Shaw Environmental & Infrastructure, Inc.
(A CB&I Company)
2440 Louisiana Blvd. NE, Suite 300
Albuquerque, NM 87110
Tel: +1 505 262 8800
Fax: +1 505 262 8855
www.CBI.com

June 4, 2013

Subject: **January 2013 and July 2012 Indoor Air Evaluation Sample Results**
As applicable to:
Approved Final Indoor Air Work Plan, January 2012
Bulk Fuels Facility Spill, SWMUs ST-106 and SS-111
June 2013

This Indoor Air Evaluation January Letter Report has been prepared by Shaw Environmental & Infrastructure, Inc. (Shaw), a CB&I company, for the U.S. Army Corps of Engineers (USACE), Albuquerque District, under Contract W912DY-10-D-0014, Delivery Order 002. Two collections of indoor air samples and concurrent outdoor air/ambient samples were performed in July 2012 and January 2013 to represent both winter and summer environments. The scope was defined by regulatory correspondence from the New Mexico Environment Department (NMED) Hazardous Waste Bureau (HWB) to the U.S. Air Force (Air Force) on January 28, August 18, and October 11, 2011. Documentation and approval of the scope was achieved through the *Indoor Air Evaluation Work Plan, Bulk Fuels Facility Spill, Solid Waste Management Units ST-106 and SS-111* (Indoor Air Evaluation Work Plan; USACE, 2012). As such, the evaluation of the indoor air data does not include site-specific fate and transport modeling as requested in the letter from the NMED, dated January 28, 2011. In addition, as agreed to by the Kirtland Air Force Base (AFB) Bioenvironmental Engineering Flight and Shaw, the indoor air data will not be used to conduct a human health risk assessment as directed in the letter from Kirtland AFB dated May 7, 2013 (Attachment 1).

The objective of this Letter Report is to summarize the air sampling process for the January 2013 sampling event and provide the analytical results for both the July 2012 and the January 2013 indoor air sampling events at the Bulk Fuels Facility, KAFB, Albuquerque, New Mexico.

Building Descriptions

Building 1026

Kirtland AFB Building 1026 is located approximately 500 ft south of Randolph Avenue Southeast and is situated 100 ft north of Building 1032. The building has a raised foundation of over four feet for loading and unloading of trucks. The foundation rests on compacted dirt. Two rooms located inside the building are separated by a sliding metal door, which is in the closed position. This building is used for storage and is occupied only a few hours each month. No offices, bathrooms, or showers are present in the building that would suggest a long-term working environment. During the October 2011 site walk and both sampling events, Shaw personnel noticed a strong odor throughout the building (see daily field log in Attachment 2). Several closed, metal lockers are labeled "Lab Supplies" and the contents are unknown.

Building 1032

Kirtland AFB Building 1032 is located approximately 100 ft south of Building 1026 and is situated 200 ft southeast of Building 1033. This building is comprised of office space, a hallway, a bathroom with adjoining shower room, a conference room, and a garage. Doors separate these spaces from each other. Within the office space, which is located on the east side of the building, there is a door to the outside that is open during the day. The tenants of Building 1032 occupy all the rooms except the garage on a daily basis.

Building 1033

Kirtland AFB Building 1033, also known as the "Pump House," is located 200 ft west of Building 1026 and is situated 200 ft northwest of Building 1032. This building is divided into two areas, the indoor room, which houses the pump controls, and the outside space, which is used for fuel lines. The outside space has a roof but no walls. The Pump House also contains a basement area that is exposed by a large grate that covers the entire ceiling. The basement was determined to be a confined space, and access was not possible during the site visit. The indoor room of the Pump House contains no office space, bathroom, shower room, or conference room.

Sampling Procedure

The July 2012 sampling procedure is included in the October 15, 2012 letter report submitted by Shaw. On January 14 2013, the Shaw field team collected a total of seven air samples and one duplicate air sample in accordance with the NMED approved Final *Indoor Air Evaluation Work Plan* (USACE, 2012). One sample characterized the ambient/outdoor air for Buildings 1026, one sample characterized the ambient/outdoor air for Building 1032, one sample characterized the ambient/outdoor air for Building 1033, one sample characterized the indoor air of Building 1026, one sample characterized the indoor air of Building 1033, and two samples characterized the indoor air of Building 1032. The duplicate air sample corresponded to one of the indoor air samples from Building 1032 (KAFB-Indoor-1032-2). The indoor air sampling locations for each of the buildings are shown on Figures 1 through 3. The ambient/outdoor air sampling locations are shown on Figure 4.

The air samples were collected in certified, clean, 6-liter, passivated, steel SUMMA™ canisters within an 8-hour period at all sampling locations. Each sample of air was drawn through a sampling train of components that regulated the rate and duration of sampling into a pre-evacuated canister. Each pre-evacuated canister received from Eurofins Air Toxics Ltd. was equipped with a brass plug, vacuum gauge, and flow controller. Prior to shipment, the laboratory confirmed the flow rates for each orifice. A more detailed explanation of the sampling protocol is presented in Section 6.1 of the Indoor Air Evaluation Work Plan (USACE, 2012).

Throughout the day, Shaw personnel noted the conditions that might affect the interpretation of the results under which the samples were collected. The conditions for ambient air samples included weather, temperature, humidity, wind speed, and barometric pressure. The conditions for indoor air samples included the building foundations, cracks, drains or sumps, and presence of potential volatile organic compounds (VOC) not caused by the jet fuel plume. All building conditions are documented in the field notes in Attachment 2.

Sampling Results

Air samples were shipped to Eurofins Air Toxics Ltd. on January 15, 2013, where they were tested for VOCs using Modified U.S. Environmental Protection Agency (EPA) Method TO-15 (low level) (EPA, 1999). The detected VOCs for July 2012 and January 2013 are presented in Table 1. The complete analytical data packages for July 2012 and January 2013 are provided as Attachment 3. Four VOCs (benzene, carbon tetrachloride, ethylbenzene, and 1,2,4-trimethylbenzene) exceed the Carcinogenic Target Risk Regional Screening Level for Resident Air based on the EPA (2012) standard in indoor air samples. Two VOCs (benzene and carbon tetrachloride) exceed the Carcinogenic Target Risk Regional Screening Level for Resident Air in outdoor/ambient samples. The results for both the ambient/outdoor air samples and indoor air samples indicate detections of many VOCs (Table 1) in both July 2012 and January 2013 sampling events.

A risk screening was performed to evaluate if there is any potential threat to human health and the environment. Three VOCs were identified as being potentially hazardous in indoor air in Building 1026 (1,2,4-trimethybenzene, benzene, and ethylbenzene). However, as this building with the highest VOC concentrations is not routinely occupied, risks and hazards are expected to be acceptable. The source of the VOCs in indoor air is uncertain. A proportional analysis of VOC constituent data, using relative percentages, suggests that indoor air quality may be more likely related to ambient air or indoor sources than subsurface contamination.

40 CFR 270.11
DOCUMENT CERTIFICATION
JUNE 2013

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

JOHN C. KUBINEC, Colonel, USAF
Commander, 377th Air Base Wing

This document has been approved for public release.

KIRTLAND AIR FORCE BASE
377th Air Base Wing Public Affairs

Future Activities

Further sampling events will not be conducted. Characterization of both winter and summer indoor air conditions has been completed as outlined in the NMED-approved Indoor Air Evaluation Work Plan (USACE, 2012).

References

EPA. 2012. *Regional Screening Level (RSL) Resident Air Supporting Table*, April.

EPA. 1999. *Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Compendium Method TO-15 Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters and Analyzed By Gas Chromatography/Mass Spectrometry (GC/MS)*, 2nd ed. January.

USACE. 2012. *Indoor Air Evaluation Work Plan, Bulk Fuels Facility Spill, Solid Waste Management Units ST-106 and SS-111.* Prepared by Shaw Environmental & Infrastructure, Inc. for the U.S. Army Corps of Engineers under USACE Contract No. W912DY-10-D-0014, Delivery Order 0002. January.

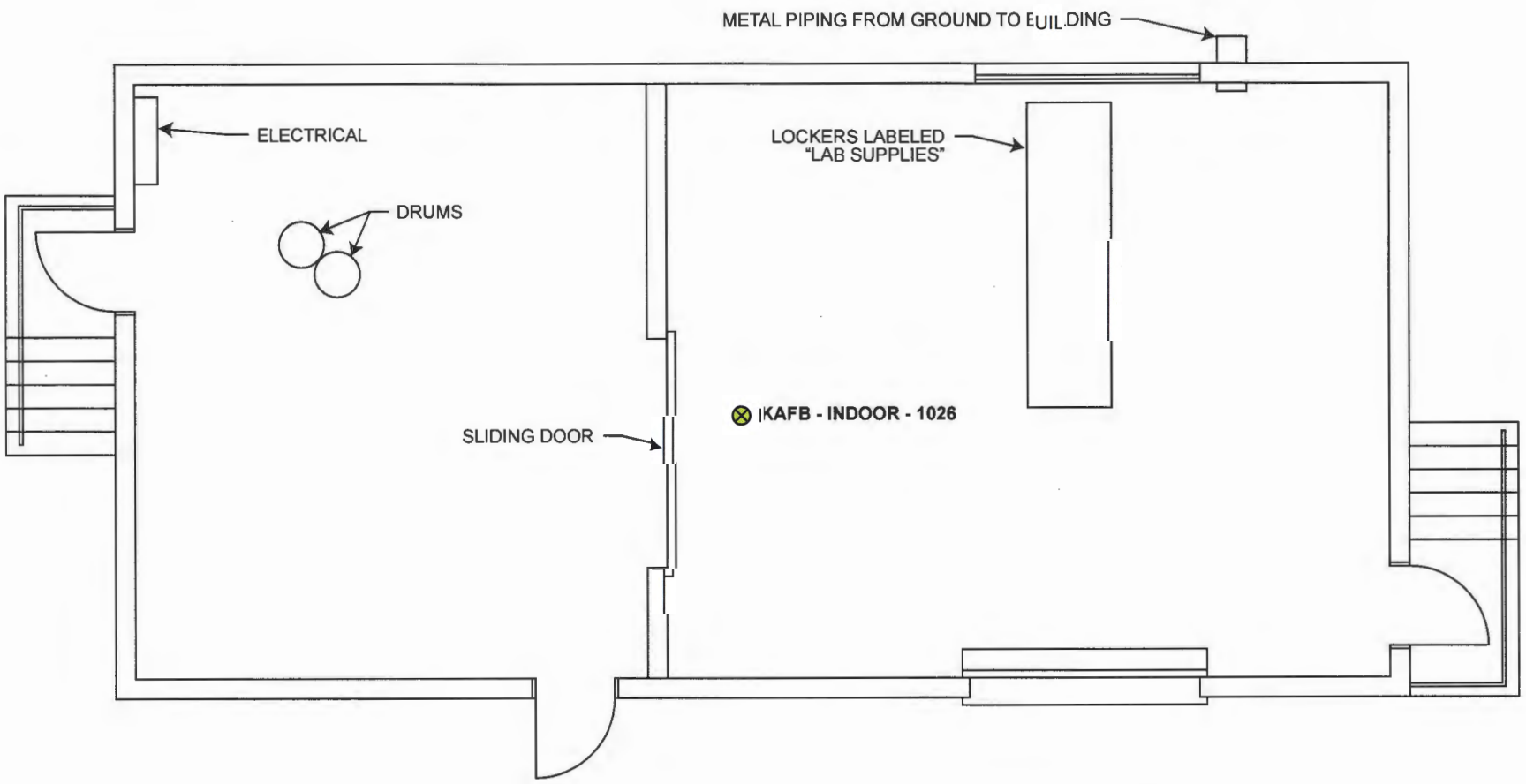
KIRTLAND AIR FORCE BASE
ALBUQUERQUE, NEW MEXICO

January 2013 and July 2012 Indoor Air Evaluation Sample Results
As applicable to:
Approved Final Indoor Air Work Plan, January 2012
Bulk Fuels Facility Spill
Solid Waste Management Units ST-106 and SS-111

June 2013

377 MSG/CEANR
2050 Wyoming Blvd. SE
Kirtland AFB, New Mexico 87117-5270

FIGURES



N

NOT TO SCALE

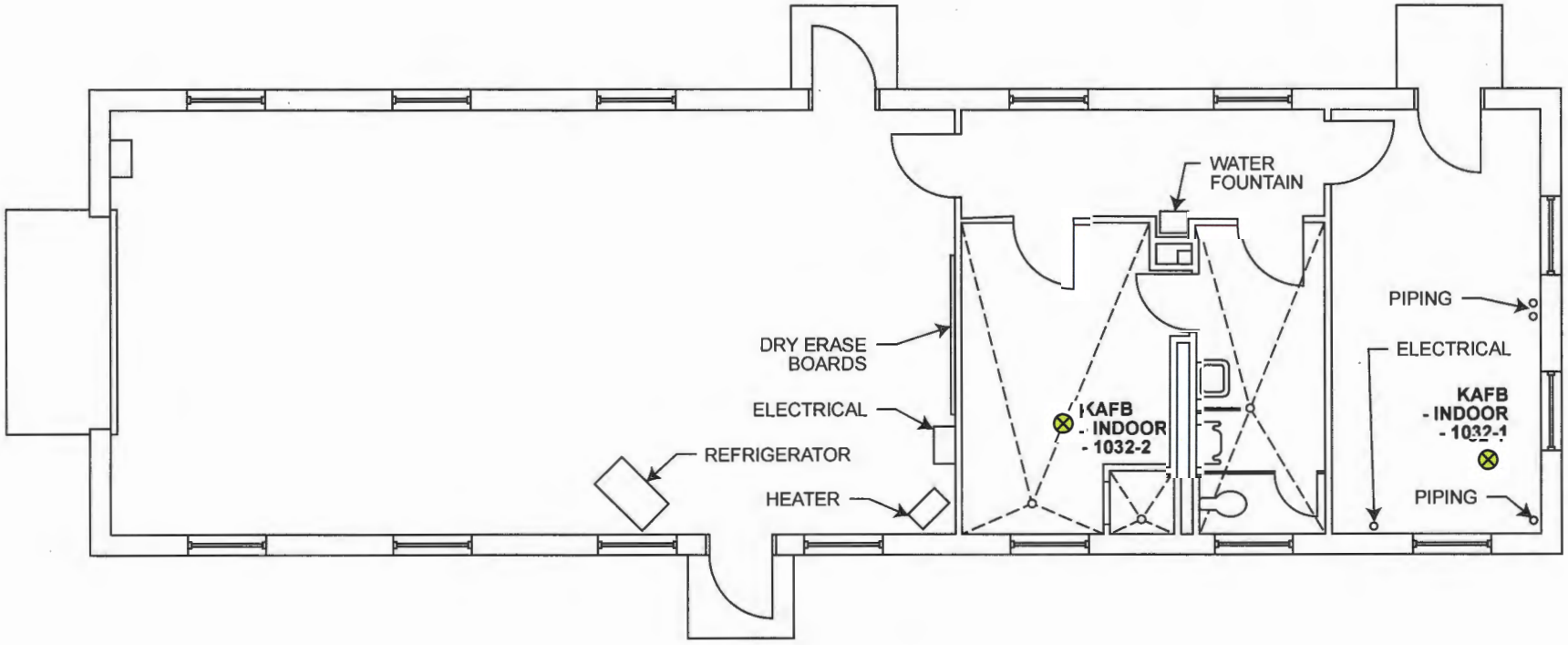
LEGEND

⊗ Sampling Location

INDOOR AIR QUALITY WORK PLAN
BULK FUELS FACILITY
KIRTLAND AIR FORCE BASE, NEW MEXICO

FIGURE 1
BUILDING 1026 FLOOR PLAN AND
SAMPLING LOCATION

140705.CA010034 A1



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NOT TO SCALE

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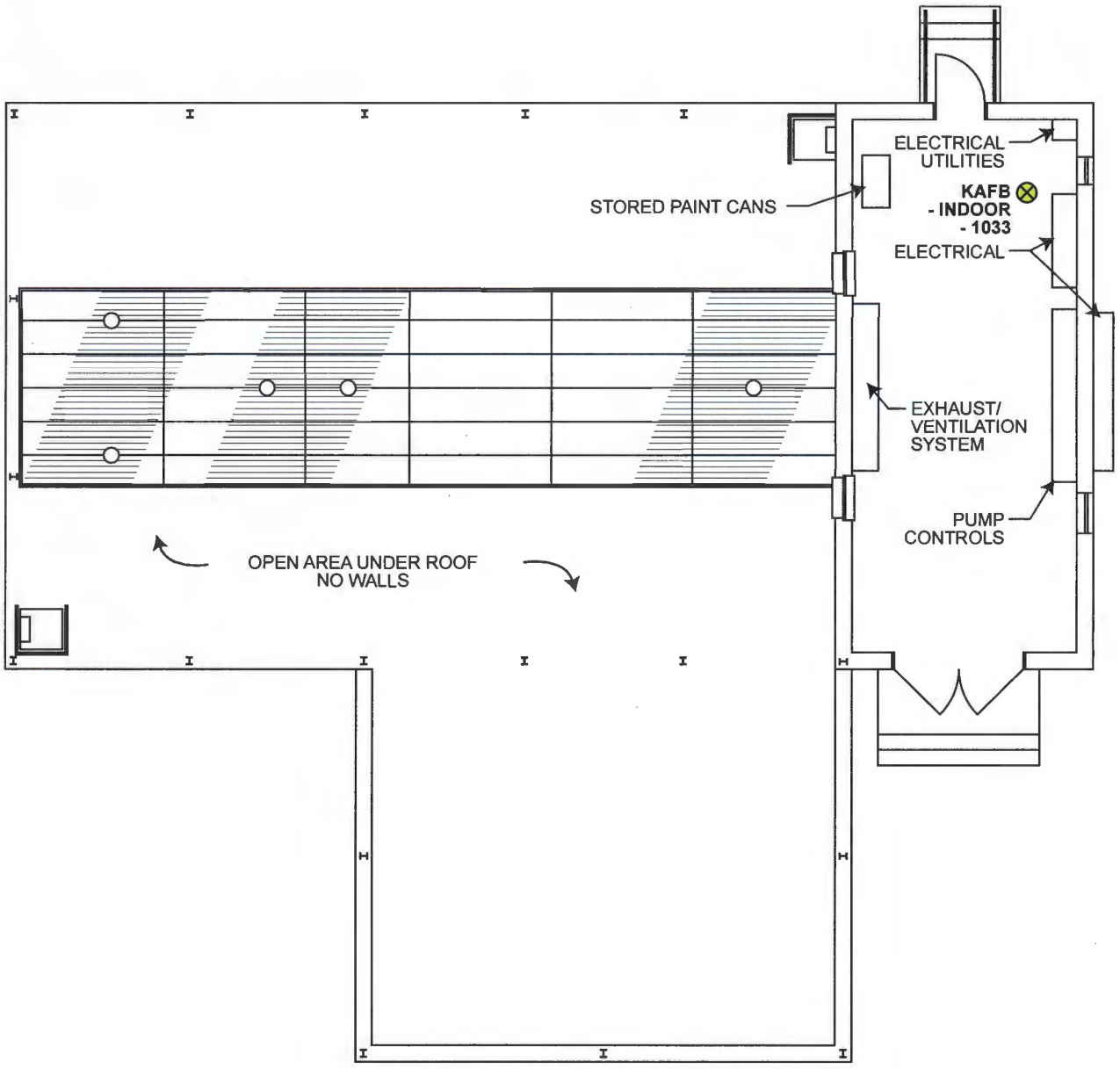
⊗ Sampling Location

INDOOR AIR QUALITY WORK PLAN
BULK FUELS FACILITY
KIRTLAND AIR FORCE BASE, NEW MEXICO

FIGURE 2
BUILDING 1032 FLOOR PLAN AND
SAMPLING LOCATIONS

140705.CA010034 A2



LEGEND

⊗ Sampling Location

N

NOT TO SCALE

INDOOR AIR QUALITY WORK PLAN
BULK FUELS FACILITY
KIRTLAND AIR FORCE BASE, NEW MEXICO

FIGURE 3
BUILDING 1033 FLOOR PLAN AND SAMPLING LOCATION

140705.CA010034 A3

140705.CA010034 A5

TABLE 1

Detects from July 2012 and January 2013 Sampling Events
Kirtland Air Force Base, Bulk Fuels Facility

Table 1
Detects from July 2012 and January 2013 Sampling Events
Kirtland Air Force Base, Bulk Fuels Facility

			Sample ID	KAFB-AMBIENT-1026			KAFB-AMBIENT-1032			KAFB-AMBIENT-1032		
			Sample Date	14-Jan-13			17-Jul-12			14-Jan-13		
Parameter	Units	Carcinogenic Target Risk[a]	Noncancer Hazard Index[a]	Result	Qual	LOQ	Result	Qual	LOQ	Result	Qual	LOQ
1,2,4-TRIMETHYLBENZENE	µg/m³	NA	7.3	ND	U	1	ND	U	1.1	ND	U	0.95
1,3,5-TRIMETHYLBENZENE	µg/m³	NA	NA	ND	U	1	ND	U	1.1	ND	U	0.95
1,3-DIMETHYLBENZENE	µg/m³	NA	NA	**2.5**		0.88	**0.9**	J	1	**0.42**	J	0.84
2,2,4-TRIMETHYLPENTANE	µg/m³	NA	NA	**25**		4.7	**12**		5.4	**1.2**	J	4.5
2-BUTANONE	µg/m³	NA	5,200	**0.97**	J	3	**1.3**	J	3.4	**1.1**	J	2.8
2-HEXANONE	µg/m³	NA	31	ND	U	4.2	ND	U	4.7	ND	U	4
4-METHYL-2-PENTANONE	µg/m³	NA	3,100	ND	U	0.83	ND	U	0.94	ND	U	0.79
ACETONE	µg/m³	NA	32,000	ND	U	2.4	**3.1**		2.7	ND	U	2.3
BENZENE	µg/m³	0.31	31	**7.8**		0.32	**8.8**		0.37	**1.1**		0.31
BROMOMETHANE	µg/m³	NA	5.2	ND	U	3.9	**0.78**	J	4.5	ND	U	3.7
CARBON TETRACHLORIDE	µg/m³	0.41	100	**0.57**	J	1.3	**0.33**	J	1.4	**0.54**	J	1.2
CHLOROMETHANE	µg/m³	NA	94	**0.97**		0.42	**0.9**		0.47	**1.1**		0.4
DICHLORODIFLUOROMETHANE	µg/m³	NA	100	**2.6**		1	**2**		1.1	**2.6**		0.95
ERYTHRENE	µg/m³	NA	NA	ND	U	0.45	**1.4**		0.51	ND	U	0.43
ETHANOL	µg/m³	NA	NA	**1.5**	J	1.9	**2.4**		2.2	**1.3**	J	1.8
ETHYLBENZENE	µg/m³	0.97	1,000	**0.88**		0.88	**0.44**	J	1	ND	U	0.84
FREON 113	µg/m³	NA	NA	ND	U	1.6	ND	U	1.8	**0.83**	J	1.5
HEPTANE	µg/m³	NA	NA	**16**		0.83	**13**		0.94	**1.4**		0.79
HEXANE	µg/m³	NA	730	**18**		0.72	**10**		0.81	**2.5**		0.68
ISOPROPANOL	µg/m³	NA	7,300	**2**	J	2.5	**0.37**	J	2.8	**0.82**	J	2.4
ISOPROPYLBENZENE	µg/m³	NA	420	ND	U	1	ND	U	1.1	ND	U	0.95
METHYLENE CHLORIDE	µg/m³	96	630	ND	U	1.4	ND	U	1.6	ND	U	1.3
N-PROPYLBENZENE	µg/m³	NA	1,000	ND	U	1	ND	U	1.1	ND	U	0.95
O-XYLENE	µg/m³	NA	100	**0.77**	J	0.88	**0.29**	J	1	ND	U	0.84
P-ETHYLTOLUENE	µg/m³	NA	NA	ND	U	1	ND	U	1.1	ND	U	0.95
STYRENE	µg/m³	NA	1,000	ND	U	0.86	ND	U	0.98	ND	U	0.82
TETRACHLOROETHENE	µg/m³	NA	NA	ND	U	1.4	ND	U	1.6	ND	U	1.3
THF	µg/m³	NA	NA	ND	U	3	ND	U	3.4	ND	U	2.8
TOLUENE	µg/m³	NA	5,200	**15**		0.76	**10**		0.87	**1.6**		0.75
TRICHLOROFLUOROMETHANE	µg/m³	NA	730	**1.3**		1.1	**1.1**	J	1.3	**1.4**		1.1

[a]EPA, 2012, Regional Screening Level (RSL) Resident Air Supporting Table, April.

Highlight - Above Carcinogenic Target Risk Regional Screening Level for Resident Air.

Bold - Analyte was detected above the LOQ.

µg/m³ - Microgram per cubic meter.

DUP - Duplicate sample.

ID - Identification.

J - Estimated value, concentration is less than reporting limit but greater than laboratory method detection limit.

KAFB - Kirtland Air Force Base.

LOQ - Limit of Quantitation.

NA - Not applicable.

ND - Nondetect.

Qual - Qualifier.

U - Analyte was not detected.

