

Appendix A Raw Sampling Data

- This appendix contains 3 page including cover.

■ **Line 2 Main Stack VOC Raw Sampling Data**

Sample Description	Sampling Date	Sampling Period	Sample Duration (min)	Initial Flow (mL/min)	Final Flow (mL/min)	Ave Flow (mL/min)	Sample Vol (m ³)	Ambient Temp (°C)	Ambient Press. (kPa)	Sample Vol (m ³) ¹
Line 2 Run 1 Spike	13/11/2018	9:17 - 10:17	60	1361.8	1344.8	1353.3	0.0812	22.7	101.3	0.0750
Line 2 Run 2 Spike	13/11/2018	10:34 - 11:34	60	1341.2	1354.3	1347.8	0.0809	24.2	101.4	0.0744
Line 2 Run 1 Sample	13/11/2018	9:17 - 10:17	60	1381.7	1352.0	1366.9	0.0820	22.7	101.3	0.0757
Line 2 Run 2 Sample	13/11/2018	10:34 - 11:34	60	1389.9	1414.2	1402.1	0.0841	24.2	101.4	0.0773

1. Corrected to 0 °C, 101.3 kPa, dry gas basis

■ **Internal Lacquer/Assembly VOC Raw Sampling Data**

Sample Description	Sampling Date	Sampling Period	Sample Duration (min)	Initial Flow (mL/min)	Final Flow (mL/min)	Ave Flow (mL/min)	Sample Vol (m ³)	Ambient Temp (°C)	Ambient Press. (kPa)	Sample Vol (m ³) ¹
Internal Lacquer Run 1 Spike	14/11/2018	8:36 - 9:36	60	1371.0	1360.8	1365.9	0.0820	25.4	101.9	0.0754
Internal Lacquer Run 2 Spike	14/11/2018	9:52 - 11:20	60	1327.6	1340.6	1334.1	0.0800	24.8	101.8	0.0737
Internal Lacquer Run 1 Sample	14/11/2018	8:36 - 9:36	60	1377.5	1356.7	1367.1	0.0820	25.4	101.9	0.0755
Internal Lacquer Run 2 Sample	14/11/2018	9:52 - 11:20	60	1424.8	1434.9	1429.9	0.0858	24.8	101.8	0.0790

1. Corrected to 0 °C, 101.3 kPa

Note: Run 2 was paused for morning tea

■ **Line 2 Main Stack Alcohols Raw Sampling Data**

Sample Description	Sampling Date	Sampling Period	Sample Duration (min)	Initial Flow (mL/min)	Final Flow (mL/min)	Ave Flow (mL/min)	Sample Vol (m ³)	Ambient Temp (°C)	Ambient Press. (kPa)	Sample Vol (m ³) ¹
Line 2 Run 1 Spike	13/11/2018	9:00 - 10:00	60	1595.0	1594.8	1594.9	0.0957	22.7	101.3	0.0884
Line 2 Run 2 Spike	13/11/2018	10:27 - 11:27	60	1648.9	1660.2	1654.6	0.0993	24.2	101.4	0.0913
Line 2 Run 1 Sample	13/11/2018	9:00 - 10:00	60	1575.4	1582.7	1579.1	0.0947	22.7	101.3	0.0875
Line 2 Run 2 Sample	13/11/2018	10:27 - 11:27	60	1553.8	1573.8	1563.8	0.0938	24.2	101.4	0.0863

1. Corrected to 0 °C, 101.3 kPa, dry gas basis

SOURCE TESTING NZ

■ **Internal Lacquer/Assembly Alcohols Raw Sampling Data**

Sample Description	Sampling Date	Sampling Period	Sample Duration (min)	Initial Flow (mL/min)	Final Flow (mL/min)	Ave Flow (mL/min)	Sample Vol (m ³)	Ambient Temp (°C)	Ambient Press. (kPa)	Sample Vol (m ³) ¹
Internal Lacquer Run 1 Spike	14/11/2018	8:36 - 9:36	60	1389.4	1394.3	1391.9	0.0835	25.4	101.9	0.0769
Internal Lacquer Run 2 Spike	14/11/2018	9:52 - 11:20	60	1349.6	1365.2	1357.4	0.0814	24.8	101.8	0.0750
Internal Lacquer Run 1 Sample	14/11/2018	8:36 - 9:36	60	1265.8	1272.6	1269.2	0.0762	25.4	101.9	0.0701
Internal Lacquer Run 2 Sample	14/11/2018	9:52 - 11:20	60	1346.8	1376.9	1361.9	0.0817	24.8	101.8	0.0753

1. Corrected to 0 °C, 101.3 kPa, dry gas basis

Appendix B Raw Velocity Data

- This appendix includes 8 pages including the cover.

■ **NCI Upper Hutt Stack Conditions November 2018**

Sample Description:	NCI Line 2 Run 1	NCI Line 2 Run 2	Average	Internal Lacquer Run 1	Internal Lacquer Run 2	Average
Sampling Date:	13/11/2018	13/11/2018		14/11/2018	14/11/2018	
Sampling Period:	9:17 - 10:17	10:34 - 11:34		8:36 - 9:36	9:52 - 11:20	
Sampling Plane Velocity (m/s):	7.6	7.8	7.7	8.2	8.3	8.2
Discharge Velocity (m/s):	14.6	15.0	14.8	15.7	15.9	15.8
At Sampling Plane (°C):	92.0	90.9	91.5	44.1	36.6	40.4
Moisture Content Est (%):	5.0	5.0		5.0	5.0	
Ambient Pressure (kPa):	101.3	101.4		101.9	101.9	
Moist (m ³ /h):	4,362	4,464	4,413	4,685	4,750	4,718
Moist Standards (m ³ /h) ¹ :	3,262	3,352		4,057	4,213	
Dry Standard (m ³ /h):	3,099	3,184	3,142	3,854	4,002	3,928

1. Corrected to 0 °C, 101.3 kPa, dry gas basis

■ **NCI Upper Hutt Stack Conditions December 2018**

Sample Description:	NCI Line 2	Internal Lacquer
Sampling Date:	5/12/2018	5/12/2018
Sampling Period:	10:36 - 11:30	11:35 - 12:30
Sampling Plane Velocity (m/s):	7.4	7.8
Discharge Velocity (m/s):	14.2	14.9
At Sampling Plane (°C):	90.7	34.3
Moisture Content Est (%):	5.0	5.0
Ambient Pressure (kPa):	100.6	100.6
Moist (m ³ /h):	4,253	4,457
Moist Standards (m ³ /h) ¹ :	3,402	3,931
Dry Standard (m ³ /h):	3,232	3,735

1. Corrected to 20 °C, 101.3 kPa, dry gas basis

Preliminary Stack Survey

Source	NCI Line 2 Run 1	
Date	13-Nov-18	
Pitot	ST030	
Number of lines used for survey	1	
Which sampling line was used?	a	

Molecular Weight of Stack Gas

Was CO2 measured in the stack?

