100	"	"	"	"	"
Bromodichloromethane	**U**			0.100	"	"	"	"	"
1,4-Dioxane	**U**			0.100	"	"	"	"	"
cis-1,3-Dichloropropene	**U**			0.100	"	"	"	"	"
4-Methyl-2-pentanone	**U**			0.100	"	"	"	"	"
trans-1,3-Dichloropropene	**U**			0.100	"	"	"	"	"
1,1,2-Trichloroethane	**U**			0.100	"	"	"	"	"
Dibromochloromethane	**U**			0.100	"	"	"	"	"
Toluene	**0.102**			0.100	"	"	"	"	"
3-Hexanone	**U**			0.100	"	"	"	"	"
2-Hexanone	**U**			0.100	"	"	"	"	"
Hexanal	**0.854**			0.100	"	"	"	"	"
1,2-Dibromoethane (EDB)	**U**			0.100	"	"	"	"	"
Tetrachloroethene	**U**			0.100	"	"	"	"	"
Chlorobenzene	**U**			0.100	"	"	"	"	"
Ethylbenzene	**U**			0.100	"	"	"	"	"
m+p-Xylene	**U**			0.200	"	"	"	"	"
Bromoform	**U**			0.100	"	"	"	"	"
Styrene	**U**			0.100	"	"	"	"	"
1,1,2,2-Tetrachloroethane	**U**			0.100	"	"	"	"	"
o-Xylene	**U**			0.100	"	"	"	"	"
1,3,5-Trimethylbenzene	**U**			0.100	"	"	"	"	"
1,2,4-Trimethylbenzene	**U**			0.100	"	"	"	"	"
1,3-Dichlorobenzene	**U**			0.100	"	"	"	"	"
Benzyl chloride	**U**			0.100	"	"	"	"	"
1,4-Dichlorobenzene	**U**			0.100	"	"	"	"	"
1,2,3-Trimethylbenzene	**U**			0.100	"	"	"	"	"
1,2-Dichlorobenzene	**U**			0.100	"	"	"	"	"
Hexachlorobutadiene	**U**			0.100	"	"	"	"	"
1,2,4-Trichlorobenzene	**U**			0.100	"	"	"	"	"
Naphthalene	**U**			0.100	"	"	"	"	"

Surogate	Result	%REC	%REC Limits	Batch	Prepared	Analyzed

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RCRA, LCD, US EPA Region 5	Project: Mid America Steel Drum, Inc.	
77 West Jackson Boulevard	Project Number: [none]	**Reported:**
Chicago IL, 60604	Project Manager: Jamie Paulin	Jun-19-17 17:03

Air Toxics by GC/MS, EPA TO-15 (modified)
US EPA Region 5 Chicago Regional Laboratory

5 (1705001-05) **Matrix: Air** **Sampled: May-04-17 13:54** **Received: May-05-17 10:30**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed

Surogate	Result	%REC	%REC Limits	Batch	Prepared	Analyzed
Dichlorodifluoromethane	0.543	*106%*	*70-130*	*B17E008*	*May-05-17*	*May-09-17*
Dichlorotetrafluoroethane	0.0205	*102%*	*60-140*	"	"	"
Trichlorofluoromethane	0.237	*101%*	*70-130*	"	"	"
1,1,2-trichloro-1,2,2-trifluoroethane (Freon 113)	0.0789	*110%*	*70-130*	"	"	"
1,1,1-Trichloroethane	3.46E-3	*86%*	*50-150*	"	"	"
Carbon tetrachloride	0.0861	*104%*	*70-130*	"	"	"

5 (1705001-05RE1) **Matrix: Air** **Sampled: May-04-17 13:54** **Received: May-05-17 10:30**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed

Surogate	Result	%REC	%REC Limits	Batch	Prepared	Analyzed
Dichlorodifluoromethane	0.573	*112%*	*70-130*	*B17E008*	*May-05-17*	*May-09-17*
Dichlorotetrafluoroethane	0.0238	*119%*	*60-140*	"	"	"
Trichlorofluoromethane	0.282	*120%*	*70-130*	"	"	"
1,1,2-trichloro-1,2,2-trifluoroethane (Freon 113)	0.116	Q *162%*	*70-130*	"	"	"
Carbon tetrachloride	0.0917	*110%*	*70-130*	"	"	"

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77 West Jackson Boulevard	Project Number: [none]	Reported:
Chicago IL, 60604	Project Manager: Jamie Paulin	Jun-19-17 17:03

Air Toxics by GC/MS, EPA TO-15 (modified) - Quality Control
US EPA Region 5 Chicago Regional Laboratory

Batch B17E008 - ColdTrap Dehydration

Blank (B17E008-BLK1) Prepared: May-08-17 Analyzed: May-09-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Chlorodifluoromethane (HCFC-22) (R-22)	U			0.100	ppbv						
Propene	U	(ICV), J		0.100	"						
Chloromethane	U			0.100	"						
Methanol	1.75	(ICV), B, Q		0.500	"						
Vinyl chloride	U			0.100	"						
Isobutene	U			0.100	"						
1,3-butadiene	U			0.100	"						
Acetaldehyde	Rejected	(ICAL), (ICV)		5.00	"						
Bromomethane	U			0.100	"						
Chloroethane	U			0.100	"						
Ethanol	U	(ICAL), (ICV), J		0.500	"						
Acrolein	U			0.100	"						
Acetonitrile	U			0.100	"						
Isopropyl alcohol	U	(ICV), J		0.500	"						
Propanal	U			0.100	"						
Acetone	0.122	(ICV), J, Q		0.100	"						
Pentane	U			0.100	"						
Isoprene	U			0.100	"						
1,1-Dichloroethene	U			0.100	"						
Methyl iodide	U			0.100	"						
Acrylonitrile	U			0.100	"						
Methylene chloride	U			0.100	"						
Carbon disulfide	U			0.100	"						
1-Propanol	U			0.500	"						

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RCRA, LCD, US EPA Region 5	Project: Mid America Steel Drum, Inc.	
77 West Jackson Boulevard	Project Number: [none]	Reported:
Chicago IL, 60604	Project Manager: Jamie Paulin	Jun-19-17 17:03

Air Toxics by GC/MS, EPA TO-15 (modified) - Quality Control
US EPA Region 5 Chicago Regional Laboratory

Batch B17E008 - ColdTrap Dehydration

Blank (B17E008-BLK1) Prepared: May-08-17 Analyzed: May-09-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Cyclopentane	U			0.100	ppbv						
Methyl tert-butyl ether	U			0.100	"						
Methacrolein	U			0.100	"						
1,1-Dichloroethane	U			0.100	"						
Vinyl acetate	U			0.100	"						
Methyl vinyl ketone	U			0.100	"						
Butanal	U	(ICV), J		0.100	"						
Hexane	U			0.100	"						
2-Butanone	U			0.100	"						
cis-1,2-Dichloroethene	U			0.100	"						
trans-1,2-Dichloroethene	U			0.100	"						
Chloroform	U			0.100	"						
1,2-Dichloroethane	U			0.100	"						
1-Butanol	U			0.500	"						
Cyclohexane	U			0.250	"						
Benzene	U			0.100	"						
2-Pentanone	U			0.100	"						
Pentanal	U			0.100	"						
3-Pentanone	U			0.100	"						
1,2-Dichloropropane	U			0.100	"						
Trichloroethene	U			0.100	"						
Bromodichloromethane	U			0.100	"						
1,4-Dioxane	U			0.100	"						
cis-1,3-Dichloropropene	U			0.100	"						
4-Methyl-2-pentanone	U			0.100	"						
trans-1,3-Dichloropropene	U			0.100	"						
1,1,2-Trichloroethane	U			0.100	"						
Dibromochloromethane	U			0.100	"						
Toluene	U			0.100	"						
3-Hexanone	U			0.100	"						