Table 1
Detects from July 2012 and January 2013 Sampling Events
Kirtland Air Force Base, Bulk Fuels Facility

			Sample ID	KAFB-AMBIENT-1033			KAFB-AMBIENT-1033			KAFB-INDOOR-1026		
			Sample Date	17-Jul-12			14-Jan-13			17-Jul-12		
Parameter	Units	Carcin-ogenic Target Risk[a]	Noncancer Hazard Index[a]	Result	Qual	LOQ	Result	Qual	LOQ	Result	Qual	LOQ
1,2,4-TRIMETHYLBENZENE	µg/m^3	NA	7.3	ND	U	1.1	ND	U	0.98	**52**		1
1,3,5-TRIMETHYLBENZENE	µg/m^3	NA	NA	ND	U	1.1	ND	U	0.98	**11**		1
1,3-DIMETHYLBENZENE	µg/m^3	NA	NA	**0.28**	J	1	**1**		0.86	**26**		0.92
2,2,4-TRIMETHYLPENTANE	µg/m^3	NA	NA	ND	U	5.4	**5.5**		4.6	**35**		5
2-BUTANONE	µg/m^3	NA	5,200	**0.82**	J	3.4	**2**	J	2.9	**4**		3.1
2-HEXANONE	µg/m^3	NA	31	ND	U	4.7	**0.26**	J	4.1	ND	U	4.3
4-METHYL-2-PENTANONE	µg/m^3	NA	3,100	ND	U	0.94	ND	U	0.82	**0.59**	J	0.87
ACETONE	µg/m^3	NA	32,000	**6.9**		2.7	**7.6**		2.4	**16**		2.5
BENZENE	µg/m^3	0.31	31	**0.53**		0.37	**3**		0.32	**23**		0.34
BROMOMETHANE	µg/m^3	NA	5.2	**0.7**	J	4.5	ND	U	3.9	ND	U	4.1
CARBON TETRACHLORIDE	µg/m^3	0.41	100	**0.42**	J	1.4	**0.9**	J	1.2	**0.39**	J	1.3
CHLOROMETHANE	µg/m^3	NA	94	**1**		0.47	**0.85**		0.41	**0.88**		0.44
DICHLORODIFLUOROMETHANE	µg/m^3	NA	100	**1.9**		1.1	**2.2**		0.98	**2.1**		1
ERYTHRENE	µg/m^3	NA	NA	ND	U	0.51	ND	U	0.44	**4**		0.47
ETHANOL	µg/m^3	NA	NA	**1.7**	J	2.2	**3.3**		1.9	**3.7**		2
ETHYLBENZENE	µg/m^3	0.97	1,000	ND	U	1	**0.47**	J	0.86	**14**		0.92
FREON 113	µg/m^3	NA	NA	**0.67**	J	1.8	**0.61**	J	1.5	**0.48**	J	1.6
HEPTANE	µg/m^3	NA	NA	**0.35**	J	0.94	**4.9**		0.82	**39**		0.87
HEXANE	µg/m^3	NA	730	**0.54**	J	0.81	**6.6**		0.7	**34**		0.75
ISOPROPANOL	µg/m^3	NA	7,300	ND	U	2.8	**6.9**		2.4	**0.85**	J	2.6
ISOPROPYLBENZENE	µg/m^3	NA	420	ND	U	1.1	ND	U	0.98	**5.4**		1
METHYLENE CHLORIDE	µg/m^3	96	630	ND	U	1.6	ND	U	1.4	ND	U	1.5
N-PROPYLBENZENE	µg/m^3	NA	1,000	ND	U	1.1	ND	U	0.98	**11**		1
O-XYLENE	µg/m^3	NA	100	ND	U	1	**0.34**	J	0.86	**13**		0.92
P-ETHYLTOLUENE	µg/m^3	NA	NA	ND	U	1.1	ND	U	0.98	ND	U	1
STYRENE	µg/m^3	NA	1,000	ND	U	0.98	ND	U	0.85	**0.98**		0.9
TETRACHLOROETHENE	µg/m^3	NA	NA	ND	U	1.6	ND	U	1.3	ND	U	1.4
THF	µg/m^3	NA	NA	ND	U	3.4	ND	U	2.9	ND	U	3.1
TOLUENE	µg/m^3	NA	5,200	**0.84**	J	0.87	**5.7**		0.75	**37**		0.8
TRICHLOROFLUOROMETHANE	µg/m^3	NA	730	**1.1**	J	1.3	**1.2**		1.1	**1.2**	J	1.2

[a]EPA, 2012, Regional Screening Level (RSL) Resident Air Supporting Table, April.

Highlight - Above Carcinogenic Target Risk Regional Screening Level for Resident Air.

Bold - Analyte was detected above the LOQ.

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KAFB - Kirtland Air Force Base.

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NA - Not applicable.

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Qual - Qualifier.

U - Analyte was not detected.

Table 1
Detects from July 2012 and January 2013 Sampling Events
Kirtland Air Force Base, Bulk Fuels Facility

			Sample ID	KAFB-INDOOR-1026			KAFB-INDOOR-1032-1			KAFB-INDOOR-1032-1		
			Sample Date	14-Jan-13			17-Jul-12			14-Jan-13		
Parameter	Units	Carcin-ogenic Target Risk[a]	Noncancer Hazard Index[a]	Result	Qual	LOQ	Result	Qual	LOQ	Result	Qual	LOQ
1,2,4-TRIMETHYLBENZENE	µg/m³	NA	7.3	ND	U	0.99	**0.46**	J	1.1	**0.88**	J	1.1
1,3,5-TRIMETHYLBENZENE	µg/m³	NA	NA	ND	U	0.99	ND	U	1.1	ND	U	1.1
1,3-DIMETHYLBENZENE	µg/m³	NA	NA	**1.3**		0.87	**1.1**		0.97	**2.2**		0.96
2,2,4-TRIMETHYLPENTANE	µg/m³	NA	NA	**9.3**		4.7	**8.6**		5.2	**1.1**	J	5.2
2-BUTANONE	µg/m³	NA	5,200	**1.2**	J	3	**2.2**	J	3.3	**1.5**	J	3.2
2-HEXANONE	µg/m³	NA	31	ND	U	4.1	ND	U	4.6	ND	U	4.5
4-METHYL-2-PENTANONE	µg/m³	NA	3,100	ND	U	0.82	**0.42**	J	0.91	ND	U	0.82
ACETONE	µg/m³	NA	32,000	**5.5**		2.4	**14**		2.6	**15**		2.6
BENZENE	µg/m³	0.31	31	**4.8**		0.32	**6.4**		0.36	**1.2**		0.35
BROMOMETHANE	µg/m³	NA	5.2	ND	U	3.9	**1.3**	J	4.3	ND	U	4.3
CARBON TETRACHLORIDE	µg/m³	0.41	100	ND	U	1.3	**0.41**	J	1.4	ND	U	1.4
CHLOROMETHANE	µg/m³	NA	94	**0.98**		0.42	**1.3**		0.46	**1.3**		0.46
DICHLORODIFLUOROMETHANE	µg/m³	NA	100	**2.6**		0.99	**1.9**		1.1	**2.4**		1.1
ERYTHRENE	µg/m³	NA	NA	**0.3**	J	0.44	**1.3**		0.49	ND	U	0.49
ETHANOL	µg/m³	NA	NA	**1.9**		1.9	**46**		2.1	**280**	J13	2.1
ETHYLBENZENE	µg/m³	0.97	1,000	**0.58**	J	0.87	**0.33**	J	0.97	**0.76**	J	0.96
FREON 113	µg/m³	NA	NA	**0.63**	J	1.5	**0.45**	J	1.7	ND	U	1.7
HEPTANE	µg/m³	NA	NA	**8.5**		0.82	**8.3**		0.91	**1.3**		0.9
HEXANE	µg/m³	NA	730	**11**		0.71	**7.7**		0.78	**2.1**		0.78
ISOPROPANOL	µg/m³	NA	7,300	**1.7**	J	2.5	**0.68**	J	2.7	**7.4**		2.7
ISOPROPYLBENZENE	µg/m³	NA	420	ND	U	0.99	ND	U	1.1	ND	U	1.1
METHYLENE CHLORIDE	µg/m³	96	630	ND	U	1.4	ND	U	1.5	ND	U	1.5
N-PROPYLBENZENE	µg/m³	NA	1,000	ND	U	0.99	ND	U	1.1	ND	U	1.1
O-XYLENE	µg/m³	NA	100	**0.47**	J	0.87	**0.28**	J	0.97	**0.68**	J	0.96
P-ETHYLTOLUENE	µg/m³	NA	NA	ND	U	0.99	**0.38**	J	1.1	**0.48**	J	1.1
STYRENE	µg/m³	NA	1,000	ND	U	0.86	ND	U	0.95	ND	U	0.94
TETRACHLOROETHENE	µg/m³	NA	NA	ND	U	1.4	ND	U	1.5	ND	U	1.5
THF	µg/m³	NA	NA	ND	U	3	**0.51**	J	3.3	ND	U	3.2
TOLUENE	µg/m³	NA	5,200	**8.4**		0.76	**6.5**		0.84	**3.1**		0.83
TRICHLOROFLUOROMETHANE	µg/m³	NA	730	**1.4**		1.1	**1.1**	U	1.2	**1.3**		1.2

[a]EPA, 2012, Regional Screening Level (RSL) Resident Air Supporting Table, April.

Highlight - Above Carcinogenic Target Risk Regional Screening Level for Resident Air.

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DUP - Duplicate sample.

ID - Identification.

J - Estimated value, concentration is less than reporting limit but greater than laboratory method detection limit.

KAFB - Kirtland Air Force Base.

LOQ - Limit of Quantitation.

NA - Not applicable.

ND - Nondetect.

Qual - Qualifier.

U - Analyte was not detected.

Table 1
Detects from July 2012 and January 2013 Sampling Events
Kirtland Air Force Base, Bulk Fuels Facility

			Sample ID	KAFB-INDOOR-1032-2			KAFB-INDOOR-1032-2			KAFB-INDOOR-1033		
			Sample Date	17-Jul-12			14-Jan-13			17-Jul-12		
Parameter	Units	Carcin-ogenic Target Risk[a]	Noncancer Hazard Index[a]	Result	Qual	LOQ	Result	Qual	LOQ	Result	Qual	LOQ
1,2,4-TRIMETHYLBENZENE	µg/m³	NA	7.3	ND	U	0.99	**0.89**	J	1.1	**0.52**	J	1.1
1,3,5-TRIMETHYLBENZENE	µg/m³	NA	NA	ND	U	0.99	ND	U	1.1	**0.25**	J	1.1
1,3-DIMETHYLBENZENE	µg/m³	NA	NA	**1.4**		0.87	**12**		0.95	**0.39**	J	0.97
2,2,4-TRIMETHYLPENTANE	µg/m³	NA	NA	**5.8**		4.7	**1.1**	J	5.1	ND	U	5.2
2-BUTANONE	µg/m³	NA	5,200	**4**		3	**1.7**	J	3.2	**5.9**		3.3
2-HEXANONE	µg/m³	NA	31	ND	U	4.1	ND	U	4.5	ND	U	4.6
4-METHYL-2-PENTANONE	µg/m³	NA	3,100	**0.41**	J	0.82	ND	U	0.89	**0.51**	J	0.91
ACETONE	µg/m³	NA	32,000	**22**		2.4	**25**		2.6	**13**		2.6
BENZENE	µg/m³	0.31	31	**5.3**		0.32	**1.5**		0.35	**0.67**		0.36
BROMOMETHANE	µg/m³	NA	5.2	**0.88**	J	3.9	ND	U	4.2	**0.72**	J	4.3
CARBON TETRACHLORIDE	µg/m³	0.41	100	**0.44**	J	1.3	**0.66**	J	1.4	**0.46**	J	1.4
CHLOROMETHANE	µg/m³	NA	94	**1.3**		0.42	**1.3**		0.45	**1**		0.46
DICHLORODIFLUOROMETHANE	µg/m³	NA	100	**2**		0.99	**2.5**		1.1	**2.1**		1.1
ERYTHRENE	µg/m³	NA	NA	**0.94**		0.44	**0.28**	J	0.48	ND	U	0.49
ETHANOL	µg/m³	NA	NA	**38**		1.9	**19**		2	**3.9**		2.1
ETHYLBENZENE	µg/m³	0.97	1,000	**0.74**	J	0.87	**3.2**		0.95	**0.2**	J	0.97
FREON 113	µg/m³	NA	NA	**0.63**	J	1.5	**0.57**	J	1.7	ND	U	1.7
HEPTANE	µg/m³	NA	NA	**5.7**		0.82	**1.3**		0.89	ND	U	0.91
HEXANE	µg/m³	NA	730	**7.3**		0.71	**2.6**		0.77	**0.34**	J	0.78
ISOPROPANOL	µg/m³	NA	7,300	**4.5**		2.5	**33**		2.7	ND	U	2.7
ISOPROPYLBENZENE	µg/m³	NA	420	ND	U	0.99	ND	U	1.1	ND	U	1.1
METHYLENE CHLORIDE	µg/m³	96	630	**4.2**		1.4	ND	U	1.5	ND	U	1.5
N-PROPYLBENZENE	µg/m³	NA	1,000	ND	U	0.99	ND	U	1.1	ND	U	1.1
O-XYLENE	µg/m³	NA	100	**0.44**	J	0.87	**3.2**		0.95	**0.26**	J	0.97
P-ETHYLTOLUENE	µg/m³	NA	NA	ND	U	0.99	**1**	J	1.1	**0.59**	J	1.1
STYRENE	µg/m³	NA	1,000	ND	U	0.86	ND	U	0.93	**5.4**		0.95
TETRACHLOROETHENE	µg/m³	NA	NA	**0.49**	J	1.4	ND	U	1.5	ND	U	1.5
THF	µg/m³	NA	NA	**0.55**	J	3	ND	U	3.2	**1.5**	J	3.3
TOLUENE	µg/m³	NA	5,200	**14**		0.76	**13**		0.82	**0.82**	J	0.84
TRICHLOROFLUOROMETHANE	µg/m³	NA	730	**1.1**	J	1.1	**1.4**		1.2	**1.3**		1.2

[a]EPA, 2012, Regional Screening Level (RSL) Resident Air Supporting Table, April.

Highlight - Above Carcinogenic Target Risk Regional Screening Level for Resident Air.

Bold - Analyte was detected above the LOQ.

µg/m³ - Microgram per cubic meter.

DUP - Duplicate sample.

ID - Identification.

J - Estimated value, concentration is less than reporting limit but greater than laboratory method detection limit.

KAFB - Kirtland Air Force Base.

LOQ - Limit of Quantitation.

NA - Not applicable.

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Qual - Qualifier.

U - Analyte was not detected.

Table 1
Detects from July 2012 and January 2013 Sampling Events
Kirtland Air Force Base, Bulk Fuels Facility

			Sample ID	KAFB-INDOOR-1033		
			Sample Date	14-Jan-13		
Parameter	Units	Carcin-ogenic Target Risk[a]	Noncancer Hazard Index[a]	Result	Qual	LOQ
1,2,4-TRIMETHYLBENZENE	µg/m³	NA	7.3	ND	U	1.1
1,3,5-TRIMETHYLBENZENE	µg/m³	NA	NA	ND	U	1.1
1,3-DIMETHYLBENZENE	µg/m³	NA	NA	**0.94**	J	0.95
2,2,4-TRIMETHYLPENTANE	µg/m³	NA	NA	**3.7**	J	5.1
2-BUTANONE	µg/m³	NA	5,200	**2.2**	J	3.2
2-HEXANONE	µg/m³	NA	31	ND	U	4.5
4-METHYL-2-PENTANONE	µg/m³	NA	3,100	ND	U	0.89
ACETONE	µg/m³	NA	32,000	**6.9**		2.6
BENZENE	µg/m³	0.31	31	**2.6**		0.35
BROMOMETHANE	µg/m³	NA	5.2	ND	U	4.2
CARBON TETRACHLORIDE	µg/m³	0.41	100	ND	U	1.4
CHLOROMETHANE	µg/m³	NA	94	**1.3**		0.45
DICHLORODIFLUOROMETHANE	µg/m³	NA	100	**2.8**		1.1
ERYTHRENE	µg/m³	NA	NA	**0.54**		0.48
ETHANOL	µg/m³	NA	NA	**3.2**		2
ETHYLBENZENE	µg/m³	0.97	1,000	**0.41**	J	0.95
FREON 113	µg/m³	NA	NA	ND	U	1.7
HEPTANE	µg/m³	NA	NA	**3.7**		0.89
HEXANE	µg/m³	NA	730	**5.3**		0.77
ISOPROPANOL	µg/m³	NA	7,300	**7.5**		2.7
ISOPROPYLBENZENE	µg/m³	NA	420	ND	U	1.1
METHYLENE CHLORIDE	µg/m³	96	630	ND	U	1.5
N-PROPYLBENZENE	µg/m³	NA	1,000	ND	U	1.1
O-XYLENE	µg/m³	NA	100	**0.31**	J	0.95
P-ETHYLTOLUENE	µg/m³	NA	NA	ND	U	1.1
STYRENE	µg/m³	NA	1,000	**0.61**	J	0.93
TETRACHLOROETHENE	µg/m³	NA	NA	ND	U	1.5
THF	µg/m³	NA	NA	**0.43**	J	3.2
TOLUENE	µg/m³	NA	5,200	**3.7**		0.82
TRICHLOROFLUOROMETHANE	µg/m³	NA	730	**1.4**		1.2

[a]EPA, 2012, Regional Screening Level (RSL) Resident Air Supporting Table, April.

Highlight - Above Carcinogenic Target Risk Regional Screening Level for Resident Air.

Bold - Analyte was detected above the LOQ.

µg/m³ - Microgram per cubic meter.

DUP - Duplicate sample.

ID - Identification.

J - Estimated value, concentration is less than reporting limit but greater than laboratory method detection limit.

KAFB - Kirtland Air Force Base.

LOQ - Limit of Quantitation.

NA - Not applicable.

ND - Nondetect.

Qual - Qualifier.

U - Analyte was not detected.

ATTACHMENT 1

Kirtland AFB Letter dated May 7, 2013

DEPARTMENT OF THE AIR FORCE
377th Aerospace Medicine Squadron (AFMC)
2050A Second Street SE
Kirtland AFB NM 87117-5522

7 May 2013

MEMORANDUM FOR 377 MDG/CEANR

FROM: 377 AMDS/SGPB

SUBJECT: Review of July 2012 Air Evaluation Sample Results

1. Shaw Environmental was contracted by U.S. Army Corp of Engineers (USACE), Albuquerque District, to accomplish an Indoor Air Evaluation at the Kirtland AFB Bulk Fuels Facility. The sampling plan was defined by a working group consisting of Kirtland Air Force Base Civil Engineering, Shaw Environmental, and New Mexico Environmental Department Hazardous Waste Bureau representatives.

2. The Kirtland AFB Bioenvironmental Engineering Flight is the office of primary responsibility for evaluation of workers exposures and potential health hazards to include chemical, biological, radiological, and physical hazards. Our office also conducts workplace indoor air quality surveys in an effort to improve worker health and environment. The data provided, and in the manner it was collected, is not consistent in the collection method used in assessing occupational exposure and should not be used to calculate workers occupational exposure.

3. Our review of the Shaw Environmental sampling results is consistent with one's expectation of volatile organic compounds (VOC) air concentration that is seen in ambient air concentration in most US cities. Indoor air concentrations measured also fell within the ambient air concentration of most US cities. Considering this is a major bulk fuel storage facility and values are still within normal ambient US cities levels we consider these levels negligible. Underground leaks from storage tanks are typically not considered a quantifiable pathway of exposure or a quantifiable source of air emissions. Once tank excavation and initial site action/site remediation efforts begin air emissions should be expected. Emissions from soil would be expected as the tank is being removed and when soil is deposited on the ground before treatment/disposal occurs. The rate of VOC release from soils during remediation events is highly variable; most research on soil remediation activities has shown that the majority of VOC contaminants are volatilized during the first few days of the remediation event.

4. From the data provided and under the current operation observed we do not anticipate any harmful exposures. Additional evaluations will be necessary if site remediation was to be accomplished. Please contact the undersigned regarding any questions at 505 846-3618.

PAUL J. LEGENDRE, Lt Col, BSC USAF
Bioenvironmental Engineering Flight Commander

ATTACHMENT 2

Field Activity Daily Logs, Sample Collection Logs, and Chain-of-Custody Record

Shaw® Shaw Environmental, Inc.

FIELD ACTIVITY DAILY LOG

DAILY LOG	DATE	01	14	13
	NO.			
	SHEET	1	OF	5

PROJECT NAME: KAFB BFF | PROJECT NO.: 140705

FIELD ACTIVITY SUBJECT: Indoor Air Evaluation

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

0625 - Arrive at KAFB, talk to John and Pat O.
0700 - Safety Meeting
0722 - Drive to BFF, sign in
0725 - Start setting up ambient samples

Can 403, regulator 403, cane 403 for ambient 1026
Flow 11.5 mL/min regulator for 6L can
Shut-In Test @ 0727, 1 min, prior to opening, 20 in Hg
Start Time - 0730, Initial Pressure 24.5 in, sampling height 5'1"

Can 14890, regulator 14890, cane 14890 for ambient 1032
Flow 11.5 mL/min regulator for 6L can
Shut-In Test @ 0734, 1 min, prior to opening, 20 in Hg
Start Time - 0738, Initial Pressure 26.5 in, sampling height 4'7"

Can 33677, regulator 33677, cane 33677 for ambient 1033
Flow 11.5 mL/min regulator for 6L can
Shut-In Test @ 0740, 1 min, prior to opening, 20 in Hg
Start Time - 0743, Initial Pressure 24 in, sampling height 5'

0745 - Start assembling indoor samples

Can 96115, regulator 96115, cane 96115 for indoor 1026
Flow 11.5 mL/min regulator for 6L can

VISITORS ON SITE:
None

CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS:
None

WEATHER CONDITIONS:
Very cold, windy, cloudy.