No

Accurately state fuel for CO2 calculation

No

 Choose: None / Natural Gas / Light Fuel Oil / Heavy Fuel Oil / Coal

Calculated CO2 Value

No

O2 Reference?

No

 %

Duct Characteristics

Type	Circular	
Depth/Dia	0.45	m
Width		m
Area	0.159	m ²
Port Depth	0	mm

Sampling Lines & Sample Points

Line A						
Traverse Point	ΔP_{pt} mmH ₂ O	ΔP_{pt} Pa	Temp °C	Velocity (corrected for swirl) m/s	O ₂ %	Angle of Swirl °
1	3.7	36.0	92.0	7.32	21.0	0
2	3.4	33.0	92.0	7.01	21.0	0
3	4.6	45.0	92.0	8.18	21.0	0
4	3.7	36.0	92.0	7.32	21.0	0
5	3.3	32.0	92.0	6.90	21.0	0
6	4.0	39.0	92.0	7.62	21.0	0
7	4.6	45.0	92.0	8.18	21.0	0
8	4.9	48.0	92.0	8.45	21.0	0
9	4.6	45.0	92.0	8.18	21.0	0
10	3.9	38.0	92.0	7.52	21.0	0
11	3.9	38.0	92.0	7.52	21.0	0
12	3.6	35.0	92.0	7.22	21.0	0
13						0
14						0
15						0
16						0
Mean	4.0	39.2	92.0	7.62	21.0	

Line B							
Traverse Point	Distance into duct (m)	ΔP_{pt} mmH ₂ O	ΔP_{pt} Pa	Temp °C	Velocity m/s	O ₂ %	Angle of Swirl °
1	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-
Mean	-	-	-	-	-	-	-

AVERAGE	-	4.1	39.7	92	7.67	-	-
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Pitot tube velocity constant, K_p

34.97

Velocity pressure coefficient, C_p

0.839

Mean Oxygen

21.0

 Moisture Content Calculations

Mean CO₂

0.0

 RH, %

Mean Md

28.84

 Saturated Vapour Pressure, mmHg

Moisture %

5.0

Mean Ms

28.30

Barometric Pressure, kPa

101.3

Static Pressure, Pa

759.8

Absolute Stack Pressure

250

Angle of Swirl

1.87

Lowest Gas Velocity, m/s

761.6

Highest Gas Velocity, m/s

0

Mean Velocity, m/s

6.90

Lowest Gas Velocity, m/s

8.45

Highest Gas Velocity, m/s

7.62

Mean Velocity, m/s

7.62

Duct Volumetric Flow Rates

Moist, m³/h

4.362

Moist Standards, m³/h

3.262

Dry Standard, m³/h

3.099

SOURCE TESTING NZ

Preliminary Stack Survey

Source	NCI Line 2 Run 2	
Date	13-Nov-18	
Pitot	ST030	
Number of lines used for survey	1	
Which sampling line was used?	a	

Molecular Weight of Stack Gas

Was CO2 measured in the stack? No

Accurately state fuel for CO2 calculation No Choose: None / Natural Gas / Light Fuel Oil / Heavy Fuel Oil / Coal

Calculated CO2 Value No

O2 Reference? No %

Duct Characteristics

Type	Circular	
Depth/Dia	0.45	m
Width		m
Area	0.159	m ²
Port Depth	0	mm

Sampling Lines & Sample Points

Line A						
Traverse Point	ΔP_{pt} mmH ₂ O	ΔP_{pt} Pa	Temp °C	Velocity (corrected for swirl) m/s	O ₂ %	Angle of Swirl °
1	3.4	33.0	90.9	6.99	21.0	0
2	3.7	36.0	90.9	7.30	21.0	0
3	3.9	38.0	90.9	7.50	21.0	0
4	4.3	42.0	90.9	7.89	21.0	0
5	4.4	43.0	90.9	7.98	21.0	0
6	4.1	40.0	90.9	7.70	21.0	0
7	4.1	40.0	90.9	7.70	21.0	0
8	4.2	41.0	90.9	7.79	21.0	0
9	3.8	37.0	90.9	7.40	21.0	0
10	4.8	47.0	90.9	8.34	21.0	0
11	5.0	49.0	90.9	8.52	21.0	0
12	4.9	48.0	90.9	8.43	21.0	0
13						0
14						0
15						0
16						0
Mean	4.2	41.2	90.9	7.80	21.0	

Line B							
Traverse Point	Distance into duct (m)	ΔP_{pt} mmH ₂ O	ΔP_{pt} Pa	Temp °C	Velocity m/s	O ₂ %	Angle of Swirl °
1	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-
Mean	-	-	-	-	-	-	-
AVERAGE	-	4.1	39.7	91	7.66	-	-

Pitot tube velocity constant, K _p	34.97	
Velocity pressure coefficient, C _p	0.839	
Mean Oxygen	21.0	Moisture Content Calculations
Mean CO ₂	0.0	RH, %
Mean Md	28.84	Saturated Vapour Pressure, mmHg
Moisture %	5.0	
Mean Ms	28.30	
Barometric Pressure, kPa	101.4	760.5
Static Pressure, Pa	270	2.02
Absolute Stack Pressure		762.5
Angle of Swirl		0
Lowest Gas Velocity, m/s		6.99
Highest Gas Velocity, m/s		8.34
Mean Velocity, m/s		7.80
Duct Volumetric Flow Rates		
Moist, m ³ /h		4,464
Moist Standards, m ³ /h		3,352
Dry Standard, m ³ /h		3,184

SOURCE TESTING NZ

Preliminary Stack Survey

Source	NCI Internal Lacquer Run 1	
Date	14-Nov-18	
Pitot	ST030	
Number of lines used for survey	1	
Which sampling line was used?	a	

Molecular Weight of Stack Gas

Was CO2 measured in the stack? No

Accurately state fuel for CO2 calculation No Choose: None / Natural Gas / Light Fuel Oil / Heavy Fuel Oil / Coal

Calculated CO2 Value No

O2 Reference? No %

Duct Characteristics

Type	Circular
Depth/Dia	0.45 m
Width	m
Area	0.159 m ²
Port Depth	0 mm

Sampling Lines & Sample Points

Line A						
Traverse Point	ΔPpt mmH ₂ O	ΔPpt Pa	Temp °C	Velocity (corrected for swirl) m/s	O ₂ %	Angle of Swirl °
1	6.9	68.0	44.1	9.34	21.0	0
2	7.3	72.0	44.1	9.61	21.0	0
3	7.4	73.0	44.1	9.68	21.0	0
4	5.0	49.0	44.1	7.93	21.0	0
5	4.9	48.0	44.1	7.85	21.0	0
6	3.9	38.0	44.1	6.98	21.0	0
7	4.5	44.0	44.1	7.51	21.0	0
8	4.6	45.0	44.1	7.60	21.0	0
9	4.5	44.0	44.1	7.51	21.0	0
10	5.3	52.0	44.1	8.17	21.0	0
11	5.5	54.0	44.1	8.32	21.0	0
12	4.7	46.0	44.1	7.68	21.0	0
13						0
14						0
15						0
16						0
Mean	5.4	52.8	44.1	8.18	21.0	