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77 West Jackson Boulevard	Project Number: [none]	**Reported:**
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Air Toxics by GC/MS, EPA TO-15 (modified) - Quality Control
US EPA Region 5 Chicago Regional Laboratory

Batch B17E008 - ColdTrap Dehydration

Blank (B17E008-BLK1) **Prepared: May-08-17 Analyzed: May-09-17**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
2-Hexanone	U			0.100	ppbv						
Hexanal	U			0.100	"						
1,2-Dibromoethane (EDB)	U			0.100	"						
Tetrachloroethene	U			0.100	"						
Chlorobenzene	U			0.100	"						
Ethylbenzene	U			0.100	"						
m+p-Xylene	U			0.200	"						
Bromoform	U			0.100	"						
Styrene	U			0.100	"						
1,1,2,2-Tetrachloroethane	U			0.100	"						
o-Xylene	U			0.100	"						
1,3,5-Trimethylbenzene	U			0.100	"						
1,2,4-Trimethylbenzene	U			0.100	"						
1,3-Dichlorobenzene	U			0.100	"						
Benzyl chloride	U			0.100	"						
1,4-Dichlorobenzene	U			0.100	"						
1,2,3-Trimethylbenzene	U			0.100	"						
1,2-Dichlorobenzene	U			0.100	"						
Hexachlorobutadiene	U			0.100	"						
1,2,4-Trichlorobenzene	U			0.100	"						
Naphthalene	U			0.100	"						
Surrogate: Dichlorodifluoromethane	*U*	Q		0.0500	"	*0.5100*		*0.8%*	*70-130*		
Surrogate: Dichlorotetrafluoroethane	*U*	Q		2.00E-3	"	*2.000E-2*		*%*	*60-140*		
Surrogate: Trichlorofluoromethane	*U*	Q		0.0200	"	*0.2350*		*%*	*70-130*		
Surrogate: 1,1,2-trichloro-1,2,2-trifluoroethane (Freon	*U*	Q		5.00E-3	"	*7.200E-2*		*%*	*70-130*		
Surrogate: 1,1,1-Trichloroethane	*U*	Q		2.50E-3	"	*4.000E-3*		*%*	*50-150*		
Surrogate: Carbon tetrachloride	*U*	Q		5.00E-3	"	*8.300E-2*		*%*	*70-130*		

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RCRA, LCD, US EPA Region 5	Project: Mid America Steel Drum, Inc.	
77 West Jackson Boulevard	Project Number: [none]	Reported:
Chicago IL, 60604	Project Manager: Jamie Paulin	Jun-19-17 17:03

Air Toxics by GC/MS, EPA TO-15 (modified) - Quality Control
US EPA Region 5 Chicago Regional Laboratory

Batch B17E008 - ColdTrap Dehydration

LCS (B17E008-BS1) Prepared: May-08-17 Analyzed: May-09-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Propene	0.658	(ICV), J		0.100	ppbv	0.5370		122%	70-130		
Chloromethane	0.570			0.100	"	0.5490		104%	70-130		
Methanol	0.612	(ICV), B		0.500	"	0.5170		118%	60-140		
Vinyl chloride	0.544			0.100	"	0.5370		101%	70-130		
Isobutene	0.517			0.100	"	0.5300		98%	70-130		
1,3-butadiene	0.528			0.100	"	0.5450		97%	70-130		
Acetaldehyde	Rejected	(ICAL), (ICV), Q		5.00	"	0.5390		147%	60-140		
Bromomethane	0.588			0.100	"	0.5540		106%	70-130		
Chloroethane	0.541			0.100	"	0.5510		98%	70-130		
Ethanol	0.653	(ICAL), (ICV), B, J		0.500	"	0.5060		129%	60-140		
Acrolein	0.500			0.100	"	0.5180		96%	60-140		
Acetonitrile	0.487			0.100	"	0.5050		96%	60-140		
Isopropyl alcohol	0.523	(ICV), J		0.500	"	0.5000		105%	60-140		
Propanal	0.508			0.100	"	0.5220		97%	60-140		
Acetone	0.518	(ICV), B, J		0.100	"	0.5410		96%	60-140		
Pentane	0.549			0.100	"	0.5600		98%	70-130		
Isoprene	0.529			0.100	"	0.5420		98%	70-130		
1,1-Dichloroethene	0.520			0.100	"	0.5220		100%	70-130		
Methyl iodide	0.511			0.100	"	0.5340		96%	70-130		
Acrylonitrile	0.505			0.100	"	0.5010		101%	60-140		
Methylene chloride	0.488			0.100	"	0.5000		98%	70-130		
Carbon disulfide	0.506			0.100	"	0.4990		101%	60-140		
Cyclopentane	0.465			0.100	"	0.4940		94%	70-130		
Methyl tert-butyl ether	0.482			0.100	"	0.5040		96%	60-140		
Methacrolein	0.433			0.100	"	0.4790		90%	60-140		
1,1-Dichloroethane	0.486			0.100	"	0.4950		98%	70-130		
Vinyl acetate	0.488			0.100	"	0.4950		99%	60-140		
Methyl vinyl ketone	0.495			0.100	"	0.4920		101%	60-140		
Butanal	0.460	(ICV), J		0.100	"	0.4790		96%	60-140		

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RCRA, LCD, US EPA Region 5	Project: Mid America Steel Drum, Inc.	
77 West Jackson Boulevard	Project Number: [none]	Reported:
Chicago IL, 60604	Project Manager: Jamie Paulin	Jun-19-17 17:03

Air Toxics by GC/MS, EPA TO-15 (modified) - Quality Control
US EPA Region 5 Chicago Regional Laboratory

Batch B17E008 - ColdTrap Dehydration

LCS (B17E008-BS1) **Prepared: May-08-17 Analyzed: May-09-17**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Hexane	0.480			0.100	ppbv	0.4970		96%	70-130		
2-Butanone	0.504			0.100	"	0.5230		96%	60-140		
cis-1,2-Dichloroethene	0.509			0.100	"	0.4960		103%	70-130		
trans-1,2-Dichloroethene	0.502			0.100	"	0.5060		99%	70-130		
Chloroform	0.508			0.100	"	0.5110		99%	70-130		
1,2-Dichloroethane	0.490			0.100	"	0.4950		99%	70-130		
1-Butanol	0.526			0.500	"	0.5030		104%	60-140		
Cyclohexane	0.501			0.250	"	0.5050		99%	70-130		
Benzene	0.486			0.100	"	0.5040		96%	70-130		
2-Pentanone	0.450			0.100	"	0.5020		90%	60-140		
3-Pentanone	0.449			0.100	"	0.5070		89%	60-140		
Pentanal	0.428			0.100	"	0.4940		87%	60-140		
1,2-Dichloropropane	0.492			0.100	"	0.5010		98%	70-130		
Trichloroethene	0.416			0.100	"	0.5010		83%	70-130		
Bromodichloromethane	0.511			0.100	"	0.5240		97%	70-130		
1,4-Dioxane	0.530			0.100	"	0.5300		100%	60-140		
cis-1,3-Dichloropropene	0.479			0.100	"	0.5100		94%	70-130		
4-Methyl-2-pentanone	0.442			0.100	"	0.5020		88%	60-140		
trans-1,3-Dichloropropene	0.487			0.100	"	0.5130		95%	70-130		
1,1,2-Trichloroethane	0.492			0.100	"	0.5020		98%	70-130		
Dibromochloromethane	0.494			0.100	"				70-130		
Toluene	0.454			0.100	"	0.4920		92%	70-130		
3-Hexanone	0.444			0.100	"	0.5050		88%	60-140		
2-Hexanone	0.419			0.100	"	0.4950		85%	60-140		
Hexanal	0.428			0.100	"	0.5010		85%	60-140		
1,2-Dibromoethane (EDB)	0.485			0.100	"	0.5080		96%	70-130		
Tetrachloroethene	0.495			0.100	"	0.4990		99%	70-130		
Chlorobenzene	0.461			0.100	"	0.5070		91%	70-130		
Ethylbenzene	0.430			0.100	"	0.4890		88%	70-130		
m+p-Xylene	0.969			0.200	"	0.9850		98%	70-130		