IMPORTANT TELEPHONE CALLS:

SHAW E&I PERSONNEL ON SITE: Kimberly Kendall, Rachel Daly

SIGNATURE: Kimberly Kendall DATE: 01/14/13

327C-12-98

Field Activity Daily Log Continuation Sheet

DATE	01	14	13
NO.			
SHEET	2	OF	5

Project Name: KAFB BFF Project No. 140705

Field Activity Subject: Indoor Air Evaluation

Description of Daily Activities and Events:

Shut-In Test @ 0750, 1 min prior to opening, 20 in Hg
Start Time - 0810, Initial Pressure 25 in, sampling height 4'10"

Can 4187, regulator 4187, cane 4187 for indoor 1032-1
Flow 11.5 mL/min regulator for 6L can
Shut-In Test @ 0756, 1 min prior to opening, 20 in Hg
Start Time - 0815, Initial Pressure 25.5 in, sampling height 4'10"

Can 25301, regulator 25801, cane 25801 for indoor 1032-2
Duplicate can 9567, regulator 9567, cane 25801 for dup 1032-2
Flow 11.5 mL/min regulator for 6L can 5
Shut-In Test @ 0800, 1 min prior to opening, 20 in Hg
Star Time -0817, Initial Pressure 25.5in (25301) and 25in (9567), height 5'1"

Can 34486, regulator 34486, cane 34486 in indoor 1033
Flow 11.5 mL/min regulator for 6L can
Shut-In Test @ 0807, 1 min prior to opening, 20 in Hg
Start Time - 0820, Initial Pressure 26 in, sampling height 4'11"

0825 - Observation and picture time

Location Ambient 1026 @ 0825
8 mph wind from east, 23.8°F, 41.0% humidity, 24.76 in Hg
Photos 1+2

Location Indoor 1026 @ 0827
0 mph wind, 30.5°F, 39.9% humidity, 24.76 in Hg
Photo 3, facing SW corner

01/14/13 KR ~~7 mph wind, 22.2°F~~

Location Ambient 1032 @ 0831
7 mph, Wind, 22.2°F, 49.8% humidity, 24.76 in Hg
Photo 4, facing west

Field Activity Daily Log Continuation Sheet

DATE	01	14	13
NO.			
SHEET	3	OF	5

Project Name: KAFB BFF Project No. 140705

Field Activity Subject: Indoor Air Evaluation

Description of Daily Activities and Events:

Location Indoor 1032-1 @ 0835
0 mph wind, 47°F, 29.2% humidity, 24.76 in Hg
Photo 5, facing south

Location Indoor 1032-2 @ 0838
0 mph wind, 53°F, 23.5% humidity, 24.76 in Hg
Photo 6 + 7, facing west and south

Location Ambient 1033 @ 0842
6 mph wind from east, 22.8°F, 44.8% humidity, 24.76 in Hg
Photo 8, facing west

Location Indoor 1033 @ 0845
0 mph wind, 50°F, 23.5% humidity, 24.76 in Hg
Photo 9, facing east

All buildings, concrete block construction, concrete slab, single story
1026 48" above grade
1032 at grade foundation
1033 14" above grade

0900 - Wait, will check pressures at 10:30 am, fill out paperwork, Rachel leaves for Office
0958 - Check pressures on summa canisters

Can 403 - 17 in @ 1000
Can 96115 - 20 in @ 1001
Can 14890 - 19.5 in @ 1002
Can 33677 - 18 in @ 1003
Can 34486 - 22 in @ 1003
Can 25301 - 20.5 in @ 1005
Can 9567 - 20.5 in @ 1005
Can 4187 - 21 in @ 1006

Ambient environment: 5 mph wind from east, 27.9°F, 40.3% humidity, 24.76 in

Field Activity Daily Log Continuation Sheet

DATE	01	14	13
NO.			
SHEET	4	OF	5

Project Name: KAFB BFF Project No. 140705

Field Activity Subject: Indoor Air Evaluation

Description of Daily Activities and Events:

1015 - All canisters are on track, will check pressures again in 2 hours
1100 - Lunch
1105 - Light snow
1130 - Arrive back at BFF
1156 - Check pressures on summa canisters

Can 403 - 12.5 in @ 1157
Can 96115 - 15 in @ 1158
Can 14890 - 14 in @ 1200
Can 33677 - 13 in @ 1201
Can 34486 - 16.5 in @ 1202
Can 25301 - 15.5 in @ 1203
Can 9567 - 15 in @ 1203
Can 4187 - 15 in @ 1204

Ambient environment: 2 mph wind from NE, 30.5°F, 41% humidity, 24.72 in Hg, snowing
1215 - All canisters are on track, will check pressures again at 1330
1327 - Check pressures on summa canisters

Can 25301 - 12 in @ 1328
Can 9567 - 12 in @ 1328
Can 4187 - 11.5 in @ 1329
Can 14890 - 10.5 in @ 1330
Can 403 - 9.5 in @ 1331
Can 96115 - 11.5 in @ 1332
Can 33677 - 9.5 in @ 1334
Can 34486 - 12.5 in @ 1334

Ambient environment: 1 mph wind from SE, 43°F, 36.6% humidity, 24.71 in Hg, snow
1400 - All canisters on track, will start collecting canisters at 1530
1449 - Check pressures on summa canisters, all on track
1505 - Rachel back onsite
1510 - Check pressures on summa canisters
1530 - Collect KAFB-Ambient-1026, Final Pressure 6 in
1540 - Collect KAFB-Ambient-1032, Final Pressure 7.5 in

Field Activity Daily Log Continuation Sheet

DATE	01	14	13
NO.			
SHEET	5	OF	5

Project Name: KAFB BFF Project No. 140705

Field Activity Subject: Indoor Air Evaluation

Description of Daily Activities and Events:

1545 - Collect KAFB-Ambient-1033, Final Pressure 6.5 in
1610 - Collect KAFB-Indoor-1026, Final Pressure 7 in
1615 - Collect KAFB-Indoor-1032-1, Final Pressure 6.5in
1620 - Collect KAFB-Indoor-1032-2 and KAFB-Air-Dup, Final Pressures 7.5in +7.5in
1623 - Collect KAFB-Indoor-1033, Final Pressure 8 in
1630 - Drive back to Shaw Trailer
1635 - Make copies
1645 - Leave site

Kimberly Randall 1/14/13

0.25 in x 0.25 in

Form Number: 140_2
Rev. 01-03-10

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager Diane Agnew

Collected by: (Print and Sign) Kimberly Kendall

Company Shaw Environmental Email kimberly.kendall@shawgrp.com

Address 2440 Louisiana NE, 300 City Albuquerque State NM Zip 87110

Phone 505-262-8750 Fax 505-262-8855

Project Info:
P.O. # 794938
Project # 140705
Project Name KAFB BFF

Turn Around Time:
☒ Normal
☐ Rush
specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D:	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested (KK 1/14/13)	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
	KAFB - Ambient - 1026	403	01/14/13	Start 0730 End 1330 (1530)	TO - 15 LL	24.5	6		
	KAFB - Ambient - 1032	14890	01/14/13	Start 0738 End 1540	TO - 15 LL	26.5	7.5		
	KAFB - Ambient - 1033	33677	01/14/13	Start 0743 End 1545	TO - 15 LL	24	6.5		
	KAFB - Indoor - 1026	96115	01/14/13	Start 0810 End 1610	TO - 15 LL	25	7		
	KAFB - Indoor - 1032 - 1	4187	01/14/13	Start 0815 End 1615	TO - 15 LL	25.5	6.5		
	KAFB - Indoor - 1032 - 2	25301	01/14/13	Start 0817 End 1620	TO - 15 LL	25.5	7.5		
	KAFB - Indoor - 1033	34486	01/14/13	Start 0820 End 1623	TO - 15 LL	26	8		
	KAFB - Air - Dup	9567	01/14/13	Start 0800 End 1680	TO - 15 LL	25	7.5		

Relinquished by: (signature) Date/Time	Received by: (signature) Date/Time	Notes:
Kimberly Kendall 1/15/13 0900		
Relinquished by: (signature) Date/Time	Received by: (signature) Date/Time	
Relinquished by: (signature) Date/Time	Received by: (signature) Date/Time	

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact? Yes No None	Work Order #

Form 1293 rev.11

Air Field Logsheet

Shaw Shaw E & I

Site Name: KAFB BFF

Project #: 140705

Sample ID: KAFB-Ambient-1026	Sample Location Sketch:
Date Sampled: 01/14/13	
Time Sampled: Start 0730 End 1530	
Sampling Technique: Summa Canister 6L	
Analyses:	
TO-15 LL	
Field Reading / Calibration Date	
Initial 24.5 / Calibrated by lab	
Final 6 / Can 403	
	Photograph Log #: Photos 1+2

Weather: Cold, cloudy, Windy
Temperature: 25 °F
Sampling Equipment: Summa canister with 8 hr regulator, with sampling cane
Equipment Decon Technique: N/A
QC Samples: N/A
Analytical Laboratory: Eurofins Air Toxics
Comments: N/A
Field Technician: (Print) Kimberly Kendall Kimberly Kendall Date: 01/14/13

Air Field Logsheet

Shaw™ Shaw E & I

Site Name: KAFB BFF

Project #: 140705

Sample ID: KAFB-Ambient-1032	Sample Location Sketch:
Date Sampled: 01/14/13	
Time Sampled: Start 0738 End 1540	
Sampling Technique: Summa Canister	
Analyses:	
TO-15 LL	
Field Reading / Calibration Date	
Initial 26.5 / Calibrated by lab	
Final 7.5 / Can 14890	
	Photograph Log #: Photo 4

Weather: Cold, cloudy, windy
Temperature: 25 °F
Sampling Equipment: Summa canister with 8 hr regulator, with sampling cane
Equipment Decon Technique: N/A
QC Samples: N/A
Analytical Laboratory: Eurofins Air Toxics
Comments: N/A
Field Technician: (Print) Kimberly Kendall Kimberly Kendall Date: 01/14/13

Air Field Logsheet

Shaw™ Shaw E & I

Site Name: KAFB BFF

Project #: 140705

Sample ID: KAFB-Ambient-1033	Sample Location Sketch:
Date Sampled: 01/14/13	
Time Sampled: Start 0743 End 1545	
Sampling Technique: Summa canister	
Analyses:	
TO-15 LL	
Field Reading: Inital 24	Calibration Date: Calibrated by lab
Final 6.5	Can 33677
	Photograph Log #: Photo 8

Weather: Cold, cloudy, windy
Temperature: 25 °F
Sampling Equipment: 6L Summa canister with 8 hr regulator, with sampling cane
Equipment Decon Technique: N/A
QC Samples: N/A
Analytical Laboratory: Eurofins Air Toxics
Comments: N/A
Field Technician: (Print) Kimberly Kendall Kimberly Kendall Date: 01/14/13

Air Field Logsheet

Shaw Shaw E & I

Site Name: KAFB BFF

Project #: 140705

Sample ID: KAFB-Indoor-1026	Sample Location Sketch:
Date Sampled: 01/14/13	
Time Sampled: Start 0810 End 1610	
Sampling Technique: Summa Canister	
Analyses:	
TO-15 LL	
Field Reading	Calibration Date
Initial 25	Calibrated by lab
Final 7	Can 96115
	Photograph Log #: Photo 3

Weather: Indoors
Temperature: 35 °F
Sampling Equipment: Summa Canister with 8 hr regulator, with sampling cane
Equipment Decon Technique: N/A
QC Samples: N/A
Analytical Laboratory: Eurofins Air Toxics
Comments: N/A
Field Technician: (Print) Kimberly Kendall Kimberly Kendall Date: 01/14/13

Air Field Logsheet

Shaw E & I

Site Name: KAFB BFF

Project #: 140705

Sample ID: KAFB - Indoor - 1032 - 1	Sample Location Sketch:
Date Sampled: 01/14/13	
Time Sampled: Start 0815 End 1615	
Sampling Technique: 6L Summa Canister	
Analyses:	
TO-15 LL	
Field Reading / Calibration Date	
Initial 25.5 / Calibrated by lab	
Final 6.5 / Can 4187	
	Photograph Log #: Photo 5

Weather:	Indoors
Temperature:	47 °F
Sampling Equipment:	Summa canister with 8 hr regulator, with sampling cane
Equipment Decon Technique:	N/A
QC Samples:	N/A
Analytical Laboratory:	Eurofins Air Toxics
Comments:	N/A
Field Technician: (Print)	Kimberly Kendall Kimberly Kendall Date: 01/14/13

Air Field Logsheet

Shaw Shaw E & I

Site Name: KAFB BFF

Project #: 140705

Sample ID: KAFB - Indoor - 1032 - 2	Sample Location Sketch:
Date Sampled: 01/14/13	
Time Sampled: Start 0817 End 1620	
Sampling Technique: 6L Summa Canister	
Analyses:	
TO-15 LL	
Field Reading / Calibration Date	
Initial 25.5 / Calibrated by lab	
Final 7.5 / Can 25301	
	Photograph Log #: Photos 6+7

Weather: Indoors	
Temperature: 53 °F	
Sampling Equipment: Summa canister with 8 hr regulator, with sampling cane	
Equipment Decon Technique: N/A	
QC Samples: KAFB - Air - Dup, Can 9567, Initial 25, Final 7.5	
Analytical Laboratory: Eurofins Air Toxics	
Comments: N/A	
Field Technician: (Print) Kimberly Kendall Kimberly Kendall	Date: 01/14/13

Air Field Logsheet

Shaw Shaw E & I

Site Name: KAFB BFF

Project #: 140705

Sample ID: KAFB - Indoor - 1033	Sample Location Sketch:
Date Sampled: 01/14/13	
Time Sampled: Start 0820 End 1623	
Sampling Technique: 6L Summa Canister	
Analyses:	
TO - 15 LL	
Field Reading / Calibration Date	
Initial 26 / Calibrated by lab	
Final 8 / Can 34486	
	Photograph Log #: Photo 9

Weather:	Indoors
Temperature:	50 °F
Sampling Equipment:	Summa canister with 8 hr regulator, with sampling cane
Equipment Decon Technique:	N/A
QC Samples:	N/A
Analytical Laboratory:	Eurofins Air Toxics
Comments:	N/A
Field Technician: (Print)	Kimberly Kendall Kimberly Kendall Date: 01/14/13

Shaw® Shaw Environmental, Inc.

FIELD ACTIVITY DAILY LOG

DAILY LOG	DATE	07	17	12
	NO.			
	SHEET 1 OF 5			

PROJECT NAME: KAFB BFF | PROJECT NO.: 140705

FIELD ACTIVITY SUBJECT: Indoor Air Evaluation

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

0640 - Arrive at KAFB
0645 - Arrive at Project Trailer, sign JSA/Tailgate
0700 - Safety Meeting
0730 - Get equipment together.
0735 - PID 2 (Shaw 70922), calibrated at 98
0745 - John S. gives a ride to BFF, sign into BFF
0750 - Start setting up ambient air samples, Diane A. approves 1 ambient sample for 1026 and 1032

Can 33864, regulator and cane 33864 for ambient 1026 and 1032, 24' east
Flow 11.5 mL/min regulator for 6L can
Shut-In Test @ 0801, 1 min, prior to opening, 20 in Hg
Start Time - 0806, Initial Pressure 25.5 in, sampling height 5'1", umbrella on can

Can 33937, regulator and cane 33937 for ambient 1033
Flow 11.5 mL/min regulator for 6L can
Shut-In Test @ 0816, 1 min, prior to opening, 20 in Hg
Start Time - 0820, Initial Pressure 26 in, sampling height 5'0.5", umbrella on can

0825 - Start setting up indoor samples

Can 909, regulator and cane 909 for indoor 1032-1
Flow 11.5 mL/min regulator for 6L can
Shut-In Test @ 0829, 1 min, prior to opening, 20 in Hg
Start Time - 0850

VISITORS ON SITE:
None

CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS:
1 ambient for 1026 and 1032

WEATHER CONDITIONS:
Partly cloudy, slightly windy, 88°F

IMPORTANT TELEPHONE CALLS:
Diane Agnew @ 0750

SHAW E&I PERSONNEL ON SITE: Kimberly Kendall, Phil Osborn

SIGNATURE: Kimberly Kendall DATE: 7/17/12

Shaw® Shaw Environmental, Inc.

FIELD ACTIVITY DAILY LOG CONTINUATION SHEET

DAILY LOG	DATE	07	17	12
	NO.			
	SHEET 2 OF 5			

PROJECT NAME: KAFB BFF | PROJECT NO.: 140705

FIELD ACTIVITY SUBJECT: Indoor Air Evaluation

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

Can 940, regulator and cane 940 for indoor 1032-2, shower room
Duplicate can 34429, regulator 34429 and cane 940, dup for 1032-2
Flow 11.5 mL/min for 6L can
Shut-In Test @0841, 1 min, prior to opening, 20 in Hg
Start Time - 0846, Initial pressure 27.5 and 26.5, sampling height 5'

Can 5551, regulator and cane 5551 for indoor 1026
Flow 11.5 mL/min for 6L can
Shut-In Test @ 0854, 1 min, prior to opening, 20 in Hg
Start Time - 0900, Initial pressure 26, sampling height 5'
PID 0.4 - 0.5 ppm

Can 12693, regulator and cane 12693 for indoor 1033
Flow 11.5 mL/min for 6L can
Shut-In Test @ 0907, 1 min, prior to opening, 20 in Hg
Start Time - 0910, Initial pressure 26, sampling heigh 5'

0913 - Observation and picture time

Ambient 1032, 1.8 mph NE wind, 24.83 in Hg, 83°F 78 °F, 37.5 % humidity @0917
Ambient 1033, 1.1 mph NE wind, 24.82 in Hg, 81°F, 33.2% 25.2% humidity @0920
Wind direction variable

Photo 1 - NW - ambient 1033 setup
Photo 2 - NE - indoor 1033 setup
Photo 3 - N - indoor 1033 setup far
Photo 4 - SW - ambient 1032 setup
Photo 5 - SW - ambient 1032 setup far
Photo 6 - NW - SVE system next to 1026, PID 8.0 ppm readings, propane exhaust
Photo 7 - S - indoor 1032-1 setup
Photo 8 - S - indoor 1032-2 setup with duplicate
Photo 9 - W - indoor 1026 setup
Photo 10 - NW - lab equipment + supplies at 1026

Shaw® Shaw Environmental, Inc.

FIELD ACTIVITY DAILY LOG CONTINUATION SHEET

DAILY LOG	DATE	07	17	12
	NO.			
	SHEET 3 OF 5			

PROJECT NAME: KAFB BFF | PROJECT NO.: 140705

FIELD ACTIVITY SUBJECT: Indoor Air Evaluation

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

All buildings, concrete block construction, concrete slab, single story
1032 at grade foundation
1026 48" above grade
1033 14" above grade
No crawl spaces, no basements
1033 partially painted floor, no cracks in floor, no floor drains or sumps
1032-1 carpet
1032-2 drain by shower

0951 - Check PID reading in Building 1032 garage 0.0 ppm, no ventilation in garage, one electric heater

0954 - Observations of 1032-2, one floor drain, one shower drain, 0.0 ppm, no duct work at all, no exhaust fans, roof AC unit

@955, can 34429 - 23 1/2 in
@956, can 940 - 24 1/2 in

Gas water heater in bathroom, 0.0 ppm floor drain no duct work
Office, 1 overhead AC vent, 2 electric wall heaters, no visible cracks

@958, can 909, 22 1/2 in
@1000, can 33864, 20 1/2 in, ambient PID reading 0.4 ppm

1001 - Building 1026 Observations, painted floors?, tile in fuel hose room

@1001, can 5551, 23 1/2 in

Fuel absorbent supplies in adjacent room, west door 1/2 in crack, not air tight, poorly sealed

1007 - Building 1033 observations, outside 0.0 ppm on PID

@1008, can 12693, 24 in

Shaw Environmental, Inc.

FIELD ACTIVITY DAILY LOG CONTINUATION SHEET

DAILY LOG	DATE	07	17	12
	NO.			
	SHEET 4 OF 5			

PROJECT NAME: KAFB BFF | PROJECT NO.: 140705

FIELD ACTIVITY SUBJECT: Indoor Air Evaluation

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

Cracks and gaps around door, Natural gas heating and AC, all doors closed today, east wall cracks

@1013, can 33937, 22 in

1015 - Finish up observations, leave summa canisters to collect, all look like they are running correctly

1019 - wind 3.3 mph from east, 85° F, 33.9% humidity, 24.82 in Hg

1025 - Drive back to Shaw Trailer

1100 - Lunch

1200 - Arrive back on site, go to Shaw Trailer

1232 - Drive out to BFF, check umbrellas / fix umbrellas

Ambient - 6 mph wind from NW, 85°F, 28.1% humidity, 24.78 in Hg @1236

@1238, can 940, 17½ in
@1238, can 34429, 16 in
@1239, can 909, 15½ in, fan now present in NE corner, on full blast
@1240, can 33864, 13½ in
@1242, can 5551, 16½ in, 0.6 ppm reading from PID
@1244, can 33937, 15 in
@1245, can 12693, 17 in

Building 1032, no PID hits from any piping in floor, all 0.0 ppm

1255 - Decide to move ambient air canisters to more upgradient position, wind moved from east to northwest.

1400 - Drive back to Shaw Trailer

1530 - Drive back into BFF

Field Activity Daily Log Continuation Sheet

DATE	07	17	12
NO.			
SHEET	5	OF	5

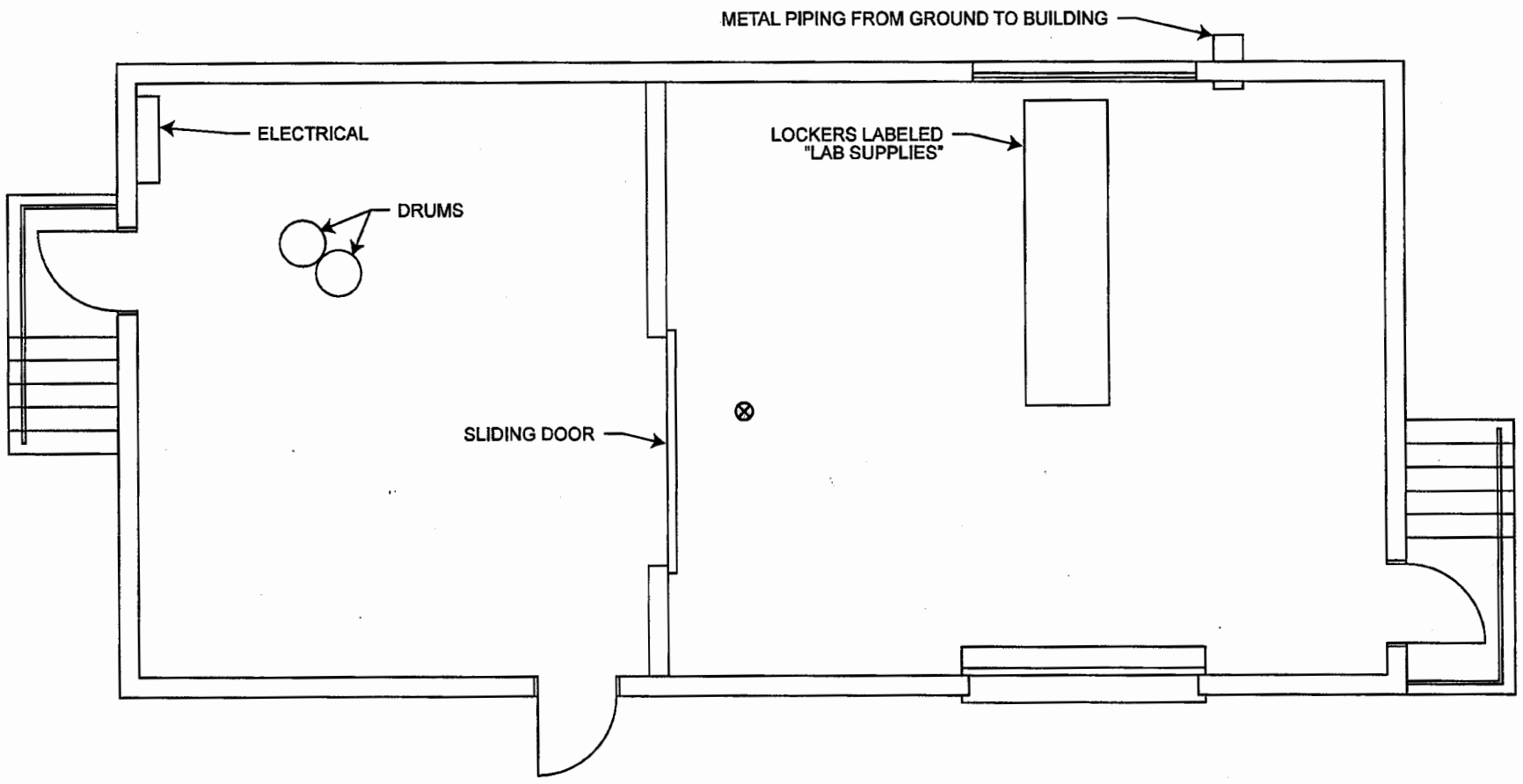
Project Name: KAFB BFF Project No. 140705

Field Activity Subject: Indoor Air Evaluation

Description of Daily Activities and Events: Indoor and Ambient Air Sampling

1539 - wind 6 mph from NW , 90.3°F, 21.9% humidity , 24.72 in Hg
1607 - Collect Ambient air sample KAFB-Ambient-1032, Final Pressure 7.5 in
1620 - Collect Ambient air sample KAFB-Ambient-1033, Final Pressure 8.0 in
1653 - Collect Indoor air sample KAFB-Indoor-1032-1, Final Pressure 7.5 in
1703 - Collect Indoor air sample KAFB-1026, Final Pressure 8.0 in
1712 - Collect Indoor air sample KAFB-Indoor-1033, Final Pressure 8.0 in
1715 - Collect Indoor air sample KAFB-Indoor-1032-2 and Duplicate sample KAFB-Air-Dup, Final Pressure 8.5 in and 7.0 in
1720 - Pack up equipment into truck
1730 - Drive to Shaw Trailer
1735 - Finish paperwork and make copies
1745 - Leave site