Line B							
Traverse Point	Distance into duct (m)	ΔPpt mmH ₂ O	ΔPpt Pa	Temp °C	Velocity m/s	O ₂ %	Angle of Swirl °
1	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-
Mean	-	-	-	-	-	-	-

AVERAGE	-	5.4	53.3	44	8.22	-	-
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Pitot tube velocity constant, K_p

Velocity pressure coefficient, C_p

Mean Oxygen Moisture Content Calculations

Mean CO₂ RH, %

Mean Md Saturated Vapour Pressure, mmHg

Moisture %

Mean Ms

Barometric Pressure, kPa

Static Pressure, Pa

Absolute Stack Pressure

Angle of Swirl

Lowest Gas Velocity, m/s

Highest Gas Velocity, m/s

Mean Velocity, m/s

****Duct Volumetric Flow Rates****

Moist, m³/h

Moist Standards, m³/h

Dry Standard, m³/h

SOURCE TESTING NZ

Preliminary Stack Survey

Source	NCI Internal Lacquer Run 2	
Date	14-Nov-18	
Pitot	ST030	
Number of lines used for survey	1	
Which sampling line was used?	a	

Molecular Weight of Stack Gas

Was CO2 measured in the stack?	No	Choose: None / Natural Gas / Light Fuel Oil / Heavy Fuel Oil / Coal
Accurately state fuel for CO2 calculation	No	
Calculated CO2 Value	No	
O2 Reference?	No	

Duct Characteristics

Type	Circular	
Depth/Dia	0.45	m
Width		m
Area	0.159	m ²
Port Depth	0	mm

Sampling Lines & Sample Points

Line A						
Traverse Point	ΔP_{pt} mmH ₂ O	ΔP_{pt} Pa	Temp °C	Velocity (corrected for swirl) m/s	O ₂ %	Angle of Swirl °
1	7.3	72.0	36.6	9.50	21.0	0
2	7.4	73.0	36.6	9.56	21.0	0
3	6.2	61.0	36.6	8.74	21.0	0
4	4.7	46.0	36.6	7.59	21.0	0
5	5.2	51.0	36.6	7.99	21.0	0
6	5.5	54.0	36.6	8.23	21.0	0
7	5.0	49.0	36.6	7.83	21.0	0
8	5.2	51.0	36.6	7.99	21.0	0
9	4.8	47.0	36.6	7.67	21.0	0
10	5.6	55.0	36.6	8.30	21.0	0
11	5.0	49.0	36.6	7.83	21.0	0
12	5.6	55.0	36.6	8.30	21.0	0
13						0
14						0
15						0
16						0
Mean	5.6	55.3	36.6	8.30	21.0	

Line B							
Traverse Point	Distance into duct (m)	ΔP_{pt} mmH ₂ O	ΔP_{pt} Pa	Temp °C	Velocity m/s	O ₂ %	Angle of Swirl °
1	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-
Mean	-	-	-	-	-	-	-
AVERAGE	-	5.7	55.9	37	8.34	-	-

Pitot tube velocity constant, K _p	34.97	
Velocity pressure coefficient, C _p	0.839	
Mean Oxygen	21.0	Moisture Content Calculations
Mean CO ₂	0.0	
Mean Md	28.84	Saturated Vapour Pressure, mmHg
Moisture %	5.0	
Mean Ms	28.30	
Barometric Pressure, kPa	101.9	764.3
Static Pressure, Pa	380	2.85
Absolute Stack Pressure		767.1
Angle of Swirl		0
Lowest Gas Velocity, m/s		7.59
Highest Gas Velocity, m/s		9.56
Mean Velocity, m/s		8.30
Duct Volumetric Flow Rates		
Moist, m ³ /h		4,750
Moist Standards, m ³ /h		4,213
Dry Standard, m ³ /h		4,002

SOURCE TESTING NZ

Preliminary Stack Survey

Source	NCI Line 2	
Date	5-Dec-18	
Pitot	ST030	
Number of lines used for survey	1	
Which sampling line was used?	a	

Molecular Weight of Stack Gas

Was CO2 measured in the stack? No

Accurately state fuel for CO2 calculation No Choose: None / Natural Gas / Light Fuel Oil / Heavy Fuel Oil / Coal

Calculated CO2 Value No

O2 Reference? No %

Duct Characteristics

Type	Circular	
Depth/Dia	0.45	m
Width		m
Area	0.159	m ²
Port Depth	0	mm

Sampling Lines & Sample Points

Line A						
Traverse Point	ΔP_{pt} mmH ₂ O	ΔP_{pt} Pa	Temp °C	Velocity (corrected for swirl) m/s	O ₂ %	Angle of Swirl °
1	2.4	24.0	90.7	5.99	21.0	0
2	3.2	31.0	90.7	6.80	21.0	0
3	3.7	36.0	90.7	7.33	21.0	0
4	3.6	35.0	90.7	7.23	21.0	0
5	4.3	42.0	90.7	7.92	21.0	0
6	3.7	36.0	90.7	7.33	21.0	0
7	3.8	37.0	90.7	7.43	21.0	0
8	4.1	40.0	90.7	7.73	21.0	0
9	4.2	41.0	90.7	7.82	21.0	0
10	4.8	47.0	90.7	8.38	21.0	0
11	4.0	39.0	90.7	7.63	21.0	0
12	3.9	38.0	90.7	7.53	21.0	0
13						0
14						0
15						0
16						0
Mean	3.8	37.2	90.7	7.43	21.0	

Line B							
Traverse Point	Distance into duct (m)	ΔP_{pt} mmH ₂ O	ΔP_{pt} Pa	Temp °C	Velocity m/s	O ₂ %	Angle of Swirl °
1	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-
Mean	-	-	-	-	-	-	-

AVERAGE	-	3.8	36.9	91	7.40	-	-
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Pitot tube velocity constant, K_p

Velocity pressure coefficient, C_p

Mean Oxygen Moisture Content Calculations

Mean CO₂ RH, %

Mean Md Saturated Vapour Pressure, mmHg

Moisture %

Mean Ms

Barometric Pressure, kPa

Static Pressure, Pa

Absolute Stack Pressure

Angle of Swirl

Lowest Gas Velocity, m/s

Highest Gas Velocity, m/s

Mean Velocity, m/s

Duct Volumetric Flow Rates

Moist, m³/h

Moist Standards, m³/h

Dry Standard, m³/h

SOURCE TESTING NZ

Preliminary Stack Survey

Source	NCI Internal Lacquer	
Date	5-Dec-18	
Pitot	ST030	
Number of lines used for survey	1	
Which sampling line was used?	a	

Molecular Weight of Stack Gas

Was CO2 measured in the stack? No

Accurately state fuel for CO2 calculation No Choose: None / Natural Gas / Light Fuel Oil / Heavy Fuel Oil / Coal