Environmental Protection Agency Region5
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RCRA, LCD, US EPA Region 5	Project: Mid America Steel Drum, Inc.	
77 West Jackson Boulevard	Project Number: [none]	Reported:
Chicago IL, 60604	Project Manager: Jamie Paulin	Jun-19-17 17:03

Air Toxics by GC/MS, EPA TO-15 (modified) - Quality Control
US EPA Region 5 Chicago Regional Laboratory

Batch B17E008 - ColdTrap Dehydration

LCS (B17E008-BS1) Prepared: May-08-17 Analyzed: May-09-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Bromoform	**0.517**			0.100	ppbv	0.5240		99%	70-130		
Styrene	**0.491**			0.100	"	0.5020		98%	70-130		
1,1,2,2-Tetrachloroethane	**0.462**			0.100	"	0.5070		91%	70-130		
o-Xylene	**0.439**			0.100	"	0.4860		90%	70-130		
1,3,5-Trimethylbenzene	**0.489**			0.100	"	0.5030		97%	70-130		
1,2,4-Trimethylbenzene	**0.504**			0.100	"	0.5020		100%	70-130		
1,3-Dichlorobenzene	**0.487**			0.100	"	0.4980		98%	70-130		
Benzyl chloride	**0.460**			0.100	"	0.5150		89%	70-130		
1,4-Dichlorobenzene	**0.500**			0.100	"	0.5260		95%	70-130		
1,2,3-Trimethylbenzene	**0.434**			0.100	"	0.4380		99%	70-130		
1,2-Dichlorobenzene	**0.476**			0.100	"	0.5140		93%	70-130		
Hexachlorobutadiene	**0.467**			0.100	"	0.4890		95%	70-130		
1,2,4-Trichlorobenzene	**0.506**			0.100	"	0.5120		99%	70-130		
Naphthalene	**0.502**			0.100	"	0.5130		98%	70-130		
Surrogate: Dichlorodifluoromethane	*0.532*			0.0500	"	*0.5210*		*102%*	*70-130*		
Surrogate: Dichlorotetrafluoroethane	*0.521*			2.00E-3	"	*0.5250*		*99%*	*70-130*		
Surrogate: Trichlorofluoromethane	*0.534*			0.0200	"	*0.5370*		*99%*	*70-130*		
Surrogate: 1,1,2-trichloro-1,2,2-trifluoroethane (Freon	*0.504*			5.00E-3	"	*0.5250*		*96%*	*70-130*		
Surrogate: 1,1,1-Trichloroethane	*0.505*			2.50E-3	"	*0.5080*		*99%*	*70-130*		
Surrogate: Carbon tetrachloride	*0.498*			5.00E-3	"	*0.5000*		*100%*	*70-130*		

LCS Dup (B17E008-BSD1) Prepared: May-08-17 Analyzed: May-09-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Propene	**0.619**	(ICV), J		0.100	ppbv	0.5370		115%	70-130	6	30
Chloromethane	**0.550**			0.100	"	0.5490		100%	70-130	4	30
Methanol	**0.575**	(ICV), B		0.500	"	0.5170		111%	60-140	6	40
Vinyl chloride	**0.520**			0.100	"	0.5370		97%	70-130	5	30
Isobutene	**0.568**			0.100	"	0.5300		107%	70-130	9	30
1,3-butadiene	**0.497**			0.100	"	0.5450		91%	70-130	6	30
Acetaldehyde	**Rejected**	(ICAL), (ICV)		5.00	"	0.5390		133%	60-140	10	40

Environmental Protection Agency Region5
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RCRA, LCD, US EPA Region 5	Project: Mid America Steel Drum, Inc.	
77 West Jackson Boulevard	Project Number: [none]	Reported:
Chicago IL, 60604	Project Manager: Jamie Paulin	Jun-19-17 17:03

Air Toxics by GC/MS, EPA TO-15 (modified) - Quality Control
US EPA Region 5 Chicago Regional Laboratory

Batch B17E008 - ColdTrap Dehydration

LCS Dup (B17E008-BSD1) **Prepared: May-08-17 Analyzed: May-09-17**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Bromomethane	0.559			0.100	ppbv	0.5540		101%	70-130	5	30
Chloroethane	0.538			0.100	"	0.5510		98%	70-130	0.6	30
Ethanol	0.658	(ICAL), (ICV), B, J		0.500	"	0.5060		130%	60-140	0.8	40
Acrolein	0.491			0.100	"	0.5180		95%	60-140	2	40
Acetonitrile	0.485			0.100	"	0.5050		96%	60-140	0.4	40
Isopropyl alcohol	0.526	(ICV), J		0.500	"	0.5000		105%	60-140	0.7	40
Propanal	0.499			0.100	"	0.5220		96%	60-140	2	40
Acetone	0.513	(ICV), B, J		0.100	"	0.5410		95%	60-140	1	40
Pentane	0.538			0.100	"	0.5600		96%	70-130	2	30
Isoprene	0.525			0.100	"	0.5420		97%	70-130	0.7	30
1,1-Dichloroethene	0.515			0.100	"	0.5220		99%	70-130	0.8	30
Methyl iodide	0.506			0.100	"	0.5340		95%	70-130	1	30
Acrylonitrile	0.490			0.100	"	0.5010		98%	60-140	3	40
Methylene chloride	0.491			0.100	"	0.5000		98%	70-130	0.4	30
Carbon disulfide	0.509			0.100	"	0.4990		102%	60-140	0.6	40
Cyclopentane	0.463			0.100	"	0.4940		94%	70-130	0.4	30
Methyl tert-butyl ether	0.478			0.100	"	0.5040		95%	60-140	0.9	40
Methacrolein	0.448			0.100	"	0.4790		94%	60-140	4	40
1,1-Dichloroethane	0.481			0.100	"	0.4950		97%	70-130	1	30
Vinyl acetate	0.498			0.100	"	0.4950		101%	60-140	2	40
Methyl vinyl ketone	0.468			0.100	"	0.4920		95%	60-140	5	40
Butanal	0.465	(ICV), J		0.100	"	0.4790		97%	60-140	1	40
Hexane	0.465			0.100	"	0.4970		93%	70-130	3	30
2-Butanone	0.507			0.100	"	0.5230		97%	60-140	0.6	40
cis-1,2-Dichloroethene	0.528			0.100	"	0.4960		106%	70-130	4	30
trans-1,2-Dichloroethene	0.497			0.100	"	0.5060		98%	70-130	1	30
Chloroform	0.511			0.100	"	0.5110		100%	70-130	0.7	30
1,2-Dichloroethane	0.481			0.100	"	0.4950		97%	70-130	2	30
1-Butanol	0.524			0.500	"	0.5030		104%	60-140	0.3	40
Cyclohexane	0.499			0.250	"	0.5050		99%	70-130	0.2	30

Environmental Protection Agency Region5
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RCRA, LCD, US EPA Region 5	Project: Mid America Steel Drum, Inc.	
77 West Jackson Boulevard	Project Number: [none]	Reported:
Chicago IL, 60604	Project Manager: Jamie Paulin	Jun-19-17 17:03

Air Toxics by GC/MS, EPA TO-15 (modified) - Quality Control
US EPA Region 5 Chicago Regional Laboratory