7/17/12



Indoor Air Guys
Nate, Nick, Travis
846-1066

N

NOT TO SCALE

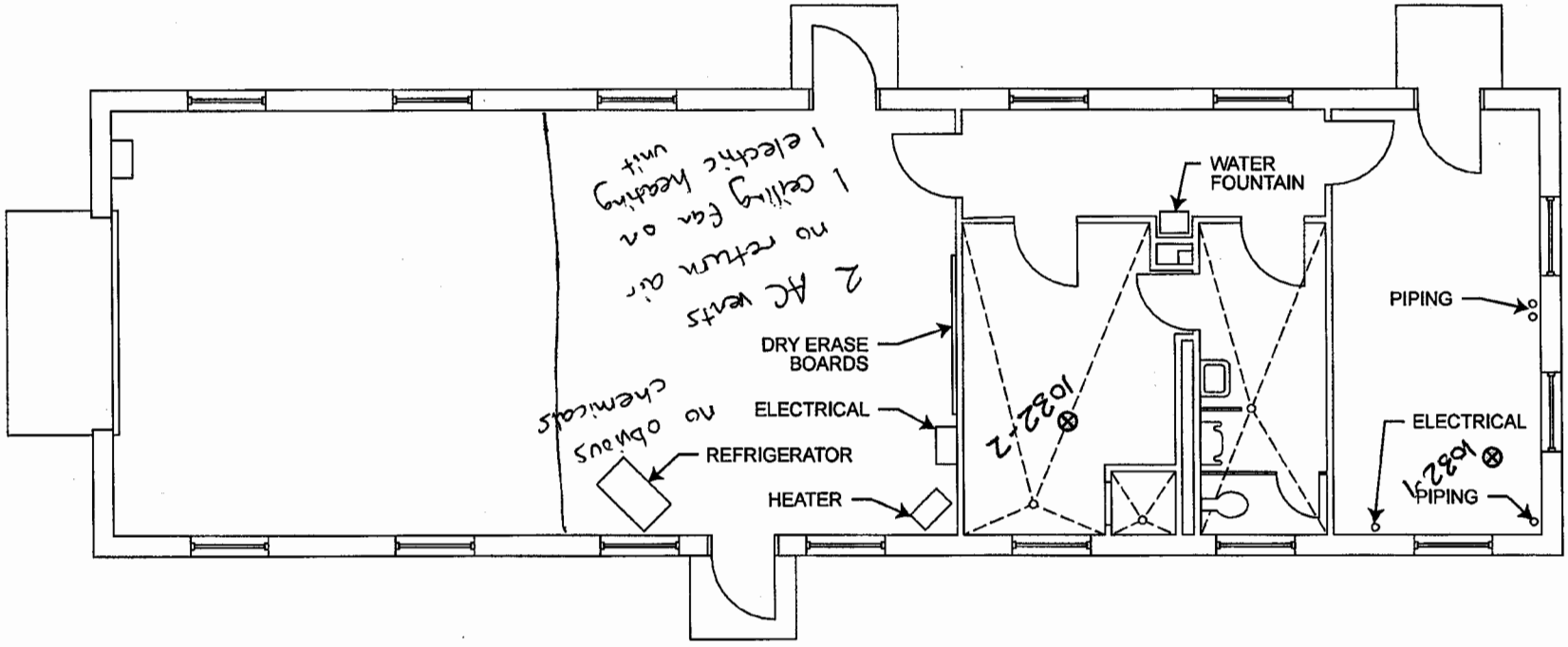
LEGEND

⊗ Proposed Sampling Location

INDOOR AIR QUALITY WORK PLAN
BULK FUELS FACILITY
KIRTLAND AIR FORCE BASE, NEW MEXICO

FIGURE 5-1
BUILDING 1026 FLOOR PLAN AND
PROPOSED SAMPLING LOCATION

140705.AB030070 A3



N

NOT TO SCALE

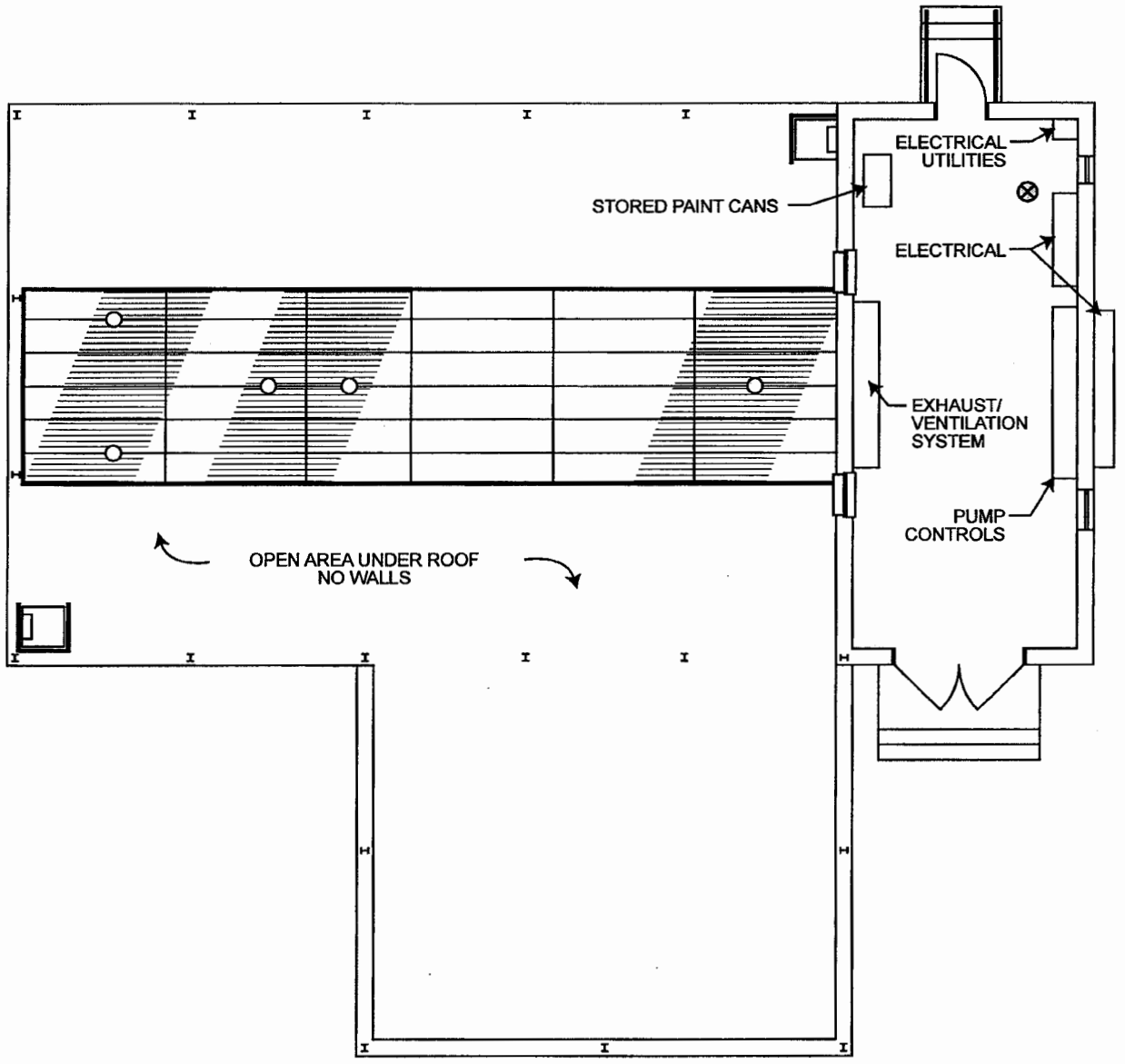
LEGEND

⊗ Proposed Sampling Location

INDOOR AIR QUALITY WORK PLAN
BULK FUELS FACILITY
KIRTLAND AIR FORCE BASE, NEW MEXICO

FIGURE 5-2
BUILDING 1032 FLOOR PLAN AND
PROPOSED SAMPLING LOCATION

140705.AB030070 A2



LEGEND

⊗ Proposed Sampling Location

N

NOT TO SCALE

INDOOR AIR QUALITY WORK PLAN
BULK FUELS FACILITY
KIRTLAND AIR FORCE BASE, NEW MEXICO

FIGURE 5-3
BUILDING 1033 FLOOR PLAN AND
PROPOSED SAMPLING LOCATION

140705.AB030070 A1

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager Diane Agnew

Collected by: (Print and Sign) Kimberly Kendall Kimberly Kendall

Company Shaw Environmental Email kimberly.kendall@shawgrp.com

Address 2440 Louisana NE City Albuquerque State NM Zip 87110

Phone 505-262-8750 Fax 505-262-8855

Project Info:
P.O. # 794938
Project # 140705
Project Name KAFB BFP

Turn Around Time:
☒ Normal
☐ Rush
specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
	KAFB - Ambient - 1032	33864	7/17/12	Start 0806 End 1607	TO-15 LL	25.5	7.5		
	KAFB - Ambient - 1033	33937	7/17/12	Start 0820 End 1620	TO-15 LL	26	8.0		
	KAFB - Indoor - 1032-1	909	7/17/12	Start 0850 End 1653	TO-15 LL	25.5	7.5		
	KAFB - Indoor - 1032-2	940	7/17/12	Start 0846 End 1715	TO-15 LL	27.5	8.5		
	KAFB - Indoor - 1026	5551	7/17/12	Start 0900 End 1703	TO-15 LL	26	8.0		
	KAFB - Indoor - 1033	12693	7/17/12	Start 0910 End 1712	TO-15 LL	26	8.0		
	KAFB - Air - Dup	34429	7/17/12	Start 0800 End 1600	TO-15 LL	26.5	7.0		

Relinquished by: (signature) Date/Time	Received by: (signature) Date/Time	Notes:
Kim Kendall Kimberly Kendall 7/17/12 1800		
Relinquished by: (signature) Date/Time	Received by: (signature) Date/Time	
Relinquished by: (signature) Date/Time	Received by: (signature) Date/Time	

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact? Yes No None	Work Order #

Form 1293 rev.11

Ref: 86134
Dep:

Date: 13Jul12
Wgt: 2.00 LBS
DV:

SHIPPING: 0.00
SPECIAL: 0.00
HANDLING: 0.00
0.00 TOTAL: 0.00

Svcs: ** 2DAY ** Master 4080 5036 5859
TRCK: 4080 5036 5859

Ref:
Dep:

Svcs: ** 2DAY ** Master 4080 5036 5859
TRCK: 4080 5036 5870

Date: 13Jul12
Wgt: 37.00 LBS
DV:

0.00 SHIPPING: 0.00
SPECIAL: 0.00
HANDLING: 0.00
TOTAL: 0.00

Ref: 86134
Dep:

Svcs: ** 2DAY ** Master 4080 5036 5859
TRCK: 4080 5036 5860

Date: 13Jul12
Wgt: 37.00 LBS
DV:

0.00 SHIPPING: 0.00
SPECIAL: 0.00
HANDLING: 0.00
TOTAL: 0.00

ATTACHMENT 3

Laboratory Analytical Data Package

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8/9/2012
Ms. Kimberly Kendall
Shaw Environmental & Infrastructure
2400 Louisiana Blvd. NE
Suite 300 AFC #5
Albuquerque NM 87110

Project Name: KAFB BFF
Project #: 140705
Workorder #: 1207441

Dear Ms. Kimberly Kendall

The following report includes the data for the above referenced project for sample(s) received on 7/20/2012 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kelly Buettner

Project Manager

eurofins | Air Toxics

WORK ORDER #: 1207441

Work Order Summary

CLIENT:	Ms. Kimberly Kendall Shaw Environmental & Infrastructure 2400 Louisiana Blvd. NE Suite 300 AFC #5 Albuquerque, NM 87110	**BILL TO:**	Baton Rouge Accounts Payable Shaw Environmental & Infrastructure P.O. Box 98519 Baton Rouge, LA 70884
PHONE:		**P.O. #**	794938
FAX:		**PROJECT #**	140705 KAFB BFF
DATE RECEIVED:	07/20/2012	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	08/09/2012		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	KAFB-Ambient-1032	Modified TO-15	12.5 "Hg	5 psi
01B	KAFB-Ambient-1032	Modified TO-15	12.5 "Hg	5 psi
02A	KAFB-Ambient-1033	Modified TO-15	12.5 "Hg	5 psi
02B	KAFB-Ambient-1033	Modified TO-15	12.5 "Hg	5 psi
03A	KAFB-Indoor-1032-1	Modified TO-15	12.0 "Hg	5 psi
03AA	KAFB-Indoor-1032-1 Lab Duplicate	Modified TO-15	12.0 "Hg	5 psi
03B	KAFB-Indoor-1032-1	Modified TO-15	12.0 "Hg	5 psi
03BB	KAFB-Indoor-1032-1 Lab Duplicate	Modified TO-15	12.0 "Hg	5 psi
04A	KAFB-Indoor-1032-2	Modified TO-15	10.0 "Hg	5 psi
04B	KAFB-Indoor-1032-2	Modified TO-15	10.0 "Hg	5 psi
05A	KAFB-Indoor-1026	Modified TO-15	11.0 "Hg	5 psi
05B	KAFB-Indoor-1026	Modified TO-15	11.0 "Hg	5 psi
06A	KAFB-Indoor-1033	Modified TO-15	12.0 "Hg	5 psi
06B	KAFB-Indoor-1033	Modified TO-15	12.0 "Hg	5 psi
07A	KAFB-Air-Dup	Modified TO-15	11.0 "Hg	5 psi
07B	KAFB-Air-Dup	Modified TO-15	11.0 "Hg	5 psi
08A	Lab Blank	Modified TO-15	NA	NA
08B	Lab Blank	Modified TO-15	NA	NA
09A	CCV	Modified TO-15	NA	NA
09B	CCV	Modified TO-15	NA	NA
10A	LCS	Modified TO-15	NA	NA
10AA	LCSD	Modified TO-15	NA	NA
10B	LCS	Modified TO-15	NA	NA

Continued on next page

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WORK ORDER #: 1207441

Work Order Summary

CLIENT:	Ms. Kimberly Kendall Shaw Environmental & Infrastructure 2400 Louisiana Blvd. NE Suite 300 AFC #5 Albuquerque, NM 87110	**BILL TO:**	Baton Rouge Accounts Payable Shaw Environmental & Infrastructure P.O. Box 98519 Baton Rouge, LA 70884
PHONE:		**P.O. #**	794938
FAX:		**PROJECT #**	140705 KAFB BFF
DATE RECEIVED:	07/20/2012	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	08/09/2012		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
10BB	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 08/09/12

Technical Director

Certfication numbers: AZ Licensure AZ0719, CA NELAP - 02110CA, LA NELAP - 02089, NY NELAP - 11291, TX NELAP - T104704434-11-3, UT NELAP -CA009332011-1, WA NELAP - C935
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act, Accreditation number: E87680, Effective date: 07/01/11 , Expiration date: 06/30/12.
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-15 Full Scan/SIM
Shaw Environmental & Infrastructure
Workorder# 1207441

Seven 6 Liter Summa Canister (100% Certified) samples were received on July 20, 2012. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan and SIM acquisition modes. The method involves concentrating up to 1.0 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	*TO-15*	*ATL Modifications*
ICAL %RSD acceptance criteria	</=30% RSD with 2 compounds allowed out to < 40% RSD	For Full Scan: 30% RSD with 4 compounds allowed out to < 40% RSD For SIM: Project specific; default criteria is </=30% RSD with 10% of compounds allowed out to < 40% RSD
Daily Calibration	+- 30% Difference	For Full Scan: </= 30% Difference with four allowed out up to </=40%.; flag and narrate outliers For SIM: Project specific; default criteria is </= 30% Difference with 10% of compounds allowed out up to </=40%.; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

The results for each sample in this report were acquired from two separate data files originating from the same analytical run. The two data files have the same base file name and are differentiated with a "sim" extension on the SIM data file.

As per project specific client request the laboratory has reported estimated values for target compound

hits that are below the Reporting Limit but greater than the Method Detection Limit. All The canisters used for this project have been certified to the Reporting Limit for the target analytes included in this workorder. Concentrations that are below the level at which the canister was certified may be false positives.

Due to the linear calibration range of the instrument, the reporting limit for Bromomethane was raised from 0.10ppbv to 0.50ppbv.

The reported result for 4-Ethyltoluene in samples KAFB-Indoor-1032-1 and KAFB-Indoor-1033 may be biased high due to co-elution with a non target compound with similar characteristic ions. Both the primary and secondary ion for 4-Ethyltoluene exhibited potential interference.

The RPD of duplicate samples KAFB-Indoor-1032-1 and KAFB-Indoor-1032-1 Lab Duplicate exceeded acceptance limits for some target species due to target compound concentrations present at less than 5X the reporting limit. There is no effect on data quality.

Benzene was manually integrated in Laboratory Blank.

Freon 12 was manually integrated in samples KAFB-Ambient-1032 and KAFB-Indoor-1032-1.

Bromomethane was manually integrated in sample KAFB-Indoor-1032-1.

Freon 12 was manually integrated in the Initail Calibration.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV and/or LCS.

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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2/1/2013
Ms. Kimberly Kendall
Shaw Environmental & Infrastructure
2400 Louisiana Blvd. NE
Suite 300 AFC #5
Albuquerque NM 87110

Project Name: KAFB BFF
Project #: 140705
Workorder #: 1301279

Dear Ms. Kimberly Kendall

The following report includes the data for the above referenced project for sample(s) received on 1/17/2013 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kelly Buettner

Project Manager

WORK ORDER #: 1301279

Work Order Summary

CLIENT:	Ms. Kimberly Kendall Shaw Environmental & Infrastructure 2400 Louisiana Blvd. NE Suite 300 AFC #5 Albuquerque, NM 87110	**BILL TO:**	Baton Rouge Accounts Payable Shaw Environmental & Infrastructure P.O. Box 98519 Baton Rouge, LA 70884
PHONE:		**P.O. #**	794938
FAX:		**PROJECT #**	140705 KAFB BFF
DATE RECEIVED:	01/17/2013	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	01/31/2013		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	KAFB-Ambient-1026	Modified TO-15	10.2 "Hg	5 psi
01B	KAFB-Ambient-1026	Modified TO-15	10.2 "Hg	5 psi
02A	KAFB-Ambient-1032	Modified TO-15	9.2 "Hg	5 psi
02B	KAFB-Ambient-1032	Modified TO-15	9.2 "Hg	5 psi
03A	KAFB-Ambient-1033	Modified TO-15	9.8 "Hg	5 psi
03AA	KAFB-Ambient-1033 Lab Duplicate	Modified TO-15	9.8 "Hg	5 psi
03B	KAFB-Ambient-1033	Modified TO-15	9.8 "Hg	5 psi
03BB	KAFB-Ambient-1033 Lab Duplicate	Modified TO-15	9.8 "Hg	5 psi
04A	KAFB-Indoor-1026	Modified TO-15	10.0 "Hg	5 psi
04B	KAFB-Indoor-1026	Modified TO-15	10.0 "Hg	5 psi
05A	KAFB-Indoor-1032-1	Modified TO-15	11.8 "Hg	5 psi
05B	KAFB-Indoor-1032-1	Modified TO-15	11.8 "Hg	5 psi
06A	KAFB-Indoor-1032-2	Modified TO-15	11.6 "Hg	5 psi
06B	KAFB-Indoor-1032-2	Modified TO-15	11.6 "Hg	5 psi
07A	KAFB-Indoor-1033	Modified TO-15	11.6 "Hg	5 psi
07B	KAFB-Indoor-1033	Modified TO-15	11.6 "Hg	5 psi
08A	KAFB-Air-Dup	Modified TO-15	11.4 "Hg	5 psi
08B	KAFB-Air-Dup	Modified TO-15	11.4 "Hg	5 psi
09A	Lab Blank	Modified TO-15	NA	NA
09B	Lab Blank	Modified TO-15	NA	NA
10A	CCV	Modified TO-15	NA	NA
10B	CCV	Modified TO-15	NA	NA
11A	LCS	Modified TO-15	NA	NA

Continued on next page

eurofins | Air Toxics

WORK ORDER #: 1301279

Work Order Summary

CLIENT:	Ms. Kimberly Kendall Shaw Environmental & Infrastructure 2400 Louisiana Blvd. NE Suite 300 AFC #5 Albuquerque, NM 87110	**BILL TO:**	Baton Rouge Accounts Payable Shaw Environmental & Infrastructure P.O. Box 98519 Baton Rouge, LA 70884
PHONE:		**P.O. #**	794938
FAX:		**PROJECT #**	140705 KAFB BFF
DATE RECEIVED:	01/17/2013	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	01/31/2013		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
11AA	LCSD	Modified TO-15	NA	NA
11B	LCS	Modified TO-15	NA	NA
11BB	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 02/01/13

Technical Director

Certfication numbers: AZ Licensure AZ0775, CA NELAP - 12282CA, NY NELAP - 11291, TX NELAP - T104704434-12-5, UT NELAP CA009332012-3, WA NELAP - C935
Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2011, Expiration date: 10/17/2012.
Eurofins Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-15 Full Scan/SIM
Shaw Environmental & Infrastructure
Workorder# 1301279

Eight 6 Liter Summa Canister (100% Certified) samples were received on January 17, 2013. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan and SIM acquisition modes. The method involves concentrating up to 1.0 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	*TO-15*	*ATL Modifications*
ICAL %RSD acceptance criteria	</=30% RSD with 2 compounds allowed out to < 40% RSD	For Full Scan: 30% RSD with 4 compounds allowed out to < 40% RSD For SIM: Project specific; default criteria is </=30% RSD with 10% of compounds allowed out to < 40% RSD
Daily Calibration	+- 30% Difference	For Full Scan: </= 30% Difference with four allowed out up to </=40%.; flag and narrate outliers For SIM: Project specific; default criteria is </= 30% Difference with 10% of compounds allowed out up to </=40%.; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

The results for each sample in this report were acquired from two separate data files originating from the same analytical run. The two data files have the same base file name and are differentiated with a "sim" extension on the SIM data file.

As per project specific client request the laboratory has reported estimated values for target compound

hits that are below the Reporting Limit but greater than the Method Detection Limit. All The canisters used for this project have been certified to the Reporting Limit for the target analytes included in this workorder. Concentrations that are below the level at which the canister was certified may be false positives.

Methylene Chloride was detected in the laboratory blank analyzed on January 23, 2013 at greater than 1/2X the reporting limit.

1,1,1-Trichloroethane, Freon 114, Benzene and 1,2-Dibromoethane were manually integrated in the initial calibration.

Benzene and 1,2-Dibromoethane were manually integrated in the Lab Blank analyzed on January 23, 2013.

Ethanol exceeded the instrument's calibration range for sample KAFB-Indoor-1032-1 and was flagged accordingly.

3-chloropropene exceeded DOD acceptance criteria of 70-130% in the ICV analyzed on 1/21/13. The %R for 3- chloropropene in the ICV was 152%.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV and/or LCS.

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Ambient-1026		
Lab ID:	1301279-01A	Date/Time Analyzed:	1/23/13 05:58 PM
Date/Time Collecte	1/14/13 03:30 PM	Dilution Factor:	2.03
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	msda.i / a012308

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.38	1.1	1.1	Not Detected U
1,1,2,2-Tetrachloroethane	79-34-5	0.34	1.4	1.4	Not Detected U
1,1,2-Trichloroethane	79-00-5	0.43	1.1	1.1	Not Detected U
1,1-Dichloroethane	75-34-3	0.21	0.82	0.82	Not Detected U
1,1-Dichloroethene	75-35-4	0.35	0.80	0.80	Not Detected U
1,2,4-Trichlorobenzene	120-82-1	1.2	1.5	7.5	Not Detected U
1,2,4-Trimethylbenzene	95-63-6	0.45	1.0	1.0	Not Detected U
1,2-Dichlorobenzene	95-50-1	0.72	0.98	1.2	Not Detected U
1,2-Dichloroethane	107-06-2	0.19	0.82	0.82	Not Detected U
1,2-Dichloropropane	78-87-5	0.26	0.94	0.94	Not Detected U
1,3,5-Trimethylbenzene	108-67-8	0.50	1.0	1.0	Not Detected U
1,3-Butadiene	106-99-0	0.12	0.45	0.45	Not Detected U
1,3-Dichlorobenzene	541-73-1	0.84	0.98	1.2	Not Detected U
1,4-Dichlorobenzene	106-46-7	0.88	0.98	1.2	Not Detected U
1,4-Dioxane	123-91-1	0.36	0.73	0.73	Not Detected U
2,2,4-Trimethylpentane	540-84-1	0.58	0.95	4.7	25
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.26	0.60	3.0	0.97 J
2-Hexanone	591-78-6	0.21	0.83	4.2	Not Detected U
2-Propanol	67-63-0	0.16	0.50	2.5	2.0 J
3-Chloropropene	107-05-1	0.55	0.64	3.2	Not Detected U
4-Ethyltoluene	622-96-8	0.41	1.0	1.0	Not Detected U
4-Methyl-2-pentanone	108-10-1	0.21	0.83	0.83	Not Detected U

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Ambient-1026		
Lab ID:	1301279-01A	Date/Time Analyzed:	1/23/13 05:58 PM
Date/Time Collecte	1/14/13 03:30 PM	Dilution Factor:	2.03
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	msda.i / a012308

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	67-64-1	0.30	0.48	2.4	4.2
alpha-Chlorotoluene	100-44-7	0.65	1.0	1.0	Not Detected U
Bromodichloromethane	75-27-4	0.27	1.4	1.4	Not Detected U
Bromoform	75-25-2	0.41	2.1	2.1	Not Detected U
Bromomethane	74-83-9	0.30	0.63	3.9	Not Detected U
Carbon Disulfide	75-15-0	0.15	0.63	3.2	Not Detected U
Carbon Tetrachloride	56-23-5	0.45	1.3	1.3	0.57 J
Chlorobenzene	108-90-7	0.17	0.93	0.93	Not Detected U
Chloroethane	75-00-3	0.24	0.54	2.7	Not Detected U
Chloroform	67-66-3	0.25	0.99	0.99	Not Detected U
Chloromethane	74-87-3	0.16	0.34	0.42	0.97
cis-1,2-Dichloroethene	156-59-2	0.47	0.80	0.80	Not Detected U
cis-1,3-Dichloropropene	10061-01-5	0.30	0.92	0.92	Not Detected U
Cumene	98-82-8	0.24	1.0	1.0	Not Detected U
Dibromochloromethane	124-48-1	0.49	1.7	1.7	Not Detected U
Ethanol	64-17-5	0.31	0.38	1.9	1.5 J
Ethyl Benzene	100-41-4	0.38	0.88	0.88	0.88
Freon 11	75-69-4	0.12	1.1	1.1	1.3
Freon 113	76-13-1	0.50	1.6	1.6	Not Detected U
Freon 114	76-14-2	0.21	1.4	1.4	Not Detected U
Freon 12	75-71-8	0.30	1.0	1.0	2.6
Heptane	142-82-5	0.38	0.83	0.83	16

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Ambient-1026		
Lab ID:	1301279-01A	Date/Time Analyzed:	1/23/13 05:58 PM
Date/Time Collecte	1/14/13 03:30 PM	Dilution Factor:	2.03
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	ms9a1 / a012308

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexachlorobutadiene	87-68-3	0.90	2.2	11	Not Detected U
Hexane	110-54-3	0.15	0.72	0.72	18
m,p-Xylene	108-38-3	0.26	0.88	0.88	2.5
Methyl tert-butyl ether	1634-04-4	0.18	0.73	0.73	Not Detected U
Methylene Chloride	75-09-2	0.22	0.70	1.4	1.6
o-Xylene	95-47-6	0.21	0.88	0.88	0.77 J
Propylbenzene	103-65-1	0.53	1.0	1.0	Not Detected U
Styrene	100-42-5	0.35	0.86	0.86	Not Detected U
Tetrachloroethene	127-18-4	0.24	1.4	1.4	Not Detected U
Tetrahydrofuran	109-99-9	0.19	0.60	3.0	Not Detected U
Toluene	108-88-3	0.16	0.76	0.76	15
trans-1,2-Dichloroethene	156-60-5	0.40	0.80	0.80	Not Detected U
trans-1,3-Dichloropropene	10061-02-6	0.54	0.92	0.92	Not Detected U
Trichloroethene	79-01-6	0.17	1.1	1.1	Not Detected U
Vinyl Chloride	75-01-4	0.089	0.52	0.52	Not Detected U