Calculated CO2 Value No

O2 Reference? No %

Duct Characteristics

Type	Circular
Depth/Dia	0.45 m
Width	m
Area	0.159 m ²
Port Depth	0 mm

Sampling Lines & Sample Points

Line A						
Traverse Point	ΔPpt mmH ₂ O	ΔPpt Pa	Temp °C	Velocity (corrected for swirl) m/s	O ₂ %	Angle of Swirl °
1	6.4	63.0	34.3	8.91	21.0	0
2	5.7	56.0	34.3	8.40	21.0	0
3	6.1	60.0	34.3	8.70	21.0	0
4	5.4	53.0	34.3	8.17	21.0	0
5	5.7	56.0	34.3	8.40	21.0	0
6	4.0	39.0	34.3	7.01	21.0	0
7	4.7	46.0	34.3	7.61	21.0	0
8	4.2	41.0	34.3	7.19	21.0	0
9	4.4	43.0	34.3	7.36	21.0	0
10	4.1	40.0	34.3	7.10	21.0	0
11	3.9	38.0	34.3	6.92	21.0	0
12	4.7	46.0	34.3	7.61	21.0	0
13						0
14						0
15						0
16						0
Mean	4.9	48.4	34.3	7.78	21.0	

Line B							
Traverse Point	Distance into duct (m)	ΔPpt mmH ₂ O	ΔPpt Pa	Temp °C	Velocity m/s	O ₂ %	Angle of Swirl °
1	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-
Mean	-	-	-	-	-	-	-

AVERAGE	-	5.1	49.7	34	7.89	-	-
---------	---	-----	------	----	------	---	---

Pitot tube velocity constant, K_p

Velocity pressure coefficient, C_p

Mean Oxygen Moisture Content Calculations

Mean CO₂ RH, %

Mean Md Saturated Vapour Pressure, mmHg

Moisture %

Mean Ms

Barometric Pressure, kPa	100.6	754.5
Static Pressure, Pa	310	2.32
Absolute Stack Pressure		756.8
Angle of Swirl		0

Lowest Gas Velocity, m/s

Highest Gas Velocity, m/s

Mean Velocity, m/s

Duct Volumetric Flow Rates

Moist, m ³ /h	4.457
Moist Standards, m ³ /h	3.931
Dry Standard, m ³ /h	3.735

SOURCE TESTING NZ

Appendix C Raw Analytical Report

- This appendix includes 65pages including the cover.

Watercare

Laboratory Services

Sensory Evaluation Unit

Olfactometry Results (Forced Choice)

Client: Source Testing New Zealand Ltd.
Contact: Matthew Newby
Address: 39 Cedar Street, Maungaraki 5010
Date Received: 06/12/2018
Report Date: 14/12/2018
Report Number: rp18037s

Odour concentration analysed in accordance with AS/NZS 4323.3:2001: "Determination of odour concentration by dynamic olfactometry" using Olfasense – TO-Evolution. Calibration set by Watercare on November 2018.

Odour character analysed in accordance with Watercare Services Ltd: Method EM02.159 Section 4.1.9.

Panel Threshold for measurement (AS/NZS 4323.3:2001)¹:

Panellist	Average Threshold (ppb)	Standard Deviation	Acceptable Range	Qualified
Panellist 1	47.6	1.47	Threshold range: 20-80ppb Standard Deviation: ≤ 2.3	Yes
Panellist 2	67.4	1.87		Yes
Panellist 3	46.2	1.53		Yes
Panellist 4	35.2	1.28		Yes

¹Average taken from 20 individual threshold estimates (ITEs) for reference gas (n-butanol 60ppm, ID AS0956).

Environmental Conditions for measurement (AS/NZS 4323.3:2001 Section 9.6)²:

Temperature Range	Ventilation	Environment odourless and pleasant	Noise or light Interference
20.6 °C – 21.2 °C	65.9 – 76.8 m ³ /hr/person	Yes	No

²Section 9.6 (AS/NZS 4323.3:2001) states temperature fluctuations during the measuring process shall be less than Minimum ventilation rate of 4.4m³/ hour per person.

Actual Sampling Conditions:

Lab Reference	Description	Temperature (°C)
181206-01	ST0788/21 Line 2 Odour Sample 1	n/a
181206-02	ST0788/22 Line 2 Odour Sample 2	n/a
181206-03	ST0788/23 Internal Lacquer Odour Sample 1	n/a
181206-04	ST0788/24 Internal Lacquer Odour Sample 2	n/a

Laboratory Services – Watercare Services Limited
 52 Aintree Avenue, Airport Oaks, Mangere, Manukau 2022, New Zealand
 PO Box 107028 Airport Oaks, Manukau 2154, New Zealand
 Telephone +64 9 539 7800 Facsimile +64 9 539 7620
www.watercarelabs.co.nz

Odour Concentration (AS/NZS 4323.3:2001)³:

Sample Date & Time		Analysis Date & Time		Description	Results (OU)	Lab. Reference	Sampling Method
05/12/2018	n/a	06/12/2018	11:34	ST0788/21 Line 2 Odour Sample 1	3,324	181206-01	Point
05/12/2018	n/a	06/12/2018	11:54	ST0788/22 Line 2 Odour Sample 2	4,625	181206-02	Point
05/12/2018	n/a	06/12/2018	12:09	ST0788/23 Internal Lacquer Odour Sample 1	5,325	181206-03	Point
05/12/2018	n/a	06/12/2018	12:23	ST0788/24 Internal Lacquer Odour Sample 2	4,625	181206-04	Point

³ < LOD is <23 OU, the lowest detectable odour concentration that can be determined with 95% statistical confidence.

Odour Character (Watercare Services Ltd method EM02.159, section 4.1.9):

Laboratory Reference	Description of Odour
181206-01	Strong solvent
181206-02	Strong solvent
181206-03	Very strong solvent
181206-04	Very strong solvent/diesel

Comments:

1. A minimum of four panellists were presented with three runs.
2. All samples retrospectively screened.
3. For Description of Odour, the original sample was presented to the panellists.
4. Pre-dilution was not required prior to analysis.
5. All samples were collected by Source Testing NZ Ltd.