Batch B17E008 - ColdTrap Dehydration

LCS Dup (B17E008-BSD1) **Prepared: May-08-17 Analyzed: May-09-17**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Benzene	0.477			0.100	ppbv	0.5040		95%	70-130	2	30
2-Pentanone	0.448			0.100	"	0.5020		89%	60-140	0.5	40
Pentanal	0.482			0.100	"	0.4940		97%	60-140	12	40
3-Pentanone	0.438			0.100	"	0.5070		86%	60-140	3	40
1,2-Dichloropropane	0.476			0.100	"	0.5010		95%	70-130	3	30
Trichloroethene	0.411			0.100	"	0.5010		82%	70-130	1	30
Bromodichloromethane	0.502			0.100	"	0.5240		96%	70-130	2	30
1,4-Dioxane	0.526			0.100	"	0.5300		99%	60-140	0.9	40
cis-1,3-Dichloropropene	0.467			0.100	"	0.5100		92%	70-130	3	30
4-Methyl-2-pentanone	0.469			0.100	"	0.5020		93%	60-140	6	40
trans-1,3-Dichloropropene	0.475			0.100	"	0.5130		93%	70-130	2	30
1,1,2-Trichloroethane	0.484			0.100	"	0.5020		96%	70-130	2	30
Dibromochloromethane	0.480			0.100	"				70-130	3	30
Toluene	0.443			0.100	"	0.4920		90%	70-130	2	30
3-Hexanone	0.449			0.100	"	0.5050		89%	60-140	1	40
2-Hexanone	0.455			0.100	"	0.4950		92%	60-140	8	40
Hexanal	0.498			0.100	"	0.5010		99%	60-140	15	40
1,2-Dibromoethane (EDB)	0.476			0.100	"	0.5080		94%	70-130	2	30
Tetrachloroethene	0.493			0.100	"	0.4990		99%	70-130	0.3	30
Chlorobenzene	0.447			0.100	"	0.5070		88%	70-130	3	30
Ethylbenzene	0.415			0.100	"	0.4890		85%	70-130	4	30
m+p-Xylene	0.959			0.200	"	0.9850		97%	70-130	1	30
Bromoform	0.507			0.100	"	0.5240		97%	70-130	2	30
Styrene	0.486			0.100	"	0.5020		97%	70-130	0.9	30
1,1,2,2-Tetrachloroethane	0.447			0.100	"	0.5070		88%	70-130	3	30
o-Xylene	0.423			0.100	"	0.4860		87%	70-130	4	30
1,3,5-Trimethylbenzene	0.482			0.100	"	0.5030		96%	70-130	2	30
1,2,4-Trimethylbenzene	0.483			0.100	"	0.5020		96%	70-130	4	30
1,3-Dichlorobenzene	0.473			0.100	"	0.4980		95%	70-130	3	30
Benzyl chloride	0.452			0.100	"	0.5150		88%	70-130	2	30

Environmental Protection Agency Region5
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RCRA, LCD, US EPA Region 5	Project: Mid America Steel Drum, Inc.	
77 West Jackson Boulevard	Project Number: [none]	Reported:
Chicago IL, 60604	Project Manager: Jamie Paulin	Jun-19-17 17:03

Air Toxics by GC/MS, EPA TO-15 (modified) - Quality Control
US EPA Region 5 Chicago Regional Laboratory

Batch B17E008 - ColdTrap Dehydration

LCS Dup (B17E008-BSD1) Prepared: May-08-17 Analyzed: May-09-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
1,4-Dichlorobenzene	**0.490**			0.100	ppbv	0.5260		93%	70-130	2	30
1,2,3-Trimethylbenzene	**0.416**			0.100	"	0.4380		95%	70-130	4	30
1,2-Dichlorobenzene	**0.459**			0.100	"	0.5140		89%	70-130	4	30
Hexachlorobutadiene	**0.461**			0.100	"	0.4890		94%	70-130	1	30
1,2,4-Trichlorobenzene	**0.493**			0.100	"	0.5120		96%	70-130	3	30
Naphthalene	**0.489**			0.100	"	0.5130		95%	70-130	3	30
Surrogate: Dichlorodifluoromethane	*0.511*			0.0500	"	*0.5210*		*98%*	*70-130*		
Surrogate: Dichlorotetrafluoroethane	*0.502*			2.00E-3	"	*0.5250*		*96%*	*70-130*		
Surrogate: Trichlorofluoromethane	*0.532*			0.0200	"	*0.5370*		*99%*	*70-130*		
Surrogate: 1,1,2-trichloro-1,2,2-trifluoroethane (Freon	*0.499*			5.00E-3	"	*0.5250*		*95%*	*70-130*		
Surrogate: 1,1,1-Trichloroethane	*0.499*			2.50E-3	"	*0.5080*		*98%*	*70-130*		
Surrogate: Carbon tetrachloride	*0.497*			5.00E-3	"	*0.5000*		*99%*	*70-130*		

Duplicate (B17E008-DUP1) Source: 1705001-01 Prepared: May-08-17 Analyzed: May-09-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
methyl acetate	**1.00**	NJ			ppbv		1.00			0	
Chlorodifluoromethane (HCFC-22) (R-22)	**0.283**			0.100	"		0.288			2	30
Propene	**0.336**	(ICV), J, MI		0.100	"		0.340			1	30
Chloromethane	**0.570**			0.100	"		0.595			4	30
Methanol	**2.96**	J, (ICV), B		0.500	"		2.91			2	30
Vinyl chloride	**U**			0.100	"		U				30
Isobutene	**0.117**			0.100	"		0.116			1	30
1,3-butadiene	**7.15E-3**	Q		0.100	"		U			200	30
Acetaldehyde	**Rejected**	(ICAL), (ICV)		5.00	"		Rejected			6	30
Bromomethane	**8.72E-3**			0.100	"		8.99E-3			3	30
Chloroethane	**8.56E-3**			0.100	"		0.0106			21	30
Ethanol	**2.17**	(ICAL), (ICV), J		0.500	"		2.12			2	30
Acrolein	**0.0588**			0.100	"		0.0650			10	30
Acetonitrile	**0.0977**			0.100	"		0.0850			14	30

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RCRA, LCD, US EPA Region 5	Project: Mid America Steel Drum, Inc.	
77 West Jackson Boulevard	Project Number: [none]	Reported:
Chicago IL, 60604	Project Manager: Jamie Paulin	Jun-19-17 17:03

Air Toxics by GC/MS, EPA TO-15 (modified) - Quality Control
US EPA Region 5 Chicago Regional Laboratory

Batch B17E008 - ColdTrap Dehydration

Duplicate (B17E008-DUP1) Source: 1705001-01 Prepared: May-08-17 Analyzed: May-09-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Isopropyl alcohol	U	(ICV), J		0.500	ppbv		U				30
Propanal	0.160			0.100	"		0.162			0.9	30
Acetone	2.53	B, (ICV), J		0.100	"		2.58			2	30
Pentane	0.126			0.100	"		0.124			2	30
Isoprene	0.0375			0.100	"		0.0361			4	30
1,1-Dichloroethene	U			0.100	"		U				30
Methyl iodide	U			0.100	"		U				30
Acrylonitrile	U			0.100	"		U				30
Methylene chloride	0.345			0.100	"		0.346			0.5	30
Carbon disulfide	6.91E-3			0.100	"		5.96E-3			15	30
1-Propanol	U			0.500	"		U				30
Cyclopentane	U			0.100	"		U				30
Methyl tert-butyl ether	0.0146			0.100	"		0.0156			6	30
Methacrolein	0.0337			0.100	"		0.0423			23	30
1,1-Dichloroethane	U			0.100	"		U				30
Vinyl acetate	5.17E-3	Q		0.100	"		U			200	30
Methyl vinyl ketone	U			0.100	"		U				30
Butanal	0.117	(ICV), B, J		0.100	"		0.112			4	30
Hexane	U			0.100	"		U				30
2-Butanone	0.245			0.100	"		0.250			2	30
cis-1,2-Dichloroethene	U			0.100	"		U				30
trans-1,2-Dichloroethene	U			0.100	"		U				30
Chloroform	0.0191			0.100	"		0.0191			0.1	30
1,2-Dichloroethane	0.0172			0.100	"		0.0156			10	30
1-Butanol	U			0.500	"		U				30
Cyclohexane	U			0.250	"		U				30
Benzene	0.0719			0.100	"		0.0746			4	30
2-Pentanone	U			0.100	"		U				30
Pentanal	0.0587	Q		0.100	"		0.0818			33	30
3-Pentanone	U			0.100	"		U				30