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.
J = Estimated value.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	71-137	92

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Ambient-1026		
Lab ID:	1301279-01A	Date/Time Analyzed:	1/23/13 05:58 PM
Date/Time Collecte	1/14/13 03:30 PM	Dilution Factor:	2.03
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	media.i / a012308

Surrogates	CAS#	Limits	%Recovery
4-Bromofluorobenzene	460-00-4	79-119	95
Toluene-d8	2037-26-5	83-114	98

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Ambient-1026		
Lab ID:	1301279-01B	Date/Time Analyzed:	1/23/13 05:58 PM
Date/Time Collecte	1/14/13 03:30 PM	Dilution Factor:	2.03
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	msda.i / a012308sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dibromoethane (EDB)	106-93-4	0.034	NA	0.31	0.064 J
Benzene	71-43-2	0.0081	0.032	0.32	7.8

J = Estimated value.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	80-133	103
4-Bromofluorobenzene	460-00-4	84-115	93
Toluene-d8	2037-26-5	90-108	99

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Ambient-1032		
Lab ID:	1301279-02A	Date/Time Analyzed:	1/23/13 07:11 PM
Date/Time Collecte	1/14/13 03:40 PM	Dilution Factor:	1.93
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	ms5a / / a012309

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.36	1.0	1.0	Not Detected U
1,1,2,2-Tetrachloroethane	79-34-5	0.33	1.3	1.3	Not Detected U
1,1,2-Trichloroethane	79-00-5	0.41	1.0	1.0	Not Detected U
1,1-Dichloroethane	75-34-3	0.20	0.78	0.78	Not Detected U
1,1-Dichloroethene	75-35-4	0.33	0.76	0.76	Not Detected U
1,2,4-Trichlorobenzene	120-82-1	1.1	1.4	7.2	Not Detected U
1,2,4-Trimethylbenzene	95-63-6	0.43	0.95	0.95	Not Detected U
1,2-Dichlorobenzene	95-50-1	0.68	0.93	1.2	Not Detected U
1,2-Dichloroethane	107-06-2	0.18	0.78	0.78	Not Detected U
1,2-Dichloropropane	78-87-5	0.25	0.89	0.89	Not Detected U
1,3,5-Trimethylbenzene	108-67-8	0.48	0.95	0.95	Not Detected U
1,3-Butadiene	106-99-0	0.11	0.43	0.43	Not Detected U
1,3-Dichlorobenzene	541-73-1	0.80	0.93	1.2	Not Detected U
1,4-Dichlorobenzene	106-46-7	0.84	0.93	1.2	Not Detected U
1,4-Dioxane	123-91-1	0.34	0.70	0.70	Not Detected U
2,2,4-Trimethylpentane	540-84-1	0.56	0.90	4.5	1.2 J
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.25	0.57	2.8	1.1 J
2-Hexanone	591-78-6	0.20	0.79	4.0	Not Detected U
2-Propanol	67-63-0	0.16	0.47	2.4	0.82 J
3-Chloropropene	107-05-1	0.52	0.60	3.0	Not Detected U
4-Ethyltoluene	622-96-8	0.39	0.95	0.95	Not Detected U
4-Methyl-2-pentanone	108-10-1	0.20	0.79	0.79	Not Detected U

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Ambient-1032		
Lab ID:	1301279-02A	Date/Time Analyzed:	1/23/13 07:11 PM
Date/Time Collecte	1/14/13 03:40 PM	Dilution Factor:	1.93
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	msda.i / a012309

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	67-64-1	0.29	0.46	2.3	3.8
alpha-Chlorotoluene	100-44-7	0.62	1.0	1.0	Not Detected U
Bromodichloromethane	75-27-4	0.26	1.3	1.3	Not Detected U
Bromoform	75-25-2	0.39	2.0	2.0	Not Detected U
Bromomethane	74-83-9	0.29	0.60	3.7	Not Detected U
Carbon Disulfide	75-15-0	0.14	0.60	3.0	0.15 J
Carbon Tetrachloride	56-23-5	0.43	1.2	1.2	0.54 J
Chlorobenzene	108-90-7	0.16	0.89	0.89	Not Detected U
Chloroethane	75-00-3	0.23	0.51	2.5	Not Detected U
Chloroform	67-66-3	0.23	0.94	0.94	Not Detected U
Chloromethane	74-87-3	0.16	0.32	0.40	1.1
cis-1,2-Dichloroethene	156-59-2	0.45	0.76	0.76	Not Detected U
cis-1,3-Dichloropropene	10061-01-5	0.29	0.88	0.88	Not Detected U
Cumene	98-82-8	0.22	0.95	0.95	Not Detected U
Dibromochloromethane	124-48-1	0.46	1.6	1.6	Not Detected U
Ethanol	64-17-5	0.30	0.36	1.8	1.3 J
Ethyl Benzene	100-41-4	0.36	0.84	0.84	Not Detected U
Freon 11	75-69-4	0.11	1.1	1.1	1.4
Freon 113	76-13-1	0.48	1.5	1.5	0.83 J
Freon 114	76-14-2	0.20	1.3	1.3	Not Detected U
Freon 12	75-71-8	0.28	0.95	0.95	2.6
Heptane	142-82-5	0.37	0.79	0.79	1.4

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Ambient-1032		
Lab ID:	1301279-02A	Date/Time Analyzed:	1/23/13 07:11 PM
Date/Time Collecte	1/14/13 03:40 PM	Dilution Factor:	1.93
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	ms9.i / 0012309

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexachlorobutadiene	87-68-3	0.86	2.0	10	Not Detected U
Hexane	110-54-3	0.15	0.68	0.68	2.5
m,p-Xylene	108-38-3	0.25	0.84	0.84	0.42 J
Methyl tert-butyl ether	1634-04-4	0.17	0.70	0.70	Not Detected U
Methylene Chloride	75-09-2	0.21	0.67	1.3	1.8
o-Xylene	95-47-6	0.20	0.84	0.84	Not Detected U
Propylbenzene	103-65-1	0.50	0.95	0.95	Not Detected U
Styrene	100-42-5	0.33	0.82	0.82	Not Detected U
Tetrachloroethene	127-18-4	0.23	1.3	1.3	Not Detected U
Tetrahydrofuran	109-99-9	0.18	0.57	2.8	Not Detected U
Toluene	108-88-3	0.15	0.73	0.73	1.6
trans-1,2-Dichloroethene	156-60-5	0.38	0.76	0.76	Not Detected U
trans-1,3-Dichloropropene	10061-02-6	0.52	0.88	0.88	Not Detected U
Trichloroethene	79-01-6	0.16	1.0	1.0	Not Detected U
Vinyl Chloride	75-01-4	0.084	0.49	0.49	Not Detected U

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.
J = Estimated value.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	71-137	93

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Ambient-1032		
Lab ID:	1301279-02A	Date/Time Analyzed:	1/23/13 07:11 PM
Date/Time Collecte	1/14/13 03:40 PM	Dilution Factor:	1.93
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	ms5a.i / a012309

Surrogates	CAS#	Limits	%Recovery
4-Bromofluorobenzene	460-00-4	79-119	90
Toluene-d8	2037-26-5	83-114	97

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Ambient-1032		
Lab ID:	1301279-02B	Date/Time Analyzed:	1/23/13 07:11 PM
Date/Time Collected:	1/14/13 03:40 PM	Dilution Factor:	1.93
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	msda / a012309sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dibromoethane (EDB)	106-93-4	0.032	NA	0.30	0.035 J
Benzene	71-43-2	0.0077	0.031	0.31	1.1

J = Estimated value.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	80-133	101
4-Bromofluorobenzene	460-00-4	84-115	96
Toluene-d8	2037-26-5	90-108	99

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Ambient-1033		
Lab ID:	1301279-03A	Date/Time Analyzed:	1/23/13 08:05 PM
Date/Time Collecte	1/14/13 03:45 PM	Dilution Factor:	1.99
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	msda / a012310

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.38	1.1	1.1	Not Detected U
1,1,2,2-Tetrachloroethane	79-34-5	0.34	1.4	1.4	Not Detected U
1,1,2-Trichloroethane	79-00-5	0.42	1.1	1.1	Not Detected U
1,1-Dichloroethane	75-34-3	0.21	0.80	0.80	Not Detected U
1,1-Dichloroethene	75-35-4	0.34	0.79	0.79	Not Detected U
1,2,4-Trichlorobenzene	120-82-1	1.2	1.5	7.4	Not Detected U
1,2,4-Trimethylbenzene	95-63-6	0.44	0.98	0.98	Not Detected U
1,2-Dichlorobenzene	95-50-1	0.70	0.96	1.2	Not Detected U
1,2-Dichloroethane	107-06-2	0.19	0.80	0.80	Not Detected U
1,2-Dichloropropane	78-87-5	0.26	0.92	0.92	Not Detected U
1,3,5-Trimethylbenzene	108-67-8	0.49	0.98	0.98	Not Detected U
1,3-Butadiene	106-99-0	0.11	0.44	0.44	Not Detected U
1,3-Dichlorobenzene	541-73-1	0.82	0.96	1.2	Not Detected U
1,4-Dichlorobenzene	106-46-7	0.86	0.96	1.2	Not Detected U
1,4-Dioxane	123-91-1	0.35	0.72	0.72	Not Detected U
2,2,4-Trimethylpentane	540-84-1	0.57	0.93	4.6	5.5
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.26	0.59	2.9	2.0 J
2-Hexanone	591-78-6	0.21	0.82	4.1	0.26 J
2-Propanol	67-63-0	0.16	0.49	2.4	6.9
3-Chloropropene	107-05-1	0.54	0.62	3.1	Not Detected U
4-Ethyltoluene	622-96-8	0.40	0.98	0.98	Not Detected U
4-Methyl-2-pentanone	108-10-1	0.21	0.82	0.82	Not Detected U

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Ambient-1033		
Lab ID:	1301279-03A	Date/Time Analyzed:	1/23/13 08:05 PM
Date/Time Collecte	1/14/13 03:45 PM	Dilution Factor:	1.99
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	msda.i / a012310

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	67-64-1	0.30	0.47	2.4	7.6
alpha-Chlorotoluene	100-44-7	0.64	1.0	1.0	Not Detected U
Bromodichloromethane	75-27-4	0.26	1.3	1.3	Not Detected U
Bromoform	75-25-2	0.40	2.0	2.0	Not Detected U
Bromomethane	74-83-9	0.30	0.62	3.9	Not Detected U
Carbon Disulfide	75-15-0	0.14	0.62	3.1	Not Detected U
Carbon Tetrachloride	56-23-5	0.44	1.2	1.2	0.90 J
Chlorobenzene	108-90-7	0.17	0.92	0.92	Not Detected U
Chloroethane	75-00-3	0.24	0.52	2.6	Not Detected U
Chloroform	67-66-3	0.24	0.97	0.97	Not Detected U
Chloromethane	74-87-3	0.16	0.33	0.41	0.85
cis-1,2-Dichloroethene	156-59-2	0.46	0.79	0.79	Not Detected U
cis-1,3-Dichloropropene	10061-01-5	0.29	0.90	0.90	Not Detected U
Cumene	98-82-8	0.23	0.98	0.98	Not Detected U
Dibromochloromethane	124-48-1	0.48	1.7	1.7	Not Detected U
Ethanol	64-17-5	0.31	0.37	1.9	3.3
Ethyl Benzene	100-41-4	0.37	0.86	0.86	0.47 J
Freon 11	75-69-4	0.11	1.1	1.1	1.2
Freon 113	76-13-1	0.49	1.5	1.5	0.61 J
Freon 114	76-14-2	0.20	1.4	1.4	Not Detected U
Freon 12	75-71-8	0.29	0.98	0.98	2.2
Heptane	142-82-5	0.38	0.82	0.82	4.9

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Ambient-1033		
Lab ID:	1301279-03A	Date/Time Analyzed:	1/23/13 08:05 PM
Date/Time Collecte	1/14/13 03:45 PM	Dilution Factor:	1.99
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	msda.i / a012310

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexachlorobutadiene	87-68-3	0.88	2.1	11	Not Detected U
Hexane	110-54-3	0.15	0.70	0.70	6.6
m,p-Xylene	108-38-3	0.26	0.86	0.86	1.0
Methyl tert-butyl ether	1634-04-4	0.18	0.72	0.72	Not Detected U
Methylene Chloride	75-09-2	0.22	0.69	1.4	1.9
o-Xylene	95-47-6	0.21	0.86	0.86	0.34 J
Propylbenzene	103-65-1	0.52	0.98	0.98	Not Detected U
Styrene	100-42-5	0.34	0.85	0.85	Not Detected U
Tetrachloroethene	127-18-4	0.23	1.3	1.3	Not Detected U
Tetrahydrofuran	109-99-9	0.19	0.59	2.9	Not Detected U
Toluene	108-88-3	0.16	0.75	0.75	5.7
trans-1,2-Dichloroethene	156-60-5	0.39	0.79	0.79	Not Detected U
trans-1,3-Dichloropropene	10061-02-6	0.53	0.90	0.90	Not Detected U
Trichloroethene	79-01-6	0.17	1.1	1.1	Not Detected U
Vinyl Chloride	75-01-4	0.087	0.51	0.51	Not Detected U

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.
J = Estimated value.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	71-137	92

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Ambient-1033		
Lab ID:	1301279-03A	Date/Time Analyzed:	1/23/13 08:05 PM
Date/Time Collecte	1/14/13 03:45 PM	Dilution Factor:	1.09
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	ms5a.i / a012310

Surrogates	CAS#	Limits	%Recovery
4-Bromofluorobenzene	460-00-4	79-119	95
Toluene-d8	2037-26-5	83-114	99

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Ambient-1033 Lab Duplicate		
Lab ID:	1301279-03AA	Date/Time Analyzed:	1/23/13 09:11 PM
Date/Time Collecte	1/14/13 03:45 PM	Dilution Factor:	1.99
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	msda / a012311

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.38	1.1	1.1	Not Detected U
1,1,2,2-Tetrachloroethane	79-34-5	0.34	1.4	1.4	Not Detected U
1,1,2-Trichloroethane	79-00-5	0.42	1.1	1.1	Not Detected U
1,1-Dichloroethane	75-34-3	0.21	0.80	0.80	Not Detected U
1,1-Dichloroethene	75-35-4	0.34	0.79	0.79	Not Detected U
1,2,4-Trichlorobenzene	120-82-1	1.2	1.5	7.4	Not Detected U
1,2,4-Trimethylbenzene	95-63-6	0.44	0.98	0.98	Not Detected U
1,2-Dichlorobenzene	95-50-1	0.70	0.96	1.2	Not Detected U
1,2-Dichloroethane	107-06-2	0.19	0.80	0.80	Not Detected U
1,2-Dichloropropane	78-87-5	0.26	0.92	0.92	Not Detected U
1,3,5-Trimethylbenzene	108-67-8	0.49	0.98	0.98	Not Detected U
1,3-Butadiene	106-99-0	0.11	0.44	0.44	0.24 J
1,3-Dichlorobenzene	541-73-1	0.82	0.96	1.2	Not Detected U
1,4-Dichlorobenzene	106-46-7	0.86	0.96	1.2	Not Detected U
1,4-Dioxane	123-91-1	0.35	0.72	0.72	Not Detected U
2,2,4-Trimethylpentane	540-84-1	0.57	0.93	4.6	7.5
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.26	0.59	2.9	1.7 J
2-Hexanone	591-78-6	0.21	0.82	4.1	0.28 J
2-Propanol	67-63-0	0.16	0.49	2.4	7.0
3-Chloropropene	107-05-1	0.54	0.62	3.1	Not Detected U
4-Ethyltoluene	622-96-8	0.40	0.98	0.98	Not Detected U
4-Methyl-2-pentanone	108-10-1	0.21	0.82	0.82	Not Detected U

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Ambient-1033 Lab Duplicate		
Lab ID:	1301279-03AA	Date/Time Analyzed:	1/23/13 09:11 PM
Date/Time Collecte	1/14/13 03:45 PM	Dilution Factor:	1.99
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	ms5a1 / a012311

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	67-64-1	0.30	0.47	2.4	7.3
alpha-Chlorotoluene	100-44-7	0.64	1.0	1.0	Not Detected U
Bromodichloromethane	75-27-4	0.26	1.3	1.3	Not Detected U
Bromoform	75-25-2	0.40	2.0	2.0	Not Detected U
Bromomethane	74-83-9	0.30	0.62	3.9	Not Detected U
Carbon Disulfide	75-15-0	0.14	0.62	3.1	0.17 J
Carbon Tetrachloride	56-23-5	0.44	1.2	1.2	0.63 J
Chlorobenzene	108-90-7	0.17	0.92	0.92	Not Detected U
Chloroethane	75-00-3	0.24	0.52	2.6	Not Detected U
Chloroform	67-66-3	0.24	0.97	0.97	Not Detected U
Chloromethane	74-87-3	0.16	0.33	0.41	0.98
cis-1,2-Dichloroethene	156-59-2	0.46	0.79	0.79	Not Detected U
cis-1,3-Dichloropropene	10061-01-5	0.29	0.90	0.90	Not Detected U
Cumene	98-82-8	0.23	0.98	0.98	Not Detected U
Dibromochloromethane	124-48-1	0.48	1.7	1.7	Not Detected U
Ethanol	64-17-5	0.31	0.37	1.9	3.5
Ethyl Benzene	100-41-4	0.37	0.86	0.86	0.56 J
Freon 11	75-69-4	0.11	1.1	1.1	1.5
Freon 113	76-13-1	0.49	1.5	1.5	0.63 J
Freon 114	76-14-2	0.20	1.4	1.4	Not Detected U
Freon 12	75-71-8	0.29	0.98	0.98	2.3
Heptane	142-82-5	0.38	0.82	0.82	5.0

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Ambient-1033 Lab Duplicate		
Lab ID:	1301279-03AA	Date/Time Analyzed:	1/23/13 09:11 PM
Date/Time Collected:	1/14/13 03:45 PM	Dilution Factor:	1.99
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	ms5a / / a012311

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexachlorobutadiene	87-68-3	0.88	2.1	11	Not Detected U
Hexane	110-54-3	0.15	0.70	0.70	6.8
m,p-Xylene	108-38-3	0.26	0.86	0.86	1.2
Methyl tert-butyl ether	1634-04-4	0.18	0.72	0.72	Not Detected U
Methylene Chloride	75-09-2	0.22	0.69	1.4	1.8
o-Xylene	95-47-6	0.21	0.86	0.86	0.30 J
Propylbenzene	103-65-1	0.52	0.98	0.98	Not Detected U
Styrene	100-42-5	0.34	0.85	0.85	Not Detected U
Tetrachloroethene	127-18-4	0.23	1.3	1.3	Not Detected U
Tetrahydrofuran	109-99-9	0.19	0.59	2.9	Not Detected U
Toluene	108-88-3	0.16	0.75	0.75	5.8
trans-1,2-Dichloroethene	156-60-5	0.39	0.79	0.79	Not Detected U
trans-1,3-Dichloropropene	10061-02-6	0.53	0.90	0.90	Not Detected U
Trichloroethene	79-01-6	0.17	1.1	1.1	Not Detected U
Vinyl Chloride	75-01-4	0.087	0.51	0.51	Not Detected U

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.
J = Estimated value.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	71-137	91

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Ambient-1033 Lab Duplicate		
Lab ID:	1301279-03AA	Date/Time Analyzed:	1/23/13 09:11 PM
Date/Time Collecte	1/14/13 03:45 PM	Dilution Factor:	1.99
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	ms5a / a012311

Surrogates	CAS#	Limits	%Recovery
4-Bromofluorobenzene	460-00-4	79-119	93
Toluene-d8	2037-26-5	83-114	98

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Ambient-1033		
Lab ID:	1301279-03B	Date/Time Analyzed:	1/23/13 08:05 PM
Date/Time Collecte	1/14/13 03:45 PM	Dilution Factor:	1.99
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	msda.i / a012310sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dibromoethane (EDB)	106-93-4	0.033	NA	0.30	Not Detected U
Benzene	71-43-2	0.0079	0.032	0.32	3.0

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	80-133	100
4-Bromofluorobenzene	460-00-4	84-115	97
Toluene-d8	2037-26-5	90-108	99

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Ambient-1033 Lab Duplicate		
Lab ID:	1301279-03BB	Date/Time Analyzed:	1/23/13 09:11 PM
Date/Time Collecte	1/14/13 03:45 PM	Dilution Factor:	1.99
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	ms5a.i / a012311sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dibromoethane (EDB)	106-93-4	0.033	NA	0.30	Not Detected U
Benzene	71-43-2	0.0079	0.032	0.32	3.1

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	80-133	98
4-Bromofluorobenzene	460-00-4	84-115	90
Toluene-d8	2037-26-5	90-108	98

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Indoor-1026		
Lab ID:	1301279-04A	Date/Time Analyzed:	1/23/13 10:21 PM
Date/Time Collecte	1/14/13 04:10 PM	Dilution Factor:	2.01
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	msda1 / a012312

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.38	1.1	1.1	Not Detected U
1,1,2,2-Tetrachloroethane	79-34-5	0.34	1.4	1.4	Not Detected U
1,1,2-Trichloroethane	79-00-5	0.43	1.1	1.1	Not Detected U
1,1-Dichloroethane	75-34-3	0.21	0.81	0.81	Not Detected U
1,1-Dichloroethene	75-35-4	0.35	0.80	0.80	Not Detected U
1,2,4-Trichlorobenzene	120-82-1	1.2	1.5	7.4	Not Detected U
1,2,4-Trimethylbenzene	95-63-6	0.44	0.99	0.99	Not Detected U
1,2-Dichlorobenzene	95-50-1	0.71	0.97	1.2	Not Detected U
1,2-Dichloroethane	107-06-2	0.19	0.81	0.81	Not Detected U
1,2-Dichloropropane	78-87-5	0.26	0.93	0.93	Not Detected U
1,3,5-Trimethylbenzene	108-67-8	0.50	0.99	0.99	Not Detected U
1,3-Butadiene	106-99-0	0.11	0.44	0.44	0.30 J
1,3-Dichlorobenzene	541-73-1	0.83	0.97	1.2	Not Detected U
1,4-Dichlorobenzene	106-46-7	0.87	0.97	1.2	Not Detected U
1,4-Dioxane	123-91-1	0.35	0.72	0.72	Not Detected U
2,2,4-Trimethylpentane	540-84-1	0.58	0.94	4.7	9.3
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.26	0.59	3.0	1.2 J
2-Hexanone	591-78-6	0.21	0.82	4.1	Not Detected U
2-Propanol	67-63-0	0.16	0.49	2.5	1.7 J
3-Chloropropene	107-05-1	0.54	0.63	3.1	Not Detected U
4-Ethyltoluene	622-96-8	0.41	0.99	0.99	Not Detected U
4-Methyl-2-pentanone	108-10-1	0.21	0.82	0.82	Not Detected U

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Indoor-1026		
Lab ID:	1301279-04A	Date/Time Analyzed:	1/23/13 10:21 PM
Date/Time Collecte	1/14/13 04:10 PM	Dilution Factor:	2.01
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	msda.i / a012312

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	67-64-1	0.30	0.48	2.4	5.5
alpha-Chlorotoluene	100-44-7	0.65	1.0	1.0	Not Detected U
Bromodichloromethane	75-27-4	0.27	1.3	1.3	Not Detected U
Bromoform	75-25-2	0.40	2.1	2.1	Not Detected U
Bromomethane	74-83-9	0.30	0.62	3.9	Not Detected U
Carbon Disulfide	75-15-0	0.14	0.62	3.1	0.16 J
Carbon Tetrachloride	56-23-5	0.45	1.3	1.3	Not Detected U
Chlorobenzene	108-90-7	0.17	0.92	0.92	Not Detected U
Chloroethane	75-00-3	0.24	0.53	2.6	Not Detected U
Chloroform	67-66-3	0.24	0.98	0.98	Not Detected U
Chloromethane	74-87-3	0.16	0.33	0.42	0.98
cis-1,2-Dichloroethene	156-59-2	0.47	0.80	0.80	Not Detected U
cis-1,3-Dichloropropene	10061-01-5	0.30	0.91	0.91	Not Detected U
Cumene	98-82-8	0.23	0.99	0.99	Not Detected U
Dibromochloromethane	124-48-1	0.48	1.7	1.7	Not Detected U
Ethanol	64-17-5	0.31	0.38	1.9	1.9
Ethyl Benzene	100-41-4	0.38	0.87	0.87	0.58 J
Freon 11	75-69-4	0.11	1.1	1.1	1.4
Freon 113	76-13-1	0.50	1.5	1.5	0.63 J
Freon 114	76-14-2	0.20	1.4	1.4	Not Detected U
Freon 12	75-71-8	0.30	0.99	0.99	2.6
Heptane	142-82-5	0.38	0.82	0.82	8.5

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Indoor-1026		
Lab ID:	1301279-04A	Date/Time Analyzed:	1/23/13 10:21 PM
Date/Time Collecte	1/14/13 04:10 PM	Dilution Factor:	2.01
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	ms5a / / a012312