Nina Gasson
Author



David Steiner
Peer Reviewer



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Certificate of Analysis

Client:	Source Testing NZ Limited	Lab No:	2073300	SPv1
Contact:	Matthew Newby PO Box 32017 Maungaraki Lower Hutt 5050	Date Received:	01-Nov-2018	
		Date Reported:	29-Nov-2018	
		Quote No:	95637	
		Order No:		
		Client Reference:	ST0788	
		Submitted By:	Matthew Newby	

Sample Type: 400/200 mg CSC tube SKC 226-09

Sample Name:	ST0788/14 Line 2 Alcohols Spike Run 1 [Alcohols Spike 1] 13-Nov-2018	ST0788/16 Line 2 Alcohols Spike Run 2 [Alcohols Spike 2] 13-Nov-2018	ST0788/18 Internal Lacquer Alcohols Spike Run 1 [Alcohols Spike 3] 14-Nov-2018	ST0788/20 Internal Lacquer Alcohols Spike Run 2 [Alcohols Spike 4] 14-Nov-2018	Travel Blank
Lab Number:	2073300.1	2073300.2	2073300.3	2073300.4	2073300.7

1-Methoxy-2-propanol in large charcoal tubes by GC-FID/FID						
1-Methoxy-2-propanol front*	µg/sample	153	1,250	700	860	< 40
1-Methoxy-2-propanol back*	µg/sample	960	< 20	< 20	< 20	< 20
2-butoxyethanol in large charcoal tubes by GC-FID/FID						
2-Butoxyethanol front	µg/sample	100	420	3,900	2,600	< 8
2-Butoxyethanol back	µg/sample	250	< 4	< 4	< 4	< 4
n-Butanol in large charcoal tubes by GC-FID/FID (DCM:MeOH)						
n-Butanol front*	µg/sample	197	4,500	1,720	2,100	< 8
n-Butanol back*	µg/sample	4,000	< 4	< 4	< 4	< 4

Sample Name:	Lab (rig) Blank	ST0788/13 Line 2 Alcohols Sample Run 1 13-Nov-2018	ST0788/15 Line 2 Alcohols Sample Run 2 13-Nov-2018	ST0788/17 Internal Lacquer Alcohols Sample Run 1 14-Nov-2018	ST0788/19 Internal Lacquer Alcohols Sample Run 2 14-Nov-2018
Lab Number:	2073300.9	2073300.11	2073300.12	2073300.13	2073300.14

1-Methoxy-2-propanol in large charcoal tubes by GC-FID/FID						
1-Methoxy-2-propanol front*	µg/sample	< 40	990	1,050	500	710
1-Methoxy-2-propanol back*	µg/sample	< 20	< 20	< 20	< 20	< 20
2-butoxyethanol in large charcoal tubes by GC-FID/FID						
2-Butoxyethanol front	µg/sample	< 8	300	280	3,100	2,300
2-Butoxyethanol back	µg/sample	< 4	< 4	< 4	< 4	< 4
n-Butanol in large charcoal tubes by GC-FID/FID (DCM:MeOH)						
n-Butanol front*	µg/sample	< 8	3,900	3,900	1,270	1,900
n-Butanol back*	µg/sample	< 4	< 4	< 4	< 4	< 4

Sample Type: 400/200 mg CSC SKC 226-09 Desorption Efficiency

Sample Name:	Travel Spike	Lab Spike			
Lab Number:	2073300.8	2073300.10			
1-Methoxy-2-propanol in large charcoal tubes by GC-FID/FID DE					
1-Methoxypropan-2-ol front*	% recovery	135	130	-	-
1-Methoxypropan-2-ol back*	% recovery	< 1	< 1	-	-
2-butoxyethanol in large charcoal tubes by GC-FID/FID DE					
2-Butoxyethanol front*	% recovery	105	96	-	-
2-Butoxyethanol back*	% recovery	< 1	< 1	-	-



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Sample Type: 400/200 mg CSC SKC 226-09 Desorption Efficiency						
Sample Name:		Travel Spike	Lab Spike			
Lab Number:		2073300.8	2073300.10			
n-Butanol in large charcoal tubes by GC-FID/FID DE						
n-Butanol front*	% recovery	107	98	-	-	-
n-Butanol back*	% recovery	< 1	< 1	-	-	-

Analyst's Comments

1-Methoxy-2-propanol, 2-butoxyethanol and n-butanol were spiked at 104, 104 and 105 µg per sample respectively.

The chromatographic data generated from these samples was highly complex with a large number of peaks present and some co-eluting with the target compounds on the primary and/or confirmation signals. Data for 1-methoxy-2-propanol has been reported from the non-polar (BP-1) separation due to a co-elution on the polar (BP-20) separation. The peak shape of 1-methoxy-2-propanol on the non-polar (BP-1) separation is poor and tailing resulting in an elevated detection limit and increased uncertainty of measurement for this compound. Please consider this when interpreting the results for 1-methoxy-2-propanol.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively clean matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. Unless otherwise indicated, analyses were performed at Hill Laboratories, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: 400/200 mg CSC tube SKC 226-09			
Test	Method Description	Default Detection Limit	Sample No
1-Methoxy-2-propanol in large charcoal tubes by GC-FID/FID*	Desorption with 95:5 DCM:MeOH and sonication, analysis by dual column GC-FID/FID, NIOSH 1403 (modified).	4 - 8 µg/sample	1-4, 7, 9, 11-14
2-butoxyethanol in large charcoal tubes by GC-FID/FID	Desorption with 95:5 DCM:MeOH and sonication, analysis by dual column GC-FID/FID,	4 - 8 µg/sample	1-4, 7, 9, 11-14
n-Butanol in large charcoal tubes by GC-FID/FID (DCM:MeOH)*	Desorption with 95:5 DCM:MeOH and sonication, analysis by dual column GC-FID/FID,	4 - 8 µg/sample	1-4, 7, 9, 11-14
DCM:MeOH Miscellaneous Solvents in large tubes by GC-FID/FID*	Break into fractions, desorption with 95:5 DCM:MeOH and sonication, analysis by dual column GC-FID/FID,.	-	1-4, 7-14

Sample Type: 400/200 mg CSC SKC 226-09 Desorption Efficiency			
Test	Method Description	Default Detection Limit	Sample No
1-Methoxy-2-propanol in large charcoal tubes by GC-FID/FID DE*	Break into fractions, desorption with 95:5 DCM:MeOH and sonication, analysis by dual column GC-FID/FID,	1 % recovery	8, 10
2-butoxyethanol in large charcoal tubes by GC-FID/FID DE*	Break into fractions, desorption with 95:5 DCM:MeOH and sonication, analysis by dual column GC-FID/FID,	1 % recovery	8, 10
n-Butanol in large charcoal tubes by GC-FID/FID DE*	Break into fractions, desorption with 95:5 DCM:MeOH and sonication, analysis by dual column GC-FID/FID,	1 % recovery	8, 10

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Samples are held at the laboratory after reporting for a length of time depending on the preservation used and the stability of the analytes being tested. Once the storage period is completed the samples are discarded unless otherwise advised by the client.

This certificate of analysis must not be reproduced, except in full, without the written consent of the signatory.