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RCRA, LCD, US EPA Region 5	Project: Mid America Steel Drum, Inc.	
77 West Jackson Boulevard	Project Number: [none]	Reported:
Chicago IL, 60604	Project Manager: Jamie Paulin	Jun-19-17 17:03

Air Toxics by GC/MS, EPA TO-15 (modified) - Quality Control
US EPA Region 5 Chicago Regional Laboratory

Batch B17E008 - ColdTrap Dehydration

Duplicate (B17E008-DUP1) Source: 1705001-01 Prepared: May-08-17 Analyzed: May-09-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
1,2-Dichloropropane	5.62E-3	Q		0.100	ppbv		4.00E-3			34	30
Trichloroethene	U			0.100	"		U				30
Bromodichloromethane	U			0.100	"		U				30
1,4-Dioxane	U			0.100	"		U				30
cis-1,3-Dichloropropene	U			0.100	"		U				30
4-Methyl-2-pentanone	0.0316			0.100	"		0.0310			2	30
trans-1,3-Dichloropropene	U			0.100	"		U				30
1,1,2-Trichloroethane	U			0.100	"		U				30
Dibromochloromethane	U			0.100	"		U				30
Toluene	0.443			0.100	"		0.446			0.6	30
3-Hexanone	U			0.100	"		U				30
2-Hexanone	U	Q		0.100	"		0.0147			200	30
Hexanal	0.130			0.100	"		0.143			9	30
1,2-Dibromoethane (EDB)	U			0.100	"		U				30
Tetrachloroethene	2.86E-3			0.100	"		3.68E-3			25	30
Chlorobenzene	U			0.100	"		U				30
Ethylbenzene	0.0159			0.100	"		0.0163			2	30
m+p-Xylene	0.0684			0.200	"		0.0578			17	30
Bromoform	U			0.100	"		U				30
Styrene	0.0150			0.100	"		0.0153			2	30
1,1,2,2-Tetrachloroethane	U			0.100	"		U				30
o-Xylene	0.0165			0.100	"		0.0188			13	30
1,3,5-Trimethylbenzene	U			0.100	"		U				30
1,2,4-Trimethylbenzene	0.0101			0.100	"		8.96E-3			12	30
1,3-Dichlorobenzene	U			0.100	"		U				30
Benzyl chloride	U			0.100	"		U				30
1,4-Dichlorobenzene	U			0.100	"		U				30
1,2,3-Trimethylbenzene	U			0.100	"		U				30
1,2-Dichlorobenzene	U			0.100	"		U				30
Hexachlorobutadiene	U			0.100	"		U				30

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RCRA, LCD, US EPA Region 5	Project: Mid America Steel Drum, Inc.	
77 West Jackson Boulevard	Project Number: [none]	Reported:
Chicago IL, 60604	Project Manager: Jamie Paulin	Jun-19-17 17:03

Air Toxics by GC/MS, EPA TO-15 (modified) - Quality Control
US EPA Region 5 Chicago Regional Laboratory

Batch B17E008 - ColdTrap Dehydration

Duplicate (B17E008-DUP1) Source: 1705001-01 Prepared: May-08-17 Analyzed: May-09-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	**U**			0.100	ppbv		U				30
Naphthalene	**0.0139**			0.100	"		0.0111			22	30
Surrogate: Dichlorodifluoromethane	*0.502*			0.0500	"	*0.5100*		*98%*	*70-130*		
Surrogate: Dichlorotetrafluoroethane	*0.0194*			2.00E-3	"	*2.000E-2*		*97%*	*60-140*		
Surrogate: Trichlorofluoromethane	*0.238*			0.0200	"	*0.2350*		*101%*	*70-130*		
Surrogate: 1,1,2-trichloro-1,2,2-trifluoroethane (Freon	*0.0808*			5.00E-3	"	*7.200E-2*		*112%*	*70-130*		
Surrogate: 1,1,1-Trichloroethane	*2.58E-3*			2.50E-3	"	*4.000E-3*		*64%*	*50-150*		
Surrogate: Carbon tetrachloride	*0.0845*			5.00E-3	"	*8.300E-2*		*102%*	*70-130*		

Duplicate (B17E008-DUP2) Source: 1705001-01RE1 Prepared: May-08-17 Analyzed: May-09-17

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Methanol	**U**	(ICV), J		5.00	ppbv		U				30
Ethanol	**U**	J, (ICAL), (ICV), B		5.00	"		U				30
Acetone	**2.91**	(ICV), B, J		1.00	"		3.05			5	30
Surrogate: Dichlorotetrafluoroethane	*0.0220*	Q		0.0200	"	*0.2000*		*11%*	*60-140*		
Surrogate: 1,1,2-trichloro-1,2,2-trifluoroethane (Freon	*0.0997*	Q		0.0500	"	*0.7200*		*14%*	*70-130*		
Surrogate: Carbon tetrachloride	*0.117*	Q		0.0500	"	*0.8300*		*14%*	*70-130*		

Duplicate (B17E008-DUP3) Source: 1705001-02 Prepared: May-08-17 Analyzed: May-09-17 Qualifiers: (TUN)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Chlorodifluoromethane (HCFC-22) (R-22)	**0.272**			0.100	ppbv		0.275			1	30
Propene	**0.368**	(ICV), J, MI		0.100	"		0.368			0.003	30
Chloromethane	**0.563**			0.100	"		0.565			0.5	30
Methanol	**50.1**	B, (ICV), J		0.500	"		50.4			0.6	30
Vinyl chloride	**U**			0.100	"		U				30
Isobutene	**0.0816**			0.100	"		0.0794			3	30
1,3-butadiene	**8.94E-3**			0.100	"		0.0114			24	30
Acetaldehyde	**Rejected**	(ICAL), (ICV)		5.00	"		Rejected			3	30

Environmental Protection Agency Region5
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RCRA, LCD, US EPA Region 5	Project: Mid America Steel Drum, Inc.	
77 West Jackson Boulevard	Project Number: [none]	Reported:
Chicago IL, 60604	Project Manager: Jamie Paulin	Jun-19-17 17:03

Air Toxics by GC/MS, EPA TO-15 (modified) - Quality Control
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Batch B17E008 - ColdTrap Dehydration