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexachlorobutadiene	87-68-3	0.89	2.1	11	Not Detected U
Hexane	110-54-3	0.15	0.71	0.71	11
m,p-Xylene	108-38-3	0.26	0.87	0.87	1.3
Methyl tert-butyl ether	1634-04-4	0.18	0.72	0.72	Not Detected U
Methylene Chloride	75-09-2	0.22	0.70	1.4	1.6
o-Xylene	95-47-6	0.21	0.87	0.87	0.47 J
Propylbenzene	103-65-1	0.52	0.99	0.99	Not Detected U
Styrene	100-42-5	0.35	0.86	0.86	Not Detected U
Tetrachloroethene	127-18-4	0.24	1.4	1.4	Not Detected U
Tetrahydrofuran	109-99-9	0.19	0.59	3.0	Not Detected U
Toluene	108-88-3	0.16	0.76	0.76	8.4
trans-1,2-Dichloroethene	156-60-5	0.40	0.80	0.80	Not Detected U
trans-1,3-Dichloropropene	10061-02-6	0.54	0.91	0.91	Not Detected U
Trichloroethene	79-01-6	0.17	1.1	1.1	Not Detected U
Vinyl Chloride	75-01-4	0.088	0.51	0.51	Not Detected U

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.
J = Estimated value.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	71-137	95

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Indoor-1026		
Lab ID:	1301279-04A	Date/Time Analyzed:	1/23/13 10:21 PM
Date/Time Collecte	1/14/13 04:10 PM	Dilution Factor:	2.01
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	ms5a.i / a012312

Surrogates	CAS#	Limits	%Recovery
4-Bromofluorobenzene	460-00-4	79-119	94
Toluene-d8	2037-26-5	83-114	99

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Indoor-1026		
Lab ID:	1301279-04B	Date/Time Analyzed:	1/23/13 10:21 PM
Date/Time Collecte	1/14/13 04:10 PM	Dilution Factor:	2.01
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	msda.i / a012312sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dibromoethane (EDB)	106-93-4	0.033	NA	0.31	0.038 J
Benzene	71-43-2	0.0080	0.032	0.32	4.8

J = Estimated value.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	80-133	101
4-Bromofluorobenzene	460-00-4	84-115	96
Toluene-d8	2037-26-5	90-108	99

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Indoor-1032-1		
Lab ID:	1301279-05A	Date/Time Analyzed:	1/24/13 06:45 AM
Date/Time Collecte	1/14/13 04:15 PM	Dilution Factor:	2.21
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	msda:// a012313

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.42	1.2	1.2	Not Detected U
1,1,2,2-Tetrachloroethane	79-34-5	0.37	1.5	1.5	Not Detected U
1,1,2-Trichloroethane	79-00-5	0.47	1.2	1.2	Not Detected U
1,1-Dichloroethane	75-34-3	0.23	0.89	0.89	Not Detected U
1,1-Dichloroethene	75-35-4	0.38	0.88	0.88	Not Detected U
1,2,4-Trichlorobenzene	120-82-1	1.3	1.6	8.2	Not Detected U
1,2,4-Trimethylbenzene	95-63-6	0.49	1.1	1.1	0.88 J
1,2-Dichlorobenzene	95-50-1	0.78	1.1	1.3	Not Detected U
1,2-Dichloroethane	107-06-2	0.21	0.89	0.89	Not Detected U
1,2-Dichloropropane	78-87-5	0.28	1.0	1.0	Not Detected U
1,3,5-Trimethylbenzene	108-67-8	0.54	1.1	1.1	Not Detected U
1,3-Butadiene	106-99-0	0.12	0.49	0.49	Not Detected U
1,3-Dichlorobenzene	541-73-1	0.91	1.1	1.3	Not Detected U
1,4-Dichlorobenzene	106-46-7	0.96	1.1	1.3	Not Detected U
1,4-Dioxane	123-91-1	0.39	0.80	0.80	Not Detected U
2,2,4-Trimethylpentane	540-84-1	0.64	1.0	5.2	1.1 J
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.28	0.65	3.2	1.5 J
2-Hexanone	591-78-6	0.23	0.90	4.5	Not Detected U
2-Propanol	67-63-0	0.18	0.54	2.7	7.4
3-Chloropropene	107-05-1	0.60	0.69	3.4	Not Detected U
4-Ethyltoluene	622-96-8	0.45	1.1	1.1	0.48 J
4-Methyl-2-pentanone	108-10-1	0.23	0.90	0.90	Not Detected U

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Indoor-1032-1		
Lab ID:	1301279-05A	Date/Time Analyzed:	1/24/13 06:45 AM
Date/Time Collecte	1/14/13 04:15 PM	Dilution Factor:	2.21
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	msda.i / a012313

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	67-64-1	0.33	0.52	2.6	15
alpha-Chlorotoluene	100-44-7	0.71	1.1	1.1	Not Detected U
Bromodichloromethane	75-27-4	0.29	1.5	1.5	Not Detected U
Bromoform	75-25-2	0.44	2.3	2.3	Not Detected U
Bromomethane	74-83-9	0.33	0.69	4.3	Not Detected U
Carbon Disulfide	75-15-0	0.16	0.69	3.4	0.27 J
Carbon Tetrachloride	56-23-5	0.49	1.4	1.4	Not Detected U
Chlorobenzene	108-90-7	0.18	1.0	1.0	Not Detected U
Chloroethane	75-00-3	0.27	0.58	2.9	Not Detected U
Chloroform	67-66-3	0.27	1.1	1.1	Not Detected U
Chloromethane	74-87-3	0.18	0.36	0.46	1.3
cis-1,2-Dichloroethene	156-59-2	0.52	0.88	0.88	Not Detected U
cis-1,3-Dichloropropene	10061-01-5	0.33	1.0	1.0	Not Detected U
Cumene	98-82-8	0.26	1.1	1.1	Not Detected U
Dibromochloromethane	124-48-1	0.53	1.9	1.9	Not Detected U
Ethanol	64-17-5	0.34	0.42	2.1	280 J
Ethyl Benzene	100-41-4	0.42	0.96	0.96	0.76 J
Freon 11	75-69-4	0.13	1.2	1.2	1.3
Freon 113	76-13-1	0.55	1.7	1.7	Not Detected U
Freon 114	76-14-2	0.22	1.5	1.5	Not Detected U
Freon 12	75-71-8	0.32	1.1	1.1	2.4
Heptane	142-82-5	0.42	0.90	0.90	1.3

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Indoor-1032-1		
Lab ID:	130127 9-05A	Date/Time Analyzed:	1/24/13 06:45 AM
Date/Time Collecte	1/14/13 04:15 PM	Dilution Factor:	2.21
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	ms5a.i / a012313

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexachlorobutadiene	87-68-3	0.98	2.4	12	Not Detected U
Hexane	110-54-3	0.17	0.78	0.78	2.1
m,p-Xylene	108-38-3	0.29	0.96	0.96	2.2
Methyl tert-butyl ether	1634-04-4	0.20	0.80	0.80	Not Detected U
Methylene Chloride	75-09-2	0.24	0.77	1.5	1.1 J
o-Xylene	95-47-6	0.23	0.96	0.96	0.68 J
Propylbenzene	103-65-1	0.58	1.1	1.1	Not Detected U
Styrene	100-42-5	0.38	0.94	0.94	Not Detected U
Tetrachloroethene	127-18-4	0.26	1.5	1.5	Not Detected U
Tetrahydrofuran	109-99-9	0.21	0.65	3.2	Not Detected U
Toluene	108-88-3	0.18	0.83	0.83	3.1
trans-1,2-Dichloroethene	156-60-5	0.44	0.88	0.88	Not Detected U
trans-1,3-Dichloropropene	10061-02-6	0.59	1.0	1.0	Not Detected U
Trichloroethene	79-01-6	0.19	1.2	1.2	Not Detected U
Vinyl Chloride	75-01-4	0.097	0.56	0.56	Not Detected U

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.
J = Estimated value.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	71-137	91

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Indoor-1032-1		
Lab ID:	1301279-05A	Date/Time Analyzed:	1/24/13 08:45 AM
Date/Time Collecte	1/14/13 04:15 PM	Dilution Factor:	2.21
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	msda.i / a012313

Surrogates	CAS#	Limits	%Recovery
4-Bromofluorobenzene	460-00-4	79-119	100
Toluene-d8	2037-26-5	83-114	97

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-indoor-1032-1		
Lab ID:	1301279-05B	Date/Time Analyzed:	1/24/13 06:45 AM
Date/Time Collecte	1/14/13 04:15 PM	Dilution Factor:	2.21
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	msda.i / a012313sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dibromoethane (EDB)	106-93-4	0.036	NA	0.34	Not Detected U
Benzene	71-43-2	0.0088	0.035	0.35	1.2

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	80-133	96
4-Bromofluorobenzene	460-00-4	84-115	99
Toluene-d8	2037-26-5	90-108	99

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Indoor-1032-2		
Lab ID:	1301279-06A	Date/Time Analyzed:	1/24/13 08:02 AM
Date/Time Collecte	1/14/13 04:20 PM	Dilution Factor:	2.18
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	ms5a.i / a012314

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.41	1.2	1.2	Not Detected U
1,1,2,2-Tetrachloroethane	79-34-5	0.37	1.5	1.5	Not Detected U
1,1,2-Trichloroethane	79-00-5	0.46	1.2	1.2	Not Detected U
1,1-Dichloroethane	75-34-3	0.23	0.88	0.88	Not Detected U
1,1-Dichloroethene	75-35-4	0.38	0.86	0.86	Not Detected U
1,2,4-Trichlorobenzene	120-82-1	1.3	1.6	8.1	Not Detected U
1,2,4-Trimethylbenzene	95-63-6	0.48	1.1	1.1	0.89 J
1,2-Dichlorobenzene	95-50-1	0.77	1.0	1.3	Not Detected U
1,2-Dichloroethane	107-06-2	0.20	0.88	0.88	Not Detected U
1,2-Dichloropropane	78-87-5	0.28	1.0	1.0	Not Detected U
1,3,5-Trimethylbenzene	108-67-8	0.54	1.1	1.1	Not Detected U
1,3-Butadiene	106-99-0	0.12	0.48	0.48	0.28 J
1,3-Dichlorobenzene	541-73-1	0.90	1.0	1.3	Not Detected U
1,4-Dichlorobenzene	106-46-7	0.94	1.0	1.3	Not Detected U
1,4-Dioxane	123-91-1	0.38	0.78	0.78	Not Detected U
2,2,4-Trimethylpentane	540-84-1	0.63	1.0	5.1	1.1 J
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.28	0.64	3.2	1.7 J
2-Hexanone	591-78-6	0.23	0.89	4.5	Not Detected U
2-Propanol	67-63-0	0.18	0.54	2.7	33
3-Chloropropene	107-05-1	0.59	0.68	3.4	Not Detected U
4-Ethyltoluene	622-96-8	0.44	1.1	1.1	1.0 J
4-Methyl-2-pentanone	108-10-1	0.23	0.89	0.89	Not Detected U

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-indoor-1032-2		
Lab ID:	1301279-06A	Date/Time Analyzed:	1/24/13 08:02 AM
Date/Time Collecte	1/14/13 04:20 PM	Dilution Factor:	2.18
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	msda.i / a012314

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	67-64-1	0.33	0.52	2.6	25
alpha-Chlorotoluene	100-44-7	0.70	1.1	1.1	Not Detected U
Bromodichloromethane	75-27-4	0.29	1.5	1.5	Not Detected U
Bromoform	75-25-2	0.44	2.2	2.2	Not Detected U
Bromomethane	74-83-9	0.33	0.68	4.2	Not Detected U
Carbon Disulfide	75-15-0	0.16	0.68	3.4	0.23 J
Carbon Tetrachloride	56-23-5	0.49	1.4	1.4	0.66 J
Chlorobenzene	108-90-7	0.18	1.0	1.0	Not Detected U
Chloroethane	75-00-3	0.26	0.58	2.9	Not Detected U
Chloroform	67-66-3	0.26	1.1	1.1	Not Detected U
Chloromethane	74-87-3	0.18	0.36	0.45	1.3
cis-1,2-Dichloroethene	156-59-2	0.51	0.86	0.86	Not Detected U
cis-1,3-Dichloropropene	10061-01-5	0.32	0.99	0.99	Not Detected U
Cumene	98-82-8	0.25	1.1	1.1	Not Detected U
Dibromochloromethane	124-48-1	0.53	1.8	1.8	Not Detected U
Ethanol	64-17-5	0.34	0.41	2.0	19
Ethyl Benzene	100-41-4	0.41	0.95	0.95	3.2
Freon 11	75-69-4	0.12	1.2	1.2	1.4
Freon 113	76-13-1	0.54	1.7	1.7	0.57 J
Freon 114	76-14-2	0.22	1.5	1.5	Not Detected U
Freon 12	75-71-8	0.32	1.1	1.1	2.5
Heptane	142-82-5	0.41	0.89	0.89	1.3

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Indoor-1032-2		
Lab ID:	1301279-06A	Date/Time Analyzed:	1/24/13 08:02 AM
Date/Time Collecte	1/14/13 04:20 PM	Dilution Factor:	2.18
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	msda / / a012314

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexachlorobutadiene	87-68-3	0.97	2.3	12	Not Detected U
Hexane	110-54-3	0.16	0.77	0.77	2.6
m,p-Xylene	108-38-3	0.28	0.95	0.95	12
Methyl tert-butyl ether	1634-04-4	0.19	0.78	0.78	Not Detected U
Methylene Chloride	75-09-2	0.24	0.76	1.5	2.4
o-Xylene	95-47-6	0.23	0.95	0.95	3.2
Propylbenzene	103-65-1	0.57	1.1	1.1	Not Detected U
Styrene	100-42-5	0.38	0.93	0.93	Not Detected U
Tetrachloroethene	127-18-4	0.26	1.5	1.5	Not Detected U
Tetrahydrofuran	109-99-9	0.21	0.64	3.2	Not Detected U
Toluene	108-88-3	0.17	0.82	0.82	13
trans-1,2-Dichloroethene	156-60-5	0.43	0.86	0.86	Not Detected U
trans-1,3-Dichloropropene	10061-02-6	0.58	0.99	0.99	Not Detected U
Trichloroethene	79-01-6	0.19	1.2	1.2	Not Detected U
Vinyl Chloride	75-01-4	0.095	0.56	0.56	Not Detected U

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.
J = Estimated value.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	71-137	95

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Indoor-1032-2		
Lab ID:	1301279-06A	Date/Time Analyzed:	1/24/13 08:02 AM
Date/Time Collecte	1/14/13 04:20 PM	Dilution Factor:	2.18
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	msda.i / a012314

Surrogates	CAS#	Limits	%Recovery
4-Bromofluorobenzene	460-00-4	79-119	99
Toluene-d8	2037-26-5	83-114	97

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Indoor-1032-2		
Lab ID:	1301279-06B	Date/Time Analyzed:	1/24/13 08:02 AM
Date/Time Collecte	1/14/13 04:20 PM	Dilution Factor:	2.18
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	msda.i / a012314sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dibromoethane (EDB)	106-93-4	0.036	NA	0.34	Not Detected U
Benzene	71-43-2	0.0087	0.035	0.35	1.5

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	80-133	104
4-Bromofluorobenzene	460-00-4	84-115	103
Toluene-d8	2037-26-5	90-108	100

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Indoor-1033		
Lab ID:	1301279-07A	Date/Time Analyzed:	1/24/13 08:51 AM
Date/Time Collecte	1/14/13 04:23 PM	Dilution Factor:	2.18
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	msda / a012315

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.41	1.2	1.2	Not Detected U
1,1,2,2-Tetrachloroethane	79-34-5	0.37	1.5	1.5	Not Detected U
1,1,2-Trichloroethane	79-00-5	0.46	1.2	1.2	Not Detected U
1,1-Dichloroethane	75-34-3	0.23	0.88	0.88	Not Detected U
1,1-Dichloroethene	75-35-4	0.38	0.86	0.86	Not Detected U
1,2,4-Trichlorobenzene	120-82-1	1.3	1.6	8.1	Not Detected U
1,2,4-Trimethylbenzene	95-63-6	0.48	1.1	1.1	Not Detected U
1,2-Dichlorobenzene	95-50-1	0.77	1.0	1.3	Not Detected U
1,2-Dichloroethane	107-06-2	0.20	0.88	0.88	Not Detected U
1,2-Dichloropropane	78-87-5	0.28	1.0	1.0	Not Detected U
1,3,5-Trimethylbenzene	108-67-8	0.54	1.1	1.1	Not Detected U
1,3-Butadiene	106-99-0	0.12	0.48	0.48	0.54
1,3-Dichlorobenzene	541-73-1	0.90	1.0	1.3	Not Detected U
1,4-Dichlorobenzene	106-46-7	0.94	1.0	1.3	Not Detected U
1,4-Dioxane	123-91-1	0.38	0.78	0.78	Not Detected U
2,2,4-Trimethylpentane	540-84-1	0.63	1.0	5.1	3.7 J
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.28	0.64	3.2	2.2 J
2-Hexanone	591-78-6	0.23	0.89	4.5	Not Detected U
2-Propanol	67-63-0	0.18	0.54	2.7	7.5
3-Chloropropene	107-05-1	0.59	0.68	3.4	Not Detected U
4-Ethyltoluene	622-96-8	0.44	1.1	1.1	Not Detected U
4-Methyl-2-pentanone	108-10-1	0.23	0.89	0.89	Not Detected U

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Indoor-1033		
Lab ID:	1301279-07A	Date/Time Analyzed:	1/24/13 08:51 AM
Date/Time Collecte	1/14/13 04:23 PM	Dilution Factor:	2.18
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	msda.i / a012315

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	67-64-1	0.33	0.52	2.6	6.9
alpha-Chlorotoluene	100-44-7	0.70	1.1	1.1	Not Detected U
Bromodichloromethane	75-27-4	0.29	1.5	1.5	Not Detected U
Bromoform	75-25-2	0.44	2.2	2.2	Not Detected U
Bromomethane	74-83-9	0.33	0.68	4.2	Not Detected U
Carbon Disulfide	75-15-0	0.16	0.68	3.4	0.21 J
Carbon Tetrachloride	56-23-5	0.49	1.4	1.4	Not Detected U
Chlorobenzene	108-90-7	0.18	1.0	1.0	Not Detected U
Chloroethane	75-00-3	0.26	0.58	2.9	Not Detected U
Chloroform	67-66-3	0.26	1.1	1.1	Not Detected U
Chloromethane	74-87-3	0.18	0.36	0.45	1.3
cis-1,2-Dichloroethene	156-59-2	0.51	0.86	0.86	Not Detected U
cis-1,3-Dichloropropene	10061-01-5	0.32	0.99	0.99	Not Detected U
Cumene	98-82-8	0.25	1.1	1.1	Not Detected U
Dibromochloromethane	124-48-1	0.53	1.8	1.8	Not Detected U
Ethanol	64-17-5	0.34	0.41	2.0	3.2
Ethyl Benzene	100-41-4	0.41	0.95	0.95	0.41 J
Freon 11	75-69-4	0.12	1.2	1.2	1.4
Freon 113	76-13-1	0.54	1.7	1.7	Not Detected U
Freon 114	76-14-2	0.22	1.5	1.5	Not Detected U
Freon 12	75-71-8	0.32	1.1	1.1	2.8
Heptane	142-82-5	0.41	0.89	0.89	3.7

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Indoor-1033		
Lab ID:	1301279-07A	Date/Time Analyzed:	1/24/13 08:51 AM
Date/Time Collecte	1/14/13 04:23 PM	Dilution Factor:	2.18
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	media / / a012315

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexachlorobutadiene	87-68-3	0.97	2.3	12	Not Detected U
Hexane	110-54-3	0.16	0.77	0.77	5.3
m,p-Xylene	108-38-3	0.28	0.95	0.95	0.94 J
Methyl tert-butyl ether	1634-04-4	0.19	0.78	0.78	Not Detected U
Methylene Chloride	75-09-2	0.24	0.76	1.5	2.3
o-Xylene	95-47-6	0.23	0.95	0.95	0.31 J
Propylbenzene	103-65-1	0.57	1.1	1.1	Not Detected U
Styrene	100-42-5	0.38	0.93	0.93	0.61 J
Tetrachloroethene	127-18-4	0.26	1.5	1.5	Not Detected U
Tetrahydrofuran	109-99-9	0.21	0.64	3.2	0.43 J
Toluene	108-88-3	0.17	0.82	0.82	3.7
trans-1,2-Dichloroethene	156-60-5	0.43	0.86	0.86	Not Detected U
trans-1,3-Dichloropropene	10061-02-6	0.58	0.99	0.99	Not Detected U
Trichloroethene	79-01-6	0.19	1.2	1.2	Not Detected U
Vinyl Chloride	75-01-4	0.095	0.56	0.56	Not Detected U

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.
J = Estimated value.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	71-137	96

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Indoor-1033		
Lab ID:	1301279-07A	Date/Time Analyzed:	1/24/13 08:51 AM
Date/Time Collecte	1/14/13 04:23 PM	Dilution Factor:	2.18
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	msda.i / a012315

Surrogates	CAS#	Limits	%Recovery
4-Bromofluorobenzene	460-00-4	79-119	98
Toluene-d8	2037-26-5	83-114	96

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Indoor-1033		
Lab ID:	1301279-07B	Date/Time Analyzed:	1/24/13 08:51 AM
Date/Time Collected:	1/14/13 04:23 PM	Dilution Factor:	2.18
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	msda / / a012315sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dibromoethane (EDB)	106-93-4	0.036	NA	0.34	Not Detected U
Benzene	71-43-2	0.0087	0.035	0.35	2.6

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	80-133	103
4-Bromofluorobenzene	460-00-4	84-115	100
Toluene-d8	2037-26-5	90-108	100

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Air-Dup		
Lab ID:	1301279-08A	Date/Time Analyzed:	1/24/13 09:38 AM
Date/Time Collecte	1/14/13 04:00 PM	Dilution Factor:	2.16
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	msda / a012316

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.41	1.2	1.2	Not Detected U
1,1,2,2-Tetrachloroethane	79-34-5	0.36	1.5	1.5	Not Detected U
1,1,2-Trichloroethane	79-00-5	0.46	1.2	1.2	Not Detected U
1,1-Dichloroethane	75-34-3	0.23	0.87	0.87	Not Detected U
1,1-Dichloroethene	75-35-4	0.37	0.86	0.86	Not Detected U
1,2,4-Trichlorobenzene	120-82-1	1.3	1.6	8.0	Not Detected U
1,2,4-Trimethylbenzene	95-63-6	0.48	1.1	1.1	0.63 J
1,2-Dichlorobenzene	95-50-1	0.76	1.0	1.3	Not Detected U
1,2-Dichloroethane	107-06-2	0.20	0.87	0.87	Not Detected U
1,2-Dichloropropane	78-87-5	0.28	1.0	1.0	Not Detected U
1,3,5-Trimethylbenzene	108-67-8	0.53	1.1	1.1	Not Detected U
1,3-Butadiene	106-99-0	0.12	0.48	0.48	Not Detected U
1,3-Dichlorobenzene	541-73-1	0.89	1.0	1.3	Not Detected U
1,4-Dichlorobenzene	106-46-7	0.93	1.0	1.3	Not Detected U
1,4-Dioxane	123-91-1	0.38	0.78	0.78	Not Detected U
2,2,4-Trimethylpentane	540-84-1	0.62	1.0	5.0	0.91 J
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.28	0.64	3.2	1.3 J
2-Hexanone	591-78-6	0.23	0.88	4.4	Not Detected U
2-Propanol	67-63-0	0.17	0.53	2.6	27
3-Chloropropene	107-05-1	0.58	0.68	3.4	Not Detected U
4-Ethyltoluene	622-96-8	0.44	1.1	1.1	0.60 J
4-Methyl-2-pentanone	108-10-1	0.23	0.88	0.88	Not Detected U

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Air-Dup		
Lab ID:	1301279-08A	Date/Time Analyzed:	1/24/13 09:38 AM
Date/Time Collecte	1/14/13 04:00 PM	Dilution Factor:	2.16
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	msda // s012316

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	67-64-1	0.32	0.51	2.6	22
alpha-Chlorotoluene	100-44-7	0.69	1.1	1.1	Not Detected U
Bromodichloromethane	75-27-4	0.28	1.4	1.4	Not Detected U
Bromoform	75-25-2	0.43	2.2	2.2	Not Detected U
Bromomethane	74-83-9	0.32	0.67	4.2	Not Detected U
Carbon Disulfide	75-15-0	0.16	0.67	3.4	0.17 J
Carbon Tetrachloride	56-23-5	0.48	1.4	1.4	0.60 J
Chlorobenzene	108-90-7	0.18	0.99	0.99	Not Detected U
Chloroethane	75-00-3	0.26	0.57	2.8	Not Detected U
Chloroform	67-66-3	0.26	1.0	1.0	Not Detected U
Chloromethane	74-87-3	0.18	0.36	0.45	1.2
cis-1,2-Dichloroethene	156-59-2	0.50	0.86	0.86	Not Detected U
cis-1,3-Dichloropropene	10061-01-5	0.32	0.98	0.98	Not Detected U
Cumene	98-82-8	0.25	1.1	1.1	Not Detected U
Dibromochloromethane	124-48-1	0.52	1.8	1.8	Not Detected U
Ethanol	64-17-5	0.33	0.41	2.0	15
Ethyl Benzene	100-41-4	0.41	0.94	0.94	2.7
Freon 11	75-69-4	0.12	1.2	1.2	1.3
Freon 113	76-13-1	0.53	1.6	1.6	0.60 J
Freon 114	76-14-2	0.22	1.5	1.5	Not Detected U
Freon 12	75-71-8	0.32	1.1	1.1	2.1
Heptane	142-82-5	0.41	0.88	0.88	1.5