Graham Corban MSc Tech (Hons)
Client Services Manager - Environmental



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Certificate of Analysis

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Client:	Source Testing NZ Limited	Lab No:	2078286	SPvt
Contact:	Matthew Newby PO Box 32017 Maungaraki Lower Hutt 5050	Date Received:	09-Nov-2018	
		Date Reported:	29-Nov-2018	
		Quote No:	95637	
		Order No:		
		Client Reference:	ST0788	
		Submitted By:	Matthew Newby	

Sample Type: 400/200 mg CSC tube SKC 226-09

Sample Name:	ST0788/06 Line 2 VOC Spike Run 1 [VOC Spike 1] 13-Nov-2018	ST0788/08 Line 2 VOC Spike Run 2 [VOC Spike 2] 13-Nov-2018	ST0788/10 Internal Laquer VOC Spike Run 1 [VOC Spike 3] 14-Nov-2018	ST0788/12 Internal Laquer VOC Spike Run 2 [VOC Spike 4] 14-Nov-2018	Travel Blank
Lab Number:	2078286.1	2078286.2	2078286.3	2078286.4	2078286.7

Individual Tests	Report	Library Search Report Attached	Library Search Report Attached	Library Search Report Attached	Library Search Report Attached	-
VOC Library Search						

TPH suite from large charcoal tubes (screen)						
C7-C9 front	µg/sample	9,400	11,100	6,500	6,400	< 12
C7-C9 back	µg/sample	< 6	< 6	< 6	< 6	< 6
C10-C11 front	µg/sample	13,200	13,400	2,200	1,520	< 16
C10-C11 back	µg/sample	< 8	< 8	< 8	< 8	< 8
C12-C14 front	µg/sample	5,800	6,700	420	280	< 16
C12-C14 back	µg/sample	< 8	< 8	< 8	< 8	< 8
C15-C20 front	µg/sample	790	820	50	45	< 16
C15-C20 back	µg/sample	< 8	< 8	< 8	< 8	< 8
C21-C25 front	µg/sample	27	22	< 16	< 16	< 16
C21-C25 back	µg/sample	< 8	< 8	< 8	< 8	< 8
C7-C25 front	µg/sample	29,000	32,000	9,200	8,300	< 76
C7-C25 back	µg/sample	< 38	< 38	< 38	< 38	< 38

VOC suite from large charcoal tubes (screen)						
Chloroform front	µg/sample	19	20	20	19	< 4
Chloroform back	µg/sample	< 2	< 2	< 2	< 2	< 2
1,1,1-Trichloroethane front	µg/sample	19.0	19.0	19.8	19.2	< 0.4
1,1,1-Trichloroethane back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,2-Dichloroethane front	µg/sample	19.7	19.7	19.9	19.2	< 0.4
1,2-Dichloroethane back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Carbon tetrachloride front	µg/sample	20	21	20	19.7	< 0.4
Carbon tetrachloride back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,1-Dichloropropene front	µg/sample	21	21	21	20	< 0.4
1,1-Dichloropropene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Benzene front	µg/sample	19.5	19.7	19.7	19.3	< 0.8
Benzene back	µg/sample	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Trichloroethylene front	µg/sample	36	36	37	36	< 0.4
Trichloroethylene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,2-Dichloropropane front	µg/sample	21	21	21	21	< 0.4
1,2-Dichloropropane back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Dibromomethane front	µg/sample	20	19.9	19.8	19.5	< 0.4
Dibromomethane back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Bromodichloromethane front	µg/sample	21	21	20	20	< 0.4
Bromodichloromethane back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
cis-1,3-Dichloropropene front	µg/sample	20	20	21	20	< 0.4
cis-1,3-Dichloropropene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

Lab No: 2078286 v 1

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Sample Type: 400/200 mg CSC tube SKC 226-09						
Sample Name:	ST0788/06 Line 2 VOC Spike Run 1 [VOC Spike 1] 13-Nov-2018	ST0788/08 Line 2 VOC Spike Run 2 [VOC Spike 2] 13-Nov-2018	ST0788/10 Internal Laquer VOC Spike Run 1 [VOC Spike 3] 14-Nov-2018	ST0788/12 Internal Laquer VOC Spike Run 2 [VOC Spike 4] 14-Nov-2018	Travel Blank	
Lab Number:	2078286.1	2078286.2	2078286.3	2078286.4	2078286.7	
VOC suite from large charcoal tubes (screen)						
Toluene front	µg/sample	28	29	34	35	< 0.4
Toluene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
trans-1,3-Dichloropropene front	µg/sample	20	20	20	19.9	< 0.4
trans-1,3-Dichloropropene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,1,2-Trichloroethane front	µg/sample	20	20	19.9	19.9	< 0.4
1,1,2-Trichloroethane back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,3-Dichloropropane front	µg/sample	21	21	21	21	< 0.4
1,3-Dichloropropane back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Dibromochloromethane front	µg/sample	21	21	20	19.8	< 0.4
Dibromochloromethane back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Tetrachloroethylene (Perchloroethylene) front	µg/sample	21	21	21	21	< 0.4
Tetrachloroethylene (Perchloroethylene) back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,2-Dibromoethane (ethylene dibromide) front	µg/sample	20	20	20	20	< 0.4
1,2-Dibromoethane (ethylene dibromide) back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chlorobenzene front	µg/sample	20	20	20	19.5	< 0.4
Chlorobenzene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,1,1,2-Tetrachloroethane front	µg/sample	20	21	21	20	< 0.4
1,1,1,2-Tetrachloroethane back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Ethylbenzene front	µg/sample	1,610	1,810	1,460	1,750	< 0.4
Ethylbenzene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
m-, p-Xylene front	µg/sample	890	970	790	860	< 0.4
m-, p-Xylene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene front	µg/sample	290	310	270	260	< 0.4
o-Xylene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Styrene front	µg/sample	21	21	15.1	12.5	< 0.4
Styrene back	µg/sample	< 0.2	0.2	< 0.2	< 0.2	< 0.2
Bromoform (tribromomethane) front	µg/sample	21	21	21	20	< 0.4
Bromoform (tribromomethane) back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
iso-Propylbenzene (Cumene) front	µg/sample	26	26	32	29	< 0.4
iso-Propylbenzene (Cumene) back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,1,2,2-Tetrachloroethane front	µg/sample	2.3	2.1	< 0.4	1.6	< 0.4
1,1,2,2-Tetrachloroethane back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,2,3-Trichloropropane front	µg/sample	21	21	21	20	< 0.4
1,2,3-Trichloropropane back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Bromobenzene front	µg/sample	21	20	20	19.8	< 0.4
Bromobenzene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2-Chlorotoluene front	µg/sample	40	38	37	31	< 0.4
2-Chlorotoluene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
n-Propylbenzene front	µg/sample	50	47	51	39	< 0.4
n-Propylbenzene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
4-Chlorotoluene front	µg/sample	21	20	21	20	< 0.4
4-Chlorotoluene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,3,5-Trimethylbenzene front	µg/sample	109	104	82	60	< 0.4
1,3,5-Trimethylbenzene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
tert-Butylbenzene front	µg/sample	22	21	22	22	< 0.4
tert-Butylbenzene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,2,4-Trimethylbenzene front	µg/sample	1,260	1,190	330	220	< 0.4
1,2,4-Trimethylbenzene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,3-Dichlorobenzene front	µg/sample	20	19.6	19.5	18.6	< 0.4
1,3-Dichlorobenzene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