Duplicate (B17E008-DUP3) Source: 1705001-02 Prepared: May-08-17 Analyzed: May-09-17 Qualifiers: (TUN)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Bromomethane	8.53E-3	Q		0.100	ppbv		U			200	30
Chloroethane	U	Q		0.100	"		0.0177			200	30
Ethanol	16.8	(ICV), J, (ICAL)		0.500	"		16.8			0.5	30
Acrolein	0.0999			0.100	"		0.0946			5	30
Acetonitrile	0.138			0.100	"		0.142			3	30
Isopropyl alcohol	1.93	(ICV), J		0.500	"		2.04			6	30
Propanal	0.305			0.100	"		0.309			1	30
Acetone	16.9	B, (ICV), J		0.100	"		16.6			2	30
Pentane	0.0866			0.100	"		0.0839			3	30
Isoprene	3.59E-3	Q		0.100	"		U			200	30
1,1-Dichloroethene	U			0.100	"		U				30
Methyl iodide	U			0.100	"		U				30
Acrylonitrile	U			0.100	"		U				30
Methylene chloride	10.2	J		0.100	"		10.1			0.2	30
Carbon disulfide	5.49E-3			0.100	"		7.09E-3			25	30
1-Propanol	U			0.500	"		U				30
Cyclopentane	U			0.100	"		U				30
Methyl tert-butyl ether	9.83E-3	Q		0.100	"		U			200	30
Methacrolein	0.0545			0.100	"		0.0497			9	30
1,1-Dichloroethane	U	Q		0.100	"		2.75E-3			200	30
Vinyl acetate	U	Q		0.100	"		0.0100			200	30
Methyl vinyl ketone	U	Q		0.100	"		0.0498			200	30
Butanal	0.344	(ICV), B, J		0.100	"		0.352			2	30
Hexane	0.0371	Q		0.100	"		U			200	30
2-Butanone	0.284			0.100	"		0.289			1	30
cis-1,2-Dichloroethene	0.0193	Q		0.100	"		U			200	30
trans-1,2-Dichloroethene	U			0.100	"		U				30
Chloroform	0.0199	Q		0.100	"		U			200	30
1,2-Dichloroethane	0.0169			0.100	"		0.0170			0.3	30
1-Butanol	U			0.500	"		U				30

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RCRA, LCD, US EPA Region 5	Project: Mid America Steel Drum, Inc.	
77 West Jackson Boulevard	Project Number: [none]	Reported:
Chicago IL, 60604	Project Manager: Jamie Paulin	Jun-19-17 17:03

Air Toxics by GC/MS, EPA TO-15 (modified) - Quality Control
US EPA Region 5 Chicago Regional Laboratory

Batch B17E008 - ColdTrap Dehydration

Duplicate (B17E008-DUP3) Source: 1705001-02 Prepared: May-08-17 Analyzed: May-09-17 Qualifiers: (TUN)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Cyclohexane	U			0.250	ppbv		U				30
Benzene	0.0977			0.100	"		0.102			4	30
2-Pentanone	U			0.100	"		U				30
Pentanal	0.120			0.100	"		0.115			5	30
3-Pentanone	U			0.100	"		U				30
1,2-Dichloropropane	U	Q		0.100	"		4.87E-3			200	30
Trichloroethene	3.99E-3	Q		0.100	"		U			200	30
Bromodichloromethane	U			0.100	"		U				30
1,4-Dioxane	4.35E-3	Q		0.100	"		U			200	30
cis-1,3-Dichloropropene	U			0.100	"		U				30
4-Methyl-2-pentanone	0.0313			0.100	"		0.0366			16	30
trans-1,3-Dichloropropene	U			0.100	"		U				30
1,1,2-Trichloroethane	U			0.100	"		U				30
Dibromochloromethane	U			0.100	"		U				30
Toluene	0.881			0.100	"		0.901			2	30
3-Hexanone	U			0.100	"		U				30
2-Hexanone	U	Q		0.100	"		0.0304			200	30
Hexanal	0.282			0.100	"		0.243			15	30
1,2-Dibromoethane (EDB)	U			0.100	"		U				30
Tetrachloroethene	0.0478			0.100	"		0.0525			9	30
Chlorobenzene	0.0115	Q		0.100	"		U			200	30
Ethylbenzene	0.0238			0.100	"		0.0246			3	30
m+p-Xylene	0.101			0.200	"		0.0978			4	30
Bromoform	U			0.100	"		U				30
Styrene	7.37E-3	Q		0.100	"		U			200	30
1,1,2,2-Tetrachloroethane	U			0.100	"		U				30
o-Xylene	0.0264			0.100	"		0.0259			2	30
1,3,5-Trimethylbenzene	7.12E-3			0.100	"		6.83E-3			4	30
1,2,4-Trimethylbenzene	0.0256	Q		0.100	"		U			200	30
1,3-Dichlorobenzene	U			0.100	"		U				30

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RCRA, LCD, US EPA Region 5	Project: Mid America Steel Drum, Inc.	
77 West Jackson Boulevard	Project Number: [none]	Reported:
Chicago IL, 60604	Project Manager: Jamie Paulin	Jun-19-17 17:03

Air Toxics by GC/MS, EPA TO-15 (modified) - Quality Control
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Batch B17E008 - ColdTrap Dehydration

Duplicate (B17E008-DUP3) Source: 1705001-02 Prepared: May-08-17 Analyzed: May-09-17 Qualifiers: (TUN)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Benzyl chloride	**4.88E-3**	Q		0.100	ppbv		U			200	30
1,4-Dichlorobenzene	**U**			0.100	"		U				30
1,2,3-Trimethylbenzene	**0.0196**			0.100	"		0.0241			21	30
1,2-Dichlorobenzene	**U**			0.100	"		U				30
Hexachlorobutadiene	**U**			0.100	"		U				30
1,2,4-Trichlorobenzene	**U**			0.100	"		U				30
Naphthalene	**9.67E-3**			0.100	"		9.15E-3			6	30
Surrogate: Dichlorodifluoromethane	*0.496*			0.0500	"	*0.5100*		*97%*	*70-130*		
Surrogate: Dichlorotetrafluoroethane	*0.0191*			2.00E-3	"	*2.000E-2*		*95%*	*60-140*		
Surrogate: Trichlorofluoromethane	*0.237*			0.0200	"	*0.2350*		*101%*	*70-130*		
Surrogate: 1,1,2-trichloro-1,2,2-trifluoroethane (Freon	*0.0123*	Q		5.00E-3	"	*7.200E-2*		*17%*	*70-130*		
Surrogate: 1,1,1-Trichloroethane	*4.61E-3*			2.50E-3	"	*4.000E-3*		*115%*	*50-150*		
Surrogate: Carbon tetrachloride	*0.0857*			5.00E-3	"	*8.300E-2*		*103%*	*70-130*		

Duplicate (B17E008-DUP4) Source: 1705001-03 Prepared: May-08-17 Analyzed: May-09-17 Qualifiers: (TUN)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
2,2-difluoropropane	**10.0**	NJ			ppbv		10.0			0	
1,1,1,3.3.3-hexafluoropropane	**4.00**				"		4.00			0	
Chlorodifluoromethane (HCFC-22) (R-22)	**0.264**			0.100	"		0.270			2	30
Propene	**0.355**	(ICV), J, MI		0.100	"		0.345			3	30
Chloromethane	**0.570**			0.100	"		0.598			5	30
Methanol	**26.0**	B, (ICV), J		0.500	"		26.2			0.5	30
Vinyl chloride	**U**			0.100	"		U				30
Isobutene	**0.0772**			0.100	"		0.0798			3	30
1,3-butadiene	**4.88E-3**	Q		0.100	"		3.36E-3			37	30
Acetaldehyde	**Rejected**	(ICAL), (ICV)		5.00	"		Rejected			3	30
Bromomethane	**0.0104**	Q		0.100	"		0.0224			74	30
Chloroethane	**2.97**	K, MI		0.100	"		2.98			0.2	30
Ethanol	**5.91**	(ICAL), (ICV), J		0.500	"		5.79			2	30

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RCRA, LCD, US EPA Region 5	Project: Mid America Steel Drum, Inc.	
77 West Jackson Boulevard	Project Number: [none]	Reported:
Chicago IL, 60604	Project Manager: Jamie Paulin	Jun-19-17 17:03

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Batch B17E008 - ColdTrap Dehydration