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Air-Dup		
Lab ID:	1301279-05A	Date/Time Analyzed:	1/24/13 09:38 AM
Date/Time Collecte	1/14/13 04:00 PM	Dilution Factor:	2.16
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	msda.i / a012316

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexachlorobutadiene	87-68-3	0.96	2.3	12	Not Detected U
Hexane	110-54-3	0.16	0.76	0.76	2.1
m,p-Xylene	108-38-3	0.28	0.94	0.94	9.5
Methyl tert-butyl ether	1634-04-4	0.19	0.78	0.78	Not Detected U
Methylene Chloride	75-09-2	0.24	0.75	1.5	1.6
o-Xylene	95-47-6	0.23	0.94	0.94	2.6
Propylbenzene	103-65-1	0.56	1.1	1.1	Not Detected U
Styrene	100-42-5	0.37	0.92	0.92	Not Detected U
Tetrachloroethene	127-18-4	0.25	1.5	1.5	Not Detected U
Tetrahydrofuran	109-99-9	0.21	0.64	3.2	Not Detected U
Toluene	108-88-3	0.17	0.81	0.81	12
trans-1,2-Dichloroethene	156-60-5	0.43	0.86	0.86	Not Detected U
trans-1,3-Dichloropropene	10061-02-6	0.58	0.98	0.98	Not Detected U
Trichloroethene	79-01-6	0.18	1.2	1.2	Not Detected U
Vinyl Chloride	75-01-4	0.094	0.55	0.55	Not Detected U

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.
J = Estimated value.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	71-137	90

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Air-Dup		
Lab ID:	1301279-08A	Date/Time Analyzed:	1/24/13 09:38 AM
Date/Time Collecte	1/14/13 04:00 PM	Dilution Factor:	2.16
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	media / a012316

Surrogates	CAS#	Limits	%Recovery
4-Bromofluorobenzene	460-00-4	79-119	97
Toluene-d8	2037-26-5	83-114	98

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	KAFB-Air-Dup		
Lab ID:	1301279-08B	Date/Time Analyzed:	1/24/13 09:38 AM
Date/Time Collecte	1/14/13 04:00 PM	Dilution Factor:	2.16
Media:	6 Liter Summa Canister (100% Certified)	Instrument/Filename:	msda.i / a012316sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dibromoethane (EDB)	106-93-4	0.036	NA	0.33	Not Detected U
Benzene	71-43-2	0.0086	0.034	0.34	1.2

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	80-133	100
4-Bromofluorobenzene	460-00-4	84-115	96
Toluene-d8	2037-26-5	90-108	99

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	Lab Blank		
Lab ID:	1301279-09A	Date/Time Analyzed:	1/23/13 02:20 PM
Date/Time Collecte	NA - Not Applicable	Dilution Factor:	1.00
Media:	NA - Not Applicable	Instrument/Filename:	msda.i / a012309a

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.19	0.54	0.54	Not Detected U
1,1,2,2-Tetrachloroethane	79-34-5	0.17	0.69	0.69	Not Detected U
1,1,2-Trichloroethane	79-00-5	0.21	0.54	0.54	Not Detected U
1,1-Dichloroethane	75-34-3	0.10	0.40	0.40	Not Detected U
1,1-Dichloroethene	75-35-4	0.17	0.40	0.40	Not Detected U
1,2,4-Trichlorobenzene	120-82-1	0.59	0.74	3.7	Not Detected U
1,2,4-Trimethylbenzene	95-63-6	0.22	0.49	0.49	Not Detected U
1,2-Dichlorobenzene	95-50-1	0.35	0.48	0.60	Not Detected U
1,2-Dichloroethane	107-06-2	0.094	0.40	0.40	Not Detected U
1,2-Dichloropropane	78-87-5	0.13	0.46	0.46	Not Detected U
1,3,5-Trimethylbenzene	108-67-8	0.25	0.49	0.49	Not Detected U
1,3-Butadiene	106-99-0	0.057	0.22	0.22	Not Detected U
1,3-Dichlorobenzene	541-73-1	0.41	0.48	0.60	Not Detected U
1,4-Dichlorobenzene	106-46-7	0.43	0.48	0.60	Not Detected U
1,4-Dioxane	123-91-1	0.18	0.36	0.36	Not Detected U
2,2,4-Trimethylpentane	540-84-1	0.29	0.47	2.3	Not Detected U
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.13	0.29	1.5	Not Detected U
2-Hexanone	591-78-6	0.10	0.41	2.0	Not Detected U
2-Propanol	67-63-0	0.080	0.24	1.2	Not Detected U
3-Chloropropene	107-05-1	0.27	0.31	1.6	Not Detected U
4-Ethyltoluene	622-96-8	0.20	0.49	0.49	Not Detected U
4-Methyl-2-pentanone	108-10-1	0.10	0.41	0.41	Not Detected U

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	Lab Blank		
Lab ID:	1301279-09A	Date/Time Analyzed:	1/23/13 02:20 PM
Date/Time Collecte	NA - Not Applicable	Dilution Factor:	1.00
Media:	NA - Not Applicable	Instrument/Filename:	msda.i / a012306a

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	67-64-1	0.15	0.24	1.2	0.43 J
alpha-Chlorotoluene	100-44-7	0.32	0.52	0.52	Not Detected U
Bromodichloromethane	75-27-4	0.13	0.67	0.67	Not Detected U
Bromoform	75-25-2	0.20	1.0	1.0	Not Detected U
Bromomethane	74-83-9	0.15	0.31	1.9	Not Detected U
Carbon Disulfide	75-15-0	0.072	0.31	1.6	0.082 J
Carbon Tetrachloride	56-23-5	0.22	0.63	0.63	Not Detected U
Chlorobenzene	108-90-7	0.084	0.46	0.46	Not Detected U
Chloroethane	75-00-3	0.12	0.26	1.3	Not Detected U
Chloroform	67-66-3	0.12	0.49	0.49	Not Detected U
Chloromethane	74-87-3	0.081	0.16	0.21	Not Detected U
cis-1,2-Dichloroethene	156-59-2	0.23	0.40	0.40	Not Detected U
cis-1,3-Dichloropropene	10061-01-5	0.15	0.45	0.45	Not Detected U
Cumene	98-82-8	0.12	0.49	0.49	Not Detected U
Dibromochloromethane	124-48-1	0.24	0.85	0.85	Not Detected U
Ethanol	64-17-5	0.15	0.19	0.94	0.20 J
Ethyl Benzene	100-41-4	0.19	0.43	0.43	Not Detected U
Freon 11	75-69-4	0.057	0.56	0.56	Not Detected U
Freon 113	76-13-1	0.25	0.77	0.77	Not Detected U
Freon 114	76-14-2	0.10	0.70	0.70	Not Detected U
Freon 12	75-71-8	0.15	0.49	0.49	Not Detected U
Heptane	142-82-5	0.19	0.41	0.41	Not Detected U

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	Lab Blank		
Lab ID:	1301279-09A	Date/Time Analyzed:	1/23/13 02:20 PM
Date/Time Collecte	NA - Not Applicable	Dilution Factor:	1.00
Media:	NA - Not Applicable	Instrument/Filename:	msda.i / a012306a

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexachlorobutadiene	87-68-3	0.44	1.1	5.3	Not Detected U
Hexane	110-54-3	0.076	0.35	0.35	Not Detected U
m,p-Xylene	108-38-3	0.13	0.43	0.43	Not Detected U
Methyl tert-butyl ether	1634-04-4	0.088	0.36	0.36	Not Detected U
Methylene Chloride	75-09-2	0.11	0.35	0.69	0.58 J
o-Xylene	95-47-6	0.10	0.43	0.43	Not Detected U
Propylbenzene	103-65-1	0.26	0.49	0.49	Not Detected U
Styrene	100-42-5	0.17	0.42	0.42	Not Detected U
Tetrachloroethene	127-18-4	0.12	0.68	0.68	Not Detected U
Tetrahydrofuran	109-99-9	0.096	0.29	1.5	Not Detected U
Toluene	108-88-3	0.079	0.38	0.38	Not Detected U
trans-1,2-Dichloroethene	156-60-5	0.20	0.40	0.40	Not Detected U
trans-1,3-Dichloropropene	10061-02-6	0.27	0.45	0.45	Not Detected U
Trichloroethene	79-01-6	0.086	0.54	0.54	Not Detected U
Vinyl Chloride	75-01-4	0.044	0.26	0.26	Not Detected U

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.
J = Estimated value.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	71-137	95

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	Lab Blank		
Lab ID:	1301279-09A	Date/Time Analyzed:	1/23/13 02:20 PM
Date/Time Collecte	NA - Not Applicable	Dilution Factor:	1.00
Media:	NA - Not Applicable	Instrument/Filename:	msda.i / a012309a

Surrogates	CAS#	Limits	%Recovery
4-Bromofluorobenzene	460-00-4	79-119	102
Toluene-d8	2037-26-5	83-114	95

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	Lab Blank		
Lab ID:	1301279-09B	Date/Time Analyzed:	1/23/13 02:20 PM
Date/Time Collecte	NA - Not Applicable	Dilution Factor:	1.00
Media:	NA - Not Applicable	Instrument/Filename:	msda / a012306sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dibromoethane (EDB)	106-93-4	0.016	NA	0.15	0.024 J
Benzene	71-43-2	0.0040	0.016	0.16	0.033 J

J = Estimated value.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	80-133	100
4-Bromofluorobenzene	460-00-4	84-115	99
Toluene-d8	2037-26-5	90-108	99

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	CCV		
Lab ID:	1301279-10A	Date/Time Analyzed:	1/23/13 10:17 AM
Date/Time Collecte	NA - Not Applicable	Dilution Factor:	1.00
Media:	NA - Not Applicable	Instrument/Filename:	msda.i / a012302a

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	83
1,1,2,2-Tetrachloroethane	79-34-5	95
1,1,2-Trichloroethane	79-00-5	101
1,1-Dichloroethane	75-34-3	90
1,1-Dichloroethene	75-35-4	95
1,2,4-Trichlorobenzene	120-82-1	85
1,2,4-Trimethylbenzene	95-63-6	93
1,2-Dichlorobenzene	95-50-1	84
1,2-Dichloroethane	107-06-2	96
1,2-Dichloropropane	78-87-5	97
1,3,5-Trimethylbenzene	108-67-8	96
1,3-Butadiene	106-99-0	94
1,3-Dichlorobenzene	541-73-1	90
1,4-Dichlorobenzene	106-46-7	88
1,4-Dioxane	123-91-1	97
2,2,4-Trimethylpentane	540-84-1	88
2-Butanone (Methyl Ethyl Ketone)	78-93-3	95
2-Hexanone	591-78-6	103
2-Propanol	67-63-0	99
3-Chloropropene	107-05-1	113
4-Ethyltoluene	622-96-8	96
4-Methyl-2-pentanone	108-10-1	103

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	CCV		
Lab ID:	1301279-10A	Date/Time Analyzed:	1/23/13 10:17 AM
Date/Time Collecte	NA - Not Applicable	Dilution Factor:	1.00
Media:	NA - Not Applicable	Instrument/Filename:	media / a012302a

Compound	CAS#	%Recovery
Acetone	67-64-1	88
alpha-Chlorotoluene	100-44-7	92
Bromodichloromethane	75-27-4	106
Bromoform	75-25-2	108
Bromomethane	74-83-9	123
Carbon Disulfide	75-15-0	93
Carbon Tetrachloride	56-23-5	94
Chlorobenzene	108-90-7	95
Chloroethane	75-00-3	88
Chloroform	67-66-3	92
Chloromethane	74-87-3	90
cis-1,2-Dichloroethene	156-59-2	94
cis-1,3-Dichloropropene	10061-01-5	102
Cumene	98-82-8	100
Dibromochloromethane	124-48-1	110
Ethanol	64-17-5	94
Ethyl Benzene	100-41-4	99
Freon 11	75-69-4	95
Freon 113	76-13-1	95
Freon 114	76-14-2	100
Freon 12	75-71-8	92
Heptane	142-82-5	97

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	CCV		
Lab ID:	1301279-10A	Date/Time Analyzed:	1/23/13 10:17 AM
Date/Time Collecte	NA - Not Applicable	Dilution Factor:	1.00
Media:	NA - Not Applicable	Instrument/Filename:	media i / a012302a

Compound	CAS#	%Recovery
Hexachlorobutadiene	87-68-3	83
Hexane	110-54-3	96
m,p-Xylene	108-38-3	98
Methyl tert-butyl ether	1634-04-4	94
Methylene Chloride	75-09-2	86
o-Xylene	95-47-6	99
Propylbenzene	103-65-1	93
Styrene	100-42-5	99
Tetrachloroethene	127-18-4	102
Tetrahydrofuran	109-99-9	94
Toluene	108-88-3	96
trans-1,2-Dichloroethene	156-60-5	93
trans-1,3-Dichloropropene	10061-02-6	103
Trichloroethene	79-01-6	98
Vinyl Chloride	75-01-4	96

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	71-137	91
4-Bromofluorobenzene	460-00-4	79-119	102
Toluene-d8	2037-26-5	83-114	99

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	CCV		
Lab ID:	1301279-10A	Date/Time Analyzed:	1/23/13 10:17 AM
Date/Time Collecte	NA - Not Applicable	Dilution Factor:	1.00
Media:	NA - Not Applicable	Instrument/Filename:	msda.i / a012302a

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	CCV		
Lab ID:	1301279-10B	Date/Time Analyzed:	1/23/13 10:17 AM
Date/Time Collecte	NA - Not Applicable	Dilution Factor:	1.00
Media:	NA - Not Applicable	Instrument/Filename:	msda.i / a012302sim

Compound	CAS#	%Recovery
1,2-Dibromoethane (EDB)	106-93-4	112
Benzene	71-43-2	89

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	80-133	97
4-Bromofluorobenzene	460-00-4	84-115	104
Toluene-d8	2037-26-5	90-108	101

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	LCS		
Lab ID:	1301279-11A	Date/Time Analyzed:	1/23/13 11:04 AM
Date/Time Collecte	NA - Not Applicable	Dilution Factor:	1.00
Media:	NA - Not Applicable	Instrument/Filename:	ms5a / / a012303a

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	
1,1,1-Trichloroethane	71-55-6			89
1,1,2,2-Tetrachloroethane	79-34-5			96
1,1,2-Trichloroethane	79-00-5			102
1,1-Dichloroethane	75-34-3			96
1,1-Dichloroethene	75-35-4			107
1,2,4-Trichlorobenzene	120-82-1			86
1,2,4-Trimethylbenzene	95-63-6			99
1,2-Dichlorobenzene	95-50-1			86
1,2-Dichloroethane	107-06-2			99
1,2-Dichloropropane	78-87-5			99
1,3,5-Trimethylbenzene	108-67-8			105
1,3-Butadiene	106-99-0			99
1,3-Dichlorobenzene	541-73-1			90
1,4-Dichlorobenzene	106-46-7			89
1,4-Dioxane	123-91-1			98
2,2,4-Trimethylpentane	540-84-1			92
2-Butanone (Methyl Ethyl Ketone)	78-93-3			101
2-Hexanone	591-78-6			105
2-Propanol	67-63-0			105
3-Chloropropene	107-05-1			145
4-Ethyltoluene	622-96-8			95
4-Methyl-2-pentanone	108-10-1			103

* % Recovery is calculated using unrounded analytical results.

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	LCS		
Lab ID:	1301279-11A	Date/Time Analyzed:	1/23/13 11:04 AM
Date/Time Collecte	NA - Not Applicable	Dilution Factor:	1.00
Media:	NA - Not Applicable	Instrument/Filename:	media / a012303a

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	
Acetone	67-64-1			89
alpha-Chlorotoluene	100-44-7			93
Bromodichloromethane	75-27-4			110
Bromoform	75-25-2			110
Bromomethane	74-83-9			117
Carbon Disulfide	75-15-0			120
Carbon Tetrachloride	56-23-5			108
Chlorobenzene	108-90-7			98
Chloroethane	75-00-3			91
Chloroform	67-66-3			96
Chloromethane	74-87-3			96
cis-1,2-Dichloroethene	156-59-2			97
cis-1,3-Dichloropropene	10061-01-5			104
Cumene	98-82-8			101
Dibromochloromethane	124-48-1			115
Ethanol	64-17-5			96
Ethyl Benzene	100-41-4			99
Freon 11	75-69-4			100
Freon 113	76-13-1			101
Freon 114	76-14-2			107
Freon 12	75-71-8			98
Heptane	142-82-5			97

* % Recovery is calculated using unrounded analytical results.

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	LCS		
Lab ID:	1301279-11A	Date/Time Analyzed:	1/23/13 11:04 AM
Date/Time Collecte	NA - Not Applicable	Dilution Factor:	1.00
Media:	NA - Not Applicable	Instrument/Filename:	msda.i / a012303a

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	
Hexachlorobutadiene	87-68-3			82
Hexane	110-54-3			99
m,p-Xylene	108-38-3			102
Methyl tert-butyl ether	1634-04-4			101
Methylene Chloride	75-09-2			89
o-Xylene	95-47-6			102
Propylbenzene	103-65-1			94
Styrene	100-42-5			103
Tetrachloroethene	127-18-4			103
Tetrahydrofuran	109-99-9			96
Toluene	108-88-3			99
trans-1,2-Dichloroethene	156-60-5			111
trans-1,3-Dichloropropene	10061-02-6			101
Trichloroethene	79-01-6			104
Vinyl Chloride	75-01-4			102

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	71-137	91
4-Bromofluorobenzene	460-00-4	79-119	104
Toluene-d8	2037-26-5	83-114	101

* % Recovery is calculated using unrounded analytical results.

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	LCS		
Lab ID:	1301279-11A	Date/Time Analyzed:	1/23/13 11:04 AM
Date/Time Collecte	NA - Not Applicable	Dilution Factor:	1.00
Media:	NA - Not Applicable	Instrument/Filename:	msda.i / a012303a

* % Recovery is calculated using unrounded analytical results.

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	LCSD		
Lab ID:	1301279-11AA	Date/Time Analyzed:	1/23/13 12:09 PM
Date/Time Collecte	NA - Not Applicable	Dilution Factor:	1.00
Media:	NA - Not Applicable	Instrument/Filename:	msda / a012304a

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	
1,1,1-Trichloroethane	71-55-6			90
1,1,2,2-Tetrachloroethane	79-34-5			97
1,1,2-Trichloroethane	79-00-5			103
1,1-Dichloroethane	75-34-3			94
1,1-Dichloroethene	75-35-4			106
1,2,4-Trichlorobenzene	120-82-1			71
1,2,4-Trimethylbenzene	95-63-6			88
1,2-Dichlorobenzene	95-50-1			82
1,2-Dichloroethane	107-06-2			98
1,2-Dichloropropane	78-87-5			100
1,3,5-Trimethylbenzene	108-67-8			94
1,3-Butadiene	106-99-0			99
1,3-Dichlorobenzene	541-73-1			84
1,4-Dichlorobenzene	106-46-7			82
1,4-Dioxane	123-91-1			98
2,2,4-Trimethylpentane	540-84-1			118
2-Butanone (Methyl Ethyl Ketone)	78-93-3			100
2-Hexanone	591-78-6			107
2-Propanol	67-63-0			105
3-Chloropropene	107-05-1			155
4-Ethyltoluene	622-96-8			88
4-Methyl-2-pentanone	108-10-1			103

* % Recovery is calculated using unrounded analytical results.

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	LCSD		
Lab ID:	1301279-11AA	Date/Time Analyzed:	1/23/13 12:09 PM
Date/Time Collecte	NA - Not Applicable	Dilution Factor:	1.00
Media:	NA - Not Applicable	Instrument/Filename:	msda.i / a012304a

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	
Acetone	67-64-1			89
alpha-Chlorotoluene	100-44-7			90
Bromodichloromethane	75-27-4			109
Bromoform	75-25-2			110
Bromomethane	74-83-9			125
Carbon Disulfide	75-15-0			118
Carbon Tetrachloride	56-23-5			104
Chlorobenzene	108-90-7			100
Chloroethane	75-00-3			90
Chloroform	67-66-3			98
Chloromethane	74-87-3			96
cis-1,2-Dichloroethene	156-59-2			97
cis-1,3-Dichloropropene	10061-01-5			104
Cumene	98-82-8			99
Dibromochloromethane	124-48-1			116
Ethanol	64-17-5			98
Ethyl Benzene	100-41-4			99
Freon 11	75-69-4			99
Freon 113	76-13-1			102
Freon 114	76-14-2			105
Freon 12	75-71-8			99
Heptane	142-82-5			100

* % Recovery is calculated using unrounded analytical results.

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	LCSD		
Lab ID:	1301279-11AA	Date/Time Analyzed:	1/23/13 12:09 PM
Date/Time Collecte	NA - Not Applicable	Dilution Factor:	1.00
Media:	NA - Not Applicable	Instrument/Filename:	msda.i / a012304a

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	
Hexachlorobutadiene	87-68-3			72
Hexane	110-54-3			99
m,p-Xylene	108-38-3			99
Methyl tert-butyl ether	1634-04-4			102
Methylene Chloride	75-09-2			89
o-Xylene	95-47-6			99
Propylbenzene	103-65-1			89
Styrene	100-42-5			100
Tetrachloroethene	127-18-4			104
Tetrahydrofuran	109-99-9			94
Toluene	108-88-3			98
trans-1,2-Dichloroethene	156-60-5			108
trans-1,3-Dichloropropene	10061-02-6			104
Trichloroethene	79-01-6			104
Vinyl Chloride	75-01-4			104

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	71-137	88
4-Bromofluorobenzene	460-00-4	79-119	102
Toluene-d8	2037-26-5	83-114	100

* % Recovery is calculated using unrounded analytical results.

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	LCSD		
Lab ID:	1301279-11AA	Date/Time Analyzed:	1/23/13 12:09 PM
Date/Time Collecte	NA - Not Applicable	Dilution Factor:	1.00
Media:	NA - Not Applicable	Instrument/Filename:	media / a012304a

* % Recovery is calculated using unrounded analytical results.

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	LCS		
Lab ID:	1301279-11B	Date/Time Analyzed:	1/23/13 11:04 AM
Date/Time Collecte	NA - Not Applicable	Dilution Factor:	1.00
Media:	NA - Not Applicable	Instrument/Filename:	msda.i / a012303asim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	
1,2-Dibromoethane (EDB)	106-93-4			114
Benzene	71-43-2			92

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	80-133	97
4-Bromofluorobenzene	460-00-4	84-115	100
Toluene-d8	2037-26-5	90-108	100

* % Recovery is calculated using unrounded analytical results.

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MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN
KAFB BFF

Client ID:	LCSD		
Lab ID:	1301279-11BB	**Date/Time Analyzed:**	1/23/13 12:09 PM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msda.i / a012304asim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	
1,2-Dibromoethane (EDB)	106-93-4			115
Benzene	71-43-2			93

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	80-133	95
4-Bromofluorobenzene	460-00-4	84-115	98
Toluene-d8	2037-26-5	90-108	101

* % Recovery is calculated using unrounded analytical results.