Lab No: 2078286 v 1

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Sample Type: 400/200 mg CSC tube SKC 226-09						
Sample Name:	ST0788/06 Line 2 VOC Spike Run 1 [VOC Spike 1] 13-Nov-2018	ST0788/08 Line 2 VOC Spike Run 2 [VOC Spike 2] 13-Nov-2018	ST0788/10 Internal Laquer VOC Spike Run 1 [VOC Spike 3] 14-Nov-2018	ST0788/12 Internal Laquer VOC Spike Run 2 [VOC Spike 4] 14-Nov-2018	Travel Blank	
Lab Number:	2078286.1	2078286.2	2078286.3	2078286.4	2078286.7	
VOC suite from large charcoal tubes (screen)						
sec-Butylbenzene front	µg/sample	65	62	27	25	< 0.4
sec-Butylbenzene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,4-Dichlorobenzene front	µg/sample	20	19.4	19.0	18.4	< 0.4
1,4-Dichlorobenzene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
4-iso-Propyltoluene (p-Cymene) front	µg/sample	71	67	29	26	< 0.4
4-iso-Propyltoluene (p-Cymene) back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,2-Dichlorobenzene front	µg/sample	19.2	18.8	18.4	17.5	< 0.4
1,2-Dichlorobenzene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
n-Butylbenzene front	µg/sample	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
n-Butylbenzene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,2-Dibromo-3-chloropropane front	µg/sample	< 0.4	< 0.4	25	22	< 0.4
1,2-Dibromo-3-chloropropane back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,2,4-Trichlorobenzene front	µg/sample	19.4	18.6	17.3	16.2	< 0.4
1,2,4-Trichlorobenzene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Naphthalene front	µg/sample	330	310	36	24	< 0.4
Naphthalene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,2,3-Trichlorobenzene front	µg/sample	17.2	16.6	15.3	14.4	< 0.4
1,2,3-Trichlorobenzene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Hexachlorobutadiene front	µg/sample	22	22	21	21	< 0.4
Hexachlorobutadiene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
MIBK (methylisobutyl ketone) front	µg/sample	< 4	< 4	< 4	< 4	< 4
MIBK (methylisobutyl ketone) back	µg/sample	< 2	< 2	< 2	< 2	< 2
Sample Name:	Lab (rig) Blank	ST0788/05 Line 2 VOC Sample Run 1 13-Nov-2018	ST0788/07 Line 2 VOC Sample Run 2 13-Nov-2018	ST0788/09 Internal Laquer VOC Sample Run 1 14-Nov-2018	ST0788/11 Internal Laquer VOC Sample Run 2 14-Nov-2018	
Lab Number:	2078286.9	2078286.11	2078286.12	2078286.13	2078286.14	
Individual Tests						
VOC Library Search	Report	-	Library Search Report Attached	Library Search Report Attached	Library Search Report Attached	Library Search Report Attached
TPH suite from large charcoal tubes (screen)						
C7-C9 front	µg/sample	< 12	9,600	11,300	6,200	6,700
C7-C9 back	µg/sample	< 6	< 6	< 6	< 6	< 6
C10-C11 front	µg/sample	< 16	13,300	13,400	1,870	1,370
C10-C11 back	µg/sample	< 8	< 8	< 8	< 8	< 8
C12-C14 front	µg/sample	< 16	7,000	7,500	380	270
C12-C14 back	µg/sample	< 8	< 8	< 8	< 8	< 8
C15-C20 front	µg/sample	< 16	780	840	69	47
C15-C20 back	µg/sample	< 8	< 8	< 8	< 8	< 8
C21-C25 front	µg/sample	< 16	19	39	< 16	< 16
C21-C25 back	µg/sample	< 8	< 8	< 8	< 8	< 8
C7-C25 front	µg/sample	< 76	31,000	33,000	8,500	8,400
C7-C25 back	µg/sample	< 38	< 38	< 38	< 38	< 38
VOC suite from large charcoal tubes (screen)						
Chloroform front	µg/sample	< 4	< 4	< 4	< 4	< 4
Chloroform back	µg/sample	< 2	< 2	< 2	< 2	< 2
1,1,1-Trichloroethane front	µg/sample	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
1,1,1-Trichloroethane back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,2-Dichloroethane front	µg/sample	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
1,2-Dichloroethane back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Carbon tetrachloride front	µg/sample	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Carbon tetrachloride back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

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Sample Type: 400/200 mg CSC tube SKC 226-09						
Sample Name:	Lab (rig) Blank	ST0788/05 Line 2 VOC Sample Run 1 13-Nov-2018	ST0788/07 Line 2 VOC Sample Run 2 13-Nov-2018	ST0788/09 Internal Laquer VOC Sample Run 1 14-Nov-2018	ST0788/11 Internal Laquer VOC Sample Run 2 14-Nov-2018	
Lab Number:	2078286.9	2078286.11	2078286.12	2078286.13	2078286.14	
VOC suite from large charcoal tubes (screen)						
1,1-Dichloropropene front	µg/sample	< 0.4	< 0.4	< 0.4	< 0.4	
1,1-Dichloropropene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	
Benzene front	µg/sample	< 0.8	< 0.8	< 0.8	< 0.8	
Benzene back	µg/sample	< 0.4	< 0.4	< 0.4	< 0.4	
Trichloroethylene front	µg/sample	< 0.4	< 0.4	< 0.4	< 0.4	
Trichloroethylene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	
1,2-Dichloropropane front	µg/sample	< 0.4	< 0.4	< 0.4	< 0.4	
1,2-Dichloropropane back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	
Dibromomethane front	µg/sample	< 0.4	< 0.4	< 0.4	< 0.4	
Dibromomethane back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	
Bromodichloromethane front	µg/sample	< 0.4	< 0.4	< 0.4	< 0.4	
Bromodichloromethane back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	
cis-1,3-Dichloropropene front	µg/sample	< 0.4	< 0.4	< 0.4	< 0.4	
cis-1,3-Dichloropropene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	
Toluene front	µg/sample	< 0.4	7.6	8.7	13.0	16.3
Toluene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
trans-1,3-Dichloropropene front	µg/sample	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
trans-1,3-Dichloropropene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,1,2-Trichloroethane front	µg/sample	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
1,1,2-Trichloroethane back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,3-Dichloropropane front	µg/sample	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
1,3-Dichloropropane back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Dibromochloromethane front	µg/sample	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Dibromochloromethane back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Tetrachloroethylene (Perchloroethylene) front	µg/sample	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Tetrachloroethylene (Perchloroethylene) back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,2-Dibromoethane (ethylene dibromide) front	µg/sample	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
1,2-Dibromoethane (ethylene dibromide) back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chlorobenzene front	µg/sample	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Chlorobenzene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,1,1,2-Tetrachloroethane front	µg/sample	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
1,1,1,2-Tetrachloroethane back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Ethylbenzene front	µg/sample	< 0.4	1,590	1,900	1,450	1,830
Ethylbenzene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
m-, p-Xylene front	µg/sample	< 0.4	850	980	770	870
m-, p-Xylene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene front	µg/sample	< 0.4	280	330	230	270
o-Xylene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Styrene front	µg/sample	< 0.4	2.2	2.8	< 0.4	< 0.4
Styrene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Bromoform (tribromomethane) front	µg/sample	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Bromoform (tribromomethane) back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
iso-Propylbenzene (Cumene) front	µg/sample	< 0.4	4.8	5.2	10.4	8.8
iso-Propylbenzene (Cumene) back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,1,2,2-Tetrachloroethane front	µg/sample	< 0.4	< 0.4	0.5	< 0.4	< 0.4
1,1,2,2-Tetrachloroethane back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,2,3-Trichloropropane front	µg/sample	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
1,2,3-Trichloropropane back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Bromobenzene front	µg/sample	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Bromobenzene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2-Chlorotoluene front	µg/sample	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4