Duplicate (B17E008-DUP4) Source: 1705001-03 Prepared: May-08-17 Analyzed: May-09-17 Qualifiers: (TUN)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Acrolein	0.0826			0.100	ppbv		0.0845			2	30
Acetonitrile	0.116			0.100	"		0.116			0.7	30
Isopropyl alcohol	1.80	(ICV), J		0.500	"		1.68			7	30
Propanal	0.238			0.100	"		0.260			9	30
Acetone	9.21	B, (ICV), J		0.100	"		9.15			0.7	30
Pentane	0.153			0.100	"		0.152			0.8	30
Isoprene	3.36E-3			0.100	"		4.06E-3			19	30
1,1-Dichloroethene	U			0.100	"		U				30
Methyl iodide	U			0.100	"		U				30
Acrylonitrile	U			0.100	"		U				30
Methylene chloride	8.07	J		0.100	"		8.13			0.6	30
Carbon disulfide	5.16E-3			0.100	"		6.74E-3			27	30
1-Propanol	U			0.500	"		U				30
Cyclopentane	0.0406			0.100	"		0.0421			4	30
Methyl tert-butyl ether	7.64E-3			0.100	"		6.10E-3			22	30
Methacrolein	0.0224			0.100	"		0.0293			27	30
1,1-Dichloroethane	U			0.100	"		U				30
Vinyl acetate	U			0.100	"		U				30
Methyl vinyl ketone	U	Q		0.100	"		0.0844			200	30
Butanal	0.143	(ICV), B, J		0.100	"		0.136			5	30
Hexane	0.202			0.100	"		0.205			2	30
2-Butanone	0.707			0.100	"		0.700			1	30
cis-1,2-Dichloroethene	U			0.100	"		U				30
trans-1,2-Dichloroethene	U	Q		0.100	"		5.42E-3			200	30
Chloroform	0.0237			0.100	"		0.0249			5	30
1,2-Dichloroethane	0.0170			0.100	"		0.0164			4	30
1-Butanol	U			0.500	"		U				30
Cyclohexane	U			0.250	"		U				30
Benzene	0.0710			0.100	"		0.0646			9	30
2-Pentanone	0.0250			0.100	"		0.0254			2	30

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RCRA, LCD, US EPA Region 5	Project: Mid America Steel Drum, Inc.	
77 West Jackson Boulevard	Project Number: [none]	Reported:
Chicago IL, 60604	Project Manager: Jamie Paulin	Jun-19-17 17:03

Air Toxics by GC/MS, EPA TO-15 (modified) - Quality Control
US EPA Region 5 Chicago Regional Laboratory

Batch B17E008 - ColdTrap Dehydration

Duplicate (B17E008-DUP4) Source: 1705001-03 Prepared: May-08-17 Analyzed: May-09-17 Qualifiers: (TUN)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Pentanal	0.0543			0.100	ppbv		0.0582			7	30
3-Pentanone	U			0.100	"		U				30
1,2-Dichloropropane	5.97E-3			0.100	"		6.01E-3			0.7	30
Trichloroethene	4.39E-3			0.100	"		3.94E-3			11	30
Bromodichloromethane	U			0.100	"		U				30
1,4-Dioxane	U			0.100	"		U				30
cis-1,3-Dichloropropene	U			0.100	"		U				30
4-Methyl-2-pentanone	0.0596			0.100	"		0.0589			1	30
trans-1,3-Dichloropropene	U			0.100	"		U				30
1,1,2-Trichloroethane	U			0.100	"		U				30
Dibromochloromethane	U			0.100	"		U				30
Toluene	1.18			0.100	"		1.19			0.8	30
3-Hexanone	U			0.100	"		U				30
2-Hexanone	U			0.100	"		U				30
Hexanal	0.0746			0.100	"		0.0832			11	30
1,2-Dibromoethane (EDB)	U			0.100	"		U				30
Tetrachloroethene	0.0530			0.100	"		0.0579			9	30
Chlorobenzene	9.88E-3			0.100	"		0.0100			1	30
Ethylbenzene	0.0455			0.100	"		0.0452			0.5	30
m+p-Xylene	0.185			0.200	"		0.184			0.3	30
Bromoform	U			0.100	"		U				30
Styrene	0.0166			0.100	"		0.0141			16	30
1,1,2,2-Tetrachloroethane	U			0.100	"		U				30
o-Xylene	0.0522			0.100	"		0.0519			0.6	30
1,3,5-Trimethylbenzene	0.0135			0.100	"		0.0150			11	30
1,2,4-Trimethylbenzene	0.0470			0.100	"		0.0483			3	30
1,3-Dichlorobenzene	U			0.100	"		U				30
Benzyl chloride	3.02E-3	Q		0.100	"		7.11E-3			81	30
1,4-Dichlorobenzene	U			0.100	"		U				30
1,2,3-Trimethylbenzene	0.0258	Q		0.100	"		U			200	30

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77 West Jackson Boulevard	Project Number: [none]	Reported:
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Batch B17E008 - ColdTrap Dehydration

Duplicate (B17E008-DUP4) Source: 1705001-03 Prepared: May-08-17 Analyzed: May-09-17 Qualifiers: (TUN)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
1,2-Dichlorobenzene	**U**			0.100	ppbv		U				30
Hexachlorobutadiene	**U**			0.100	"		U				30
1,2,4-Trichlorobenzene	**U**			0.100	"		U				30
Naphthalene	**0.0119**			0.100	"		0.0111			7	30
Surrogate: Dichlorodifluoromethane	*0.455*			0.0500	"	*0.5100*		*89%*	*70-130*		
Surrogate: Dichlorotetrafluoroethane	*0.0201*			2.00E-3	"	*2.000E-2*		*101%*	*60-140*		
Surrogate: Trichlorofluoromethane	*0.243*			0.0200	"	*0.2350*		*103%*	*70-130*		
Surrogate: 1,1,2-trichloro-1,2,2-trifluoroethane (Freon	*0.0828*			5.00E-3	"	*7.200E-2*		*115%*	*70-130*		
Surrogate: 1,1,1-Trichloroethane	*2.76E-3*			2.50E-3	"	*4.000E-3*		*69%*	*50-150*		
Surrogate: Carbon tetrachloride	*0.0851*			5.00E-3	"	*8.300E-2*		*103%*	*70-130*		

Duplicate (B17E008-DUP5) Source: 1705001-05 Prepared: May-08-17 Analyzed: May-09-17 Qualifiers: (TUN)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
2,2-difluoropropane	**6.00**	NJ			ppbv					200	
1,1,1,3.3.3-hexafluoropropane	**2.00**	NJ			"					200	
Chlorodifluoromethane (HCFC-22) (R-22)	**0.262**	Q		0.100	"		3.84E-3			194	30
Propene	**0.181**	(ICV), J, MI, Q		0.100	"		0.396			74	30
Chloromethane	**0.563**			0.100	"		0.616			9	30
Methanol	**22.4**	B, (ICV), J, Q		0.500	"		3.21			150	30
Vinyl chloride	**U**			0.100	"		U				30
Isobutene	**0.120**	Q		0.100	"		0.0529			78	30
1,3-butadiene	**U**			0.100	"		U				30
Acetaldehyde	**Rejected**	(ICAL), (ICV)		5.00	"		Rejected			9	30
Bromomethane	**9.57E-3**			0.100	"		0.0129			29	30
Chloroethane	**1.62**	K, MI, Q		0.100	"		U			200	30
Ethanol	**15.7**	(ICAL), (ICV), J, Q		0.500	"		1.67			161	30
Acrolein	**0.154**	Q		0.100	"		0.0532			97	30
Acetonitrile	**0.561**	Q		0.100	"		0.0903			145	30
Isopropyl alcohol	**8.54**	(ICV), J, Q		0.500	"		U			200	30