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Media Certification Report

Canister Number: 6L#403 w/11.5ml#6564
Can#: 88772-403
Date : 01/03/13 20:21
Data File: i010318sim.d

Name	CAS	Conc.	Units
Ethyl Benzene	100-41-4	ND	ppbv
Styrene	100-42-5	ND	ppbv
alpha-Chlorotoluene	100-44-7	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	ND	ppbv
Propylbenzene	103-65-1	ND	ppbv
1,4-Dichlorobenzene	106-46-7	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	ND	ppbv
1,3-Butadiene	106-99-0	ND	ppbv
3-Chloropropene	107-05-1	ND	ppbv
1,2-Dichloroethane	107-06-2	ND	ppbv
Vinyl Acetate	108-05-4	ND	ppbv
4-Methyl-2-pentanone	108-10-1	ND	ppbv
m,p-Xylene	108-38-3	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	ND	ppbv
Toluene	108-88-3	ND	ppbv
Chlorobenzene	108-90-7	ND	ppbv
Tetrahydrofuran	109-99-9	ND	ppbv
Hexane	110-54-3	ND	ppbv
Cyclohexane	110-82-7	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	ND	ppbv
1,4-Dioxane	123-91-1	ND	ppbv
Dibromochloromethane	124-48-1	ND	ppbv
Tetrachloroethene	127-18-4	ND	ppbv
Heptane	142-82-5	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	ND	ppbv
Methyl tert-butyl ether	1634-04-4	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	ND	ppbv
1,3-Dichlorobenzene	541-73-1	ND	ppbv
Carbon Tetrachloride	56-23-5	ND	ppbv
2-Hexanone	591-78-6	ND	ppbv
4-Ethyltoluene	622-96-8	ND	ppbv
Ethanol	64-17-5	ND	ppbv
2-Propanol	67-63-0	ND	ppbv
Acetone	67-64-1	ND	ppbv
Chloroform	67-66-3	ND	ppbv
Benzene	71-43-2	ND	ppbv
1,1,1-Trichloroethane	71-55-6	ND	ppbv
Bromomethane	74-83-9	ND	ppbv
Chloromethane	74-87-3	ND	ppbv
Chloroethane	75-00-3	ND	ppbv
Vinyl Chloride	75-01-4	ND	ppbv

Name	CAS	Conc.	Units
Methylene Chloride	75-09-2	ND	ppbv
Carbon Disulfide	75-15-0	ND	ppbv
Bromoform	75-25-2	ND	ppbv
Bromodichloromethane	75-27-4	ND	ppbv
1,1-Dichloroethane	75-34-3	ND	ppbv
1,1-Dichloroethene	75-35-4	ND	ppbv
Freon 11	75-69-4	ND	ppbv
Freon 12	75-71-8	ND	ppbv
Freon 113	76-13-1	ND	ppbv
Freon 114	76-14-2	ND	ppbv
1,2-Dichloropropane	78-87-5	ND	ppbv
2-Butanone (Methyl Ethyl	78-93-3	ND	ppbv
1,1,2-Trichloroethane	79-00-5	ND	ppbv
Trichloroethene	79-01-6	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	ND	ppbv
Hexachlorobutadiene	87-68-3	ND	ppbv
Naphthalene	91-20-3	ND	ppbv
o-Xylene	95-47-6	ND	ppbv
1,2-Dichlorobenzene	95-50-1	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	ND	ppbv
Cumene	98-82-8	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0	108.00	% Recovery
Toluene-d8	2037-26-5	106.00	% Recovery
4-Bromofluorobenzene	460-00-4	97.00	% Recovery

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Media Certification Report

Canister Number: 6L#96115 w/11.5ml#6749
Can#: 88772-96115
Date : 01/03/13 22:11
Data File: i010321sim.d

Name	CAS	Conc.	Units
Ethyl Benzene	100-41-4	ND	ppbv
Styrene	100-42-5	ND	ppbv
alpha-Chlorotoluene	100-44-7	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	ND	ppbv
Propylbenzene	103-65-1	ND	ppbv
1,4-Dichlorobenzene	106-46-7	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	ND	ppbv
1,3-Butadiene	106-99-0	ND	ppbv
3-Chloropropene	107-05-1	ND	ppbv
1,2-Dichloroethane	107-06-2	ND	ppbv
Vinyl Acetate	108-05-4	ND	ppbv
4-Methyl-2-pentanone	108-10-1	ND	ppbv
m,p-Xylene	108-38-3	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	ND	ppbv
Toluene	108-88-3	ND	ppbv
Chlorobenzene	108-90-7	ND	ppbv
Tetrahydrofuran	109-99-9	ND	ppbv
Hexane	110-54-3	ND	ppbv
Cyclohexane	110-82-7	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	ND	ppbv
1,4-Dioxane	123-91-1	ND	ppbv
Dibromochloromethane	124-48-1	ND	ppbv
Tetrachloroethene	127-18-4	ND	ppbv
Heptane	142-82-5	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	ND	ppbv
Methyl tert-butyl ether	1634-04-4	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	ND	ppbv
1,3-Dichlorobenzene	541-73-1	ND	ppbv
Carbon Tetrachloride	56-23-5	ND	ppbv
2-Hexanone	591-78-6	ND	ppbv
4-Ethyltoluene	622-96-8	ND	ppbv
Ethanol	64-17-5	ND	ppbv
2-Propanol	67-63-0	ND	ppbv
Acetone	67-64-1	ND	ppbv
Chloroform	67-66-3	ND	ppbv
Benzene	71-43-2	ND	ppbv
1,1,1-Trichloroethane	71-55-6	ND	ppbv
Bromomethane	74-83-9	ND	ppbv
Chloromethane	74-87-3	ND	ppbv
Chloroethane	75-00-3	ND	ppbv
Vinyl Chloride	75-01-4	ND	ppbv

Name	CAS	Conc.	Units
Methylene Chloride	75-09-2	ND	ppbv
Carbon Disulfide	75-15-0	ND	ppbv
Bromoform	75-25-2	ND	ppbv
Bromodichloromethane	75-27-4	ND	ppbv
1,1-Dichloroethane	75-34-3	ND	ppbv
1,1-Dichloroethene	75-35-4	ND	ppbv
Freon 11	75-69-4	ND	ppbv
Freon 12	75-71-8	ND	ppbv
Freon 113	76-13-1	ND	ppbv
Freon 114	76-14-2	ND	ppbv
1,2-Dichloropropane	78-87-5	ND	ppbv
2-Butanone (Methyl Ethyl	78-93-3	ND	ppbv
1,1,2-Trichloroethane	79-00-5	ND	ppbv
Trichloroethene	79-01-6	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	ND	ppbv
Hexachlorobutadiene	87-68-3	ND	ppbv
Naphthalene	91-20-3	ND	ppbv
o-Xylene	95-47-6	ND	ppbv
1,2-Dichlorobenzene	95-50-1	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	ND	ppbv
Cumene	98-82-8	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0	104.00	% Recovery
Toluene-d8	2037-26-5	106.00	% Recovery
4-Bromofluorobenzene	460-00-4	98.00	% Recovery

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Media Certification Report

Canister Number: 6L#4187 w/11.5ml#FC00831
Can#: 88772-4187
Date : 01/03/13 19:44
Data File: i010317sim.d

Name	CAS	Conc.	Units
Ethyl Benzene	100-41-4	ND	ppbv
Styrene	100-42-5	ND	ppbv
alpha-Chlorotoluene	100-44-7	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	ND	ppbv
Propylbenzene	103-65-1	ND	ppbv
1,4-Dichlorobenzene	106-46-7	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	ND	ppbv
1,3-Butadiene	106-99-0	ND	ppbv
3-Chloropropene	107-05-1	ND	ppbv
1,2-Dichloroethane	107-06-2	ND	ppbv
Vinyl Acetate	108-05-4	ND	ppbv
4-Methyl-2-pentanone	108-10-1	ND	ppbv
m,p-Xylene	108-38-3	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	ND	ppbv
Toluene	108-88-3	ND	ppbv
Chlorobenzene	108-90-7	ND	ppbv
Tetrahydrofuran	109-99-9	ND	ppbv
Hexane	110-54-3	ND	ppbv
Cyclohexane	110-82-7	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	ND	ppbv
1,4-Dioxane	123-91-1	ND	ppbv
Dibromochloromethane	124-48-1	ND	ppbv
Tetrachloroethene	127-18-4	ND	ppbv
Heptane	142-82-5	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	ND	ppbv
Methyl tert-butyl ether	1634-04-4	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	ND	ppbv
1,3-Dichlorobenzene	541-73-1	ND	ppbv
Carbon Tetrachloride	56-23-5	ND	ppbv
2-Hexanone	591-78-6	ND	ppbv
4-Ethyltoluene	622-96-8	ND	ppbv
Ethanol	64-17-5	ND	ppbv
2-Propanol	67-63-0	ND	ppbv
Acetone	67-64-1	ND	ppbv
Chloroform	67-66-3	ND	ppbv
Benzene	71-43-2	ND	ppbv
1,1,1-Trichloroethane	71-55-6	ND	ppbv
Bromomethane	74-83-9	ND	ppbv
Chloromethane	74-87-3	ND	ppbv
Chloroethane	75-00-3	ND	ppbv
Vinyl Chloride	75-01-4	ND	ppbv

Name	CAS	Conc.	Units
Methylene Chloride	75-09-2	ND	ppbv
Carbon Disulfide	75-15-0	ND	ppbv
Bromoform	75-25-2	ND	ppbv
Bromodichloromethane	75-27-4	ND	ppbv
1,1-Dichloroethane	75-34-3	ND	ppbv
1,1-Dichloroethene	75-35-4	ND	ppbv
Freon 11	75-69-4	ND	ppbv
Freon 12	75-71-8	ND	ppbv
Freon 113	76-13-1	ND	ppbv
Freon 114	76-14-2	ND	ppbv
1,2-Dichloropropane	78-87-5	ND	ppbv
2-Butanone (Methyl Ethyl	78-93-3	ND	ppbv
1,1,2-Trichloroethane	79-00-5	ND	ppbv
Trichloroethene	79-01-6	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	ND	ppbv
Hexachlorobutadiene	87-68-3	ND	ppbv
Naphthalene	91-20-3	ND	ppbv
o-Xylene	95-47-6	ND	ppbv
1,2-Dichlorobenzene	95-50-1	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	ND	ppbv
Cumene	98-82-8	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0	112.00	% Recovery
Toluene-d8	2037-26-5	106.00	% Recovery
4-Bromofluorobenzene	460-00-4	95.00	% Recovery

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Media Certification Report

Canister Number: 6L#34486 w/11.5ml#40782
Can#: 88772-34486
Date : 01/03/13 19:06
Data File: i010316sim.d

Name	CAS	Conc.	Units
Ethyl Benzene	100-41-4	ND	ppbv
Styrene	100-42-5	ND	ppbv
alpha-Chlorotoluene	100-44-7	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	ND	ppbv
Propylbenzene	103-65-1	ND	ppbv
1,4-Dichlorobenzene	106-46-7	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	ND	ppbv
1,3-Butadiene	106-99-0	ND	ppbv
3-Chloropropene	107-05-1	ND	ppbv
1,2-Dichloroethane	107-06-2	ND	ppbv
Vinyl Acetate	108-05-4	ND	ppbv
4-Methyl-2-pentanone	108-10-1	ND	ppbv
m,p-Xylene	108-38-3	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	ND	ppbv
Toluene	108-88-3	ND	ppbv
Chlorobenzene	108-90-7	ND	ppbv
Tetrahydrofuran	109-99-9	ND	ppbv
Hexane	110-54-3	ND	ppbv
Cyclohexane	110-82-7	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	ND	ppbv
1,4-Dioxane	123-91-1	ND	ppbv
Dibromochloromethane	124-48-1	ND	ppbv
Tetrachloroethene	127-18-4	ND	ppbv
Heptane	142-82-5	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	ND	ppbv
Methyl tert-butyl ether	1634-04-4	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	ND	ppbv
1,3-Dichlorobenzene	541-73-1	ND	ppbv
Carbon Tetrachloride	56-23-5	ND	ppbv
2-Hexanone	591-78-6	ND	ppbv
4-Ethyltoluene	622-96-8	ND	ppbv
Ethanol	64-17-5	ND	ppbv
2-Propanol	67-63-0	ND	ppbv
Acetone	67-64-1	ND	ppbv
Chloroform	67-66-3	ND	ppbv
Benzene	71-43-2	ND	ppbv
1,1,1-Trichloroethane	71-55-6	ND	ppbv
Bromomethane	74-83-9	ND	ppbv
Chloromethane	74-87-3	ND	ppbv
Chloroethane	75-00-3	ND	ppbv
Vinyl Chloride	75-01-4	ND	ppbv

Name	CAS	Conc.	Units
Methylene Chloride	75-09-2	ND	ppbv
Carbon Disulfide	75-15-0	ND	ppbv
Bromoform	75-25-2	ND	ppbv
Bromodichloromethane	75-27-4	ND	ppbv
1,1-Dichloroethane	75-34-3	ND	ppbv
1,1-Dichloroethene	75-35-4	ND	ppbv
Freon 11	75-69-4	ND	ppbv
Freon 12	75-71-8	ND	ppbv
Freon 113	76-13-1	ND	ppbv
Freon 114	76-14-2	ND	ppbv
1,2-Dichloropropane	78-87-5	ND	ppbv
2-Butanone (Methyl Ethyl	78-93-3	ND	ppbv
1,1,2-Trichloroethane	79-00-5	ND	ppbv
Trichloroethene	79-01-6	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	ND	ppbv
Hexachlorobutadiene	87-68-3	ND	ppbv
Naphthalene	91-20-3	ND	ppbv
o-Xylene	95-47-6	ND	ppbv
1,2-Dichlorobenzene	95-50-1	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	ND	ppbv
Cumene	98-82-8	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0	110.00	% Recovery
Toluene-d8	2037-26-5	104.00	% Recovery
4-Bromofluorobenzene	460-00-4	100.00	% Recovery

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Media Certification Report

Canister Number: 6L#25301 w/11.5ml#6496
Can#: 88772-25301
Date : 01/03/13 21:34
Data File: i010320sim.d

Name	CAS	Conc.	Units
Ethyl Benzene	100-41-4	ND	ppbv
Styrene	100-42-5	ND	ppbv
alpha-Chlorotoluene	100-44-7	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	ND	ppbv
Propylbenzene	103-65-1	ND	ppbv
1,4-Dichlorobenzene	106-46-7	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	ND	ppbv
1,3-Butadiene	106-99-0	ND	ppbv
3-Chloropropene	107-05-1	ND	ppbv
1,2-Dichloroethane	107-06-2	ND	ppbv
Vinyl Acetate	108-05-4	ND	ppbv
4-Methyl-2-pentanone	108-10-1	ND	ppbv
m,p-Xylene	108-38-3	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	ND	ppbv
Toluene	108-88-3	ND	ppbv
Chlorobenzene	108-90-7	ND	ppbv
Tetrahydrofuran	109-99-9	ND	ppbv
Hexane	110-54-3	ND	ppbv
Cyclohexane	110-82-7	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	ND	ppbv
1,4-Dioxane	123-91-1	ND	ppbv
Dibromochloromethane	124-48-1	ND	ppbv
Tetrachloroethene	127-18-4	ND	ppbv
Heptane	142-82-5	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	ND	ppbv
Methyl tert-butyl ether	1634-04-4	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	ND	ppbv
1,3-Dichlorobenzene	541-73-1	ND	ppbv
Carbon Tetrachloride	56-23-5	ND	ppbv
2-Hexanone	591-78-6	ND	ppbv
4-Ethyltoluene	622-96-8	ND	ppbv
Ethanol	64-17-5	ND	ppbv
2-Propanol	67-63-0	ND	ppbv
Acetone	67-64-1	ND	ppbv
Chloroform	67-66-3	ND	ppbv
Benzene	71-43-2	ND	ppbv
1,1,1-Trichloroethane	71-55-6	ND	ppbv
Bromomethane	74-83-9	ND	ppbv
Chloromethane	74-87-3	ND	ppbv
Chloroethane	75-00-3	ND	ppbv
Vinyl Chloride	75-01-4	ND	ppbv

Name	CAS	Conc.	Units
Methylene Chloride	75-09-2	ND	ppbv
Carbon Disulfide	75-15-0	ND	ppbv
Bromoform	75-25-2	ND	ppbv
Bromodichloromethane	75-27-4	ND	ppbv
1,1-Dichloroethane	75-34-3	ND	ppbv
1,1-Dichloroethene	75-35-4	ND	ppbv
Freon 11	75-69-4	ND	ppbv
Freon 12	75-71-8	ND	ppbv
Freon 113	76-13-1	ND	ppbv
Freon 114	76-14-2	ND	ppbv
1,2-Dichloropropane	78-87-5	ND	ppbv
2-Butanone (Methyl Ethyl	78-93-3	ND	ppbv
1,1,2-Trichloroethane	79-00-5	ND	ppbv
Trichloroethene	79-01-6	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	ND	ppbv
Hexachlorobutadiene	87-68-3	ND	ppbv
Naphthalene	91-20-3	ND	ppbv
o-Xylene	95-47-6	ND	ppbv
1,2-Dichlorobenzene	95-50-1	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	ND	ppbv
Cumene	98-82-8	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0	111.00	% Recovery
Toluene-d8	2037-26-5	104.00	% Recovery
4-Bromofluorobenzene	460-00-4	95.00	% Recovery

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Media Certification Report

Canister Number: 6L#33677 w/11.5ml#FC00348
Can#: 88772-33677
Date : 01/03/13 17:53
Data File: i010314sim.d

Name	CAS	Conc.	Units
Ethyl Benzene	100-41-4	ND	ppbv
Styrene	100-42-5	ND	ppbv
alpha-Chlorotoluene	100-44-7	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	ND	ppbv
Propylbenzene	103-65-1	ND	ppbv
1,4-Dichlorobenzene	106-46-7	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	ND	ppbv
1,3-Butadiene	106-99-0	ND	ppbv
3-Chloropropene	107-05-1	ND	ppbv
1,2-Dichloroethane	107-06-2	ND	ppbv
Vinyl Acetate	108-05-4	ND	ppbv
4-Methyl-2-pentanone	108-10-1	ND	ppbv
m,p-Xylene	108-38-3	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	ND	ppbv
Toluene	108-88-3	ND	ppbv
Chlorobenzene	108-90-7	ND	ppbv
Tetrahydrofuran	109-99-9	ND	ppbv
Hexane	110-54-3	ND	ppbv
Cyclohexane	110-82-7	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	ND	ppbv
1,4-Dioxane	123-91-1	ND	ppbv
Dibromochloromethane	124-48-1	ND	ppbv
Tetrachloroethene	127-18-4	ND	ppbv
Heptane	142-82-5	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	ND	ppbv
Methyl tert-butyl ether	1634-04-4	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	ND	ppbv
1,3-Dichlorobenzene	541-73-1	ND	ppbv
Carbon Tetrachloride	56-23-5	ND	ppbv
2-Hexanone	591-78-6	ND	ppbv
4-Ethyltoluene	622-96-8	ND	ppbv
Ethanol	64-17-5	ND	ppbv
2-Propanol	67-63-0	ND	ppbv
Acetone	67-64-1	ND	ppbv
Chloroform	67-66-3	ND	ppbv
Benzene	71-43-2	ND	ppbv
1,1,1-Trichloroethane	71-55-6	ND	ppbv
Bromomethane	74-83-9	ND	ppbv
Chloromethane	74-87-3	ND	ppbv
Chloroethane	75-00-3	ND	ppbv
Vinyl Chloride	75-01-4	ND	ppbv

Name	CAS	Conc.	Units
Methylene Chloride	75-09-2	ND	ppbv
Carbon Disulfide	75-15-0	ND	ppbv
Bromoform	75-25-2	ND	ppbv
Bromodichloromethane	75-27-4	ND	ppbv
1,1-Dichloroethane	75-34-3	ND	ppbv
1,1-Dichloroethene	75-35-4	ND	ppbv
Freon 11	75-69-4	ND	ppbv
Freon 12	75-71-8	ND	ppbv
Freon 113	76-13-1	ND	ppbv
Freon 114	76-14-2	ND	ppbv
1,2-Dichloropropane	78-87-5	ND	ppbv
2-Butanone (Methyl Ethyl	78-93-3	ND	ppbv
1,1,2-Trichloroethane	79-00-5	ND	ppbv
Trichloroethene	79-01-6	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	ND	ppbv
Hexachlorobutadiene	87-68-3	ND	ppbv
Naphthalene	91-20-3	ND	ppbv
o-Xylene	95-47-6	ND	ppbv
1,2-Dichlorobenzene	95-50-1	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	ND	ppbv
Cumene	98-82-8	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0	112.00	% Recovery
Toluene-d8	2037-26-5	106.00	% Recovery
4-Bromofluorobenzene	460-00-4	99.00	% Recovery

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Media Certification Report

Canister Number: 6L#14890 w/11.5ml#FC00642
Can#: 88772-14890
Date : 01/03/13 18:29
Data File: i010315sim.d

Name	CAS	Conc.	Units
Ethyl Benzene	100-41-4	ND	ppbv
Styrene	100-42-5	ND	ppbv
alpha-Chlorotoluene	100-44-7	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	ND	ppbv
Propylbenzene	103-65-1	ND	ppbv
1,4-Dichlorobenzene	106-46-7	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	ND	ppbv
1,3-Butadiene	106-99-0	ND	ppbv
3-Chloropropene	107-05-1	ND	ppbv
1,2-Dichloroethane	107-06-2	ND	ppbv
Vinyl Acetate	108-05-4	ND	ppbv
4-Methyl-2-pentanone	108-10-1	ND	ppbv
m,p-Xylene	108-38-3	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	ND	ppbv
Toluene	108-88-3	ND	ppbv
Chlorobenzene	108-90-7	ND	ppbv
Tetrahydrofuran	109-99-9	ND	ppbv
Hexane	110-54-3	ND	ppbv
Cyclohexane	110-82-7	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	ND	ppbv
1,4-Dioxane	123-91-1	ND	ppbv
Dibromochloromethane	124-48-1	ND	ppbv
Tetrachloroethene	127-18-4	ND	ppbv
Heptane	142-82-5	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	ND	ppbv
Methyl tert-butyl ether	1634-04-4	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	ND	ppbv
1,3-Dichlorobenzene	541-73-1	ND	ppbv
Carbon Tetrachloride	56-23-5	ND	ppbv
2-Hexanone	591-78-6	ND	ppbv
4-Ethyltoluene	622-96-8	ND	ppbv
Ethanol	64-17-5	ND	ppbv
2-Propanol	67-63-0	ND	ppbv
Acetone	67-64-1	ND	ppbv
Chloroform	67-66-3	ND	ppbv
Benzene	71-43-2	ND	ppbv
1,1,1-Trichloroethane	71-55-6	ND	ppbv
Bromomethane	74-83-9	ND	ppbv
Chloromethane	74-87-3	ND	ppbv
Chloroethane	75-00-3	ND	ppbv
Vinyl Chloride	75-01-4	ND	ppbv

Name	CAS	Conc.	Units
Methylene Chloride	75-09-2	ND	ppbv
Carbon Disulfide	75-15-0	ND	ppbv
Bromoform	75-25-2	ND	ppbv
Bromodichloromethane	75-27-4	ND	ppbv
1,1-Dichloroethane	75-34-3	ND	ppbv
1,1-Dichloroethene	75-35-4	ND	ppbv
Freon 11	75-69-4	ND	ppbv
Freon 12	75-71-8	ND	ppbv
Freon 113	76-13-1	ND	ppbv
Freon 114	76-14-2	ND	ppbv
1,2-Dichloropropane	78-87-5	ND	ppbv
2-Butanone (Methyl Ethyl	78-93-3	ND	ppbv
1,1,2-Trichloroethane	79-00-5	ND	ppbv
Trichloroethene	79-01-6	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	ND	ppbv
Hexachlorobutadiene	87-68-3	ND	ppbv
Naphthalene	91-20-3	ND	ppbv
o-Xylene	95-47-6	ND	ppbv
1,2-Dichlorobenzene	95-50-1	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	ND	ppbv
Cumene	98-82-8	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0	108.00	% Recovery
Toluene-d8	2037-26-5	104.00	% Recovery
4-Bromofluorobenzene	460-00-4	98.00	% Recovery

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Media Certification Report

Canister Number: 6L#9567 w/11.5ml#FC00380
Can#: 88772-9567
Date : 01/04/13 1:16
Data File: i010326sim.d

Name	CAS	Conc.	Units
Ethyl Benzene	100-41-4	ND	ppbv
Styrene	100-42-5	ND	ppbv
alpha-Chlorotoluene	100-44-7	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	ND	ppbv
Propylbenzene	103-65-1	ND	ppbv
1,4-Dichlorobenzene	106-46-7	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	ND	ppbv
1,3-Butadiene	106-99-0	ND	ppbv
3-Chloropropene	107-05-1	ND	ppbv
1,2-Dichloroethane	107-06-2	ND	ppbv
Vinyl Acetate	108-05-4	ND	ppbv
4-Methyl-2-pentanone	108-10-1	ND	ppbv
m,p-Xylene	108-38-3	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	ND	ppbv
Toluene	108-88-3	ND	ppbv
Chlorobenzene	108-90-7	ND	ppbv
Tetrahydrofuran	109-99-9	ND	ppbv
Hexane	110-54-3	ND	ppbv
Cyclohexane	110-82-7	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	ND	ppbv
1,4-Dioxane	123-91-1	ND	ppbv
Dibromochloromethane	124-48-1	ND	ppbv
Tetrachloroethene	127-18-4	ND	ppbv
Heptane	142-82-5	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	ND	ppbv
Methyl tert-butyl ether	1634-04-4	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	ND	ppbv
1,3-Dichlorobenzene	541-73-1	ND	ppbv
Carbon Tetrachloride	56-23-5	ND	ppbv
2-Hexanone	591-78-6	ND	ppbv
4-Ethyltoluene	622-96-8	ND	ppbv
Ethanol	64-17-5	ND	ppbv
2-Propanol	67-63-0	ND	ppbv
Acetone	67-64-1	ND	ppbv
Chloroform	67-66-3	ND	ppbv
Benzene	71-43-2	ND	ppbv
1,1,1-Trichloroethane	71-55-6	ND	ppbv
Bromomethane	74-83-9	ND	ppbv
Chloromethane	74-87-3	ND	ppbv
Chloroethane	75-00-3	ND	ppbv
Vinyl Chloride	75-01-4	ND	ppbv

Name	CAS	Conc.	Units
Methylene Chloride	75-09-2	ND	ppbv
Carbon Disulfide	75-15-0	ND	ppbv
Bromoform	75-25-2	ND	ppbv
Bromodichloromethane	75-27-4	ND	ppbv
1,1-Dichloroethane	75-34-3	ND	ppbv
1,1-Dichloroethene	75-35-4	ND	ppbv
Freon 11	75-69-4	ND	ppbv
Freon 12	75-71-8	ND	ppbv
Freon 113	76-13-1	ND	ppbv
Freon 114	76-14-2	ND	ppbv
1,2-Dichloropropane	78-87-5	ND	ppbv
2-Butanone (Methyl Ethyl	78-93-3	ND	ppbv
1,1,2-Trichloroethane	79-00-5	ND	ppbv
Trichloroethene	79-01-6	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	ND	ppbv
Hexachlorobutadiene	87-68-3	ND	ppbv
Naphthalene	91-20-3	ND	ppbv
o-Xylene	95-47-6	ND	ppbv
1,2-Dichlorobenzene	95-50-1	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	ND	ppbv
Cumene	98-82-8	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0	118.00	% Recovery
Toluene-d8	2037-26-5	106.00	% Recovery
4-Bromofluorobenzene	460-00-4	94.00	% Recovery