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Batch B17E008 - ColdTrap Dehydration

Duplicate (B17E008-DUP5) Source: 1705001-05 Prepared: May-08-17 Analyzed: May-09-17 Qualifiers: (TUN)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Propanal	0.289	Q		0.100	ppbv		0.145			66	30
Acetone	21.5	B, (ICV), J, Q		0.100	"		1.58			173	30
Pentane	0.0784			0.100	"		0.0808			3	30
Isoprene	3.46E-3	Q		0.100	"		0.0339			163	30
1,1-Dichloroethene	U			0.100	"		U				30
Methyl iodide	U			0.100	"		U				30
Acrylonitrile	0.127	Q		0.100	"		U			200	30
Methylene chloride	3.29	J, Q		0.100	"		0.236			173	30
Carbon disulfide	3.85E-3	Q		0.100	"		8.58E-3			76	30
1-Propanol	4.37	Q		0.500	"		U			200	30
Cyclopentane	0.0970	Q		0.100	"		U			200	30
Methyl tert-butyl ether	0.350	Q		0.100	"		0.0134			185	30
Methacrolein	0.0274			0.100	"		0.0346			23	30
1,1-Dichloroethane	U			0.100	"		U				30
Vinyl acetate	0.644	Q		0.100	"		0.0127			192	30
Methyl vinyl ketone	U			0.100	"		U				30
Butanal	0.232	(ICV), B, J, Q		0.100	"		0.0734			104	30
Hexane	1.95	Q		0.100	"		0.0231			195	30
2-Butanone	19.4	J, Q		0.100	"		0.173			196	30
cis-1,2-Dichloroethene	U			0.100	"		U				30
trans-1,2-Dichloroethene	0.0340	Q		0.100	"		U			200	30
Chloroform	0.0302			0.100	"		0.0241			22	30
1,2-Dichloroethane	0.0202			0.100	"		0.0164			20	30
1-Butanol	2.76	J, Q		0.500	"		U			200	30
Cyclohexane	0.363	Q		0.250	"		U			200	30
Benzene	0.0961	Q		0.100	"		0.0670			36	30
2-Pentanone	0.248	Q		0.100	"		U			200	30
Pentanal	0.129	Q		0.100	"		0.0742			54	30
3-Pentanone	U			0.100	"		U				30
1,2-Dichloropropane	0.0108	Q		0.100	"		5.06E-3			73	30

Environmental Protection Agency Region5
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RCRA, LCD, US EPA Region 5	Project: Mid America Steel Drum, Inc.	
77 West Jackson Boulevard	Project Number: [none]	Reported:
Chicago IL, 60604	Project Manager: Jamie Paulin	Jun-19-17 17:03

Air Toxics by GC/MS, EPA TO-15 (modified) - Quality Control
US EPA Region 5 Chicago Regional Laboratory

Batch B17E008 - ColdTrap Dehydration

Duplicate (B17E008-DUP5) Source: 1705001-05 Prepared: May-08-17 Analyzed: May-09-17 Qualifiers: (TUN)

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Trichloroethene	0.0298	Q		0.100	ppbv		U			200	30
Bromodichloromethane	U			0.100	"		U				30
1,4-Dioxane	0.0106	Q		0.100	"		U			200	30
cis-1,3-Dichloropropene	U			0.100	"		U				30
4-Methyl-2-pentanone	1.61	Q		0.100	"		6.18E-3			198	30
trans-1,3-Dichloropropene	U			0.100	"		U				30
1,1,2-Trichloroethane	U			0.100	"		U				30
Dibromochloromethane	U			0.100	"		U				30
Toluene	4.99	J, Q		0.100	"		0.102			192	30
3-Hexanone	U			0.100	"		U				30
2-Hexanone	U			0.100	"		U				30
Hexanal	0.226	Q		0.100	"		0.854			116	30
1,2-Dibromoethane (EDB)	U			0.100	"		U				30
Tetrachloroethene	0.423	Q		0.100	"		U			200	30
Chlorobenzene	8.28E-3	Q		0.100	"		U			200	30
Ethylbenzene	0.973	Q		0.100	"		6.87E-3			197	30
m+p-Xylene	3.26	Q		0.200	"		0.0191			198	30
Bromoform	U			0.100	"		U				30
Styrene	0.142	Q		0.100	"		U			200	30
1,1,2,2-Tetrachloroethane	U			0.100	"		U				30
o-Xylene	0.929	Q		0.100	"		7.21E-3			197	30
1,3,5-Trimethylbenzene	0.102	Q		0.100	"		U			200	30
1,2,4-Trimethylbenzene	0.329	Q		0.100	"		5.49E-3			193	30
1,3-Dichlorobenzene	U			0.100	"		U				30
Benzyl chloride	0.0338	Q		0.100	"		U			200	30
1,4-Dichlorobenzene	U			0.100	"		U				30
1,2,3-Trimethylbenzene	0.108	Q		0.100	"		0.0107			164	30
1,2-Dichlorobenzene	U			0.100	"		U				30
Hexachlorobutadiene	U			0.100	"		U				30
1,2,4-Trichlorobenzene	U			0.100	"		U				30

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RCRA, LCD, US EPA Region 5	Project: Mid America Steel Drum, Inc.	
77 West Jackson Boulevard	Project Number: [none]	**Reported:**
Chicago IL, 60604	Project Manager: Jamie Paulin	Jun-19-17 17:03

Air Toxics by GC/MS, EPA TO-15 (modified) - Quality Control
US EPA Region 5 Chicago Regional Laboratory

Batch B17E008 - ColdTrap Dehydration

Duplicate (B17E008-DUP5) **Source: 1705001-05** **Prepared: May-08-17 Analyzed: May-09-17** **Qualifiers: (TUN)**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Naphthalene	**0.0370**	Q		0.100	ppbv		7.28E-3			134	30
Surrogate: Dichlorodifluoromethane	*0.487*			0.0500	"	*0.5100*		*95%*	*70-130*		
Surrogate: Dichlorotetrafluoroethane	*0.0188*			2.00E-3	"	*2.000E-2*		*94%*	*60-140*		
Surrogate: Trichlorofluoromethane	*0.239*			0.0200	"	*0.2350*		*102%*	*70-130*		
Surrogate: 1,1,2-trichloro-1,2,2-trifluoroethane (Freon	*0.0826*			5.00E-3	"	*7.200E-2*		*115%*	*70-130*		
Surrogate: 1,1,1-Trichloroethane	*2.58E-3*			2.50E-3	"	*4.000E-3*		*64%*	*50-150*		
Surrogate: Carbon tetrachloride	*0.0854*			5.00E-3	"	*8.300E-2*		*103%*	*70-130*		

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RCRA, LCD, US EPA Region 5	Project: Mid America Steel Drum, Inc.	
77 West Jackson Boulevard	Project Number: [none]	**Reported:**
Chicago IL, 60604	Project Manager: Jamie Paulin	Jun-19-17 17:03

Notes and Definitions

R	Rejected
NJ	There is presumptive evidence that the analyte is present; the analyte is reported as a tentative identification. The reported value is an estimate.
MI	Matrix interference
K	The identification of the analyte is acceptable; the reported value may be biased high. The actual value is expected to be less than the reported value.
J	The identification of the analyte is acceptable; the reported value is an estimate.
B	Analyte concentration is < 5x that in the associated method blank(s); this concentration may be a high-bias estimate.
(TUN)	Sample analysis occurred outside the tune check window stated in the SOP.
(ICV)	Initial calibration verification criteria not met for this analyte
(ICAL)	Initial calibration criteria not met for this analyte
U	Not Detected
NR	Not Reported
Q	QC limit Exceeded