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Sample Type: 400/200 mg CSC tube SKC 226-09						
Sample Name:	Lab (rig) Blank	ST0788/05 Line 2 VOC Sample Run 1 13-Nov-2018	ST0788/07 Line 2 VOC Sample Run 2 13-Nov-2018	ST0788/09 Internal Laquer VOC Sample Run 1 14-Nov-2018	ST0788/11 Internal Laquer VOC Sample Run 2 14-Nov-2018	
Lab Number:	2078286.9	2078286.11	2078286.12	2078286.13	2078286.14	
VOC suite from large charcoal tubes (screen)						
2-Chlorotoluene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
n-Propylbenzene front	µg/sample	< 0.4	32	32	30	23
n-Propylbenzene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
4-Chlorotoluene front	µg/sample	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
4-Chlorotoluene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,3,5-Trimethylbenzene front	µg/sample	< 0.4	92	92	58	45
1,3,5-Trimethylbenzene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
tert-Butylbenzene front	µg/sample	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
tert-Butylbenzene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,2,4-Trimethylbenzene front	µg/sample	< 0.4	1,210	1,240	290	220
1,2,4-Trimethylbenzene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,3-Dichlorobenzene front	µg/sample	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
1,3-Dichlorobenzene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
sec-Butylbenzene front	µg/sample	< 0.4	46	46	4.9	3.9
sec-Butylbenzene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,4-Dichlorobenzene front	µg/sample	< 0.4	< 0.4	< 0.4	< 0.4	0.6
1,4-Dichlorobenzene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
4-iso-Propyltoluene (p-Cymene) front	µg/sample	< 0.4	52	53	7.1	5.5
4-iso-Propyltoluene (p-Cymene) back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,2-Dichlorobenzene front	µg/sample	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
1,2-Dichlorobenzene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
n-Butylbenzene front	µg/sample	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
n-Butylbenzene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,2-Dibromo-3-chloropropane front	µg/sample	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
1,2-Dibromo-3-chloropropane back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,2,4-Trichlorobenzene front	µg/sample	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
1,2,4-Trichlorobenzene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Naphthalene front	µg/sample	< 0.4	320	340	31	21
Naphthalene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,2,3-Trichlorobenzene front	µg/sample	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
1,2,3-Trichlorobenzene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Hexachlorobutadiene front	µg/sample	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Hexachlorobutadiene back	µg/sample	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
MIBK (methylisobutyl ketone) front	µg/sample	< 4	< 4	< 4	< 4	< 4
MIBK (methylisobutyl ketone) back	µg/sample	< 2	< 2	< 2	< 2	< 2

Sample Type: 400/200 mg CSC SKC 226-09 Desorption Efficiency						
Sample Name:		Travel Spike	Lab Spike			
Lab Number:	2078286.8	2078286.10				
Desorption efficiency tube for VOC analysis from cASTL						
Chloroform front	% recovery	100	87	-	-	-
Chloroform back	% recovery	< 1	< 1	-	-	-
1,1,1-Trichloroethane front	% recovery	102	95	-	-	-
1,1,1-Trichloroethane back	% recovery	< 1	< 1	-	-	-
1,2-Dichloroethane front	% recovery	99	81	-	-	-
1,2-Dichloroethane back	% recovery	< 1	< 1	-	-	-
Carbon tetrachloride front	% recovery	99	109	-	-	-
Carbon tetrachloride back	% recovery	< 1	< 1	-	-	-
1,1-Dichloropropene front	% recovery	102	111	-	-	-
1,1-Dichloropropene back	% recovery	< 1	< 1	-	-	-
Benzene front	% recovery	95	105	-	-	-
Benzene back	% recovery	< 1	< 1	-	-	-

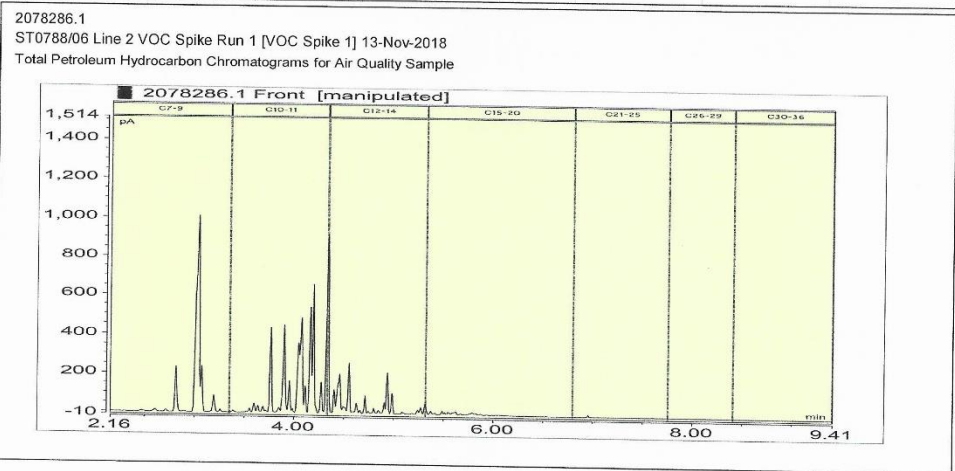
Lab No: 2078286 v 1

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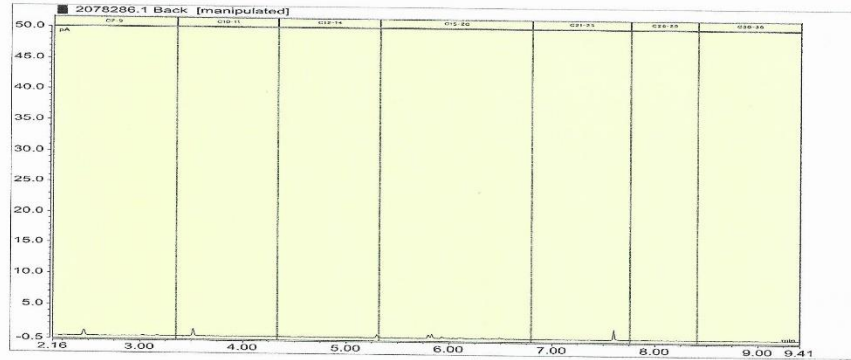
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Sample Type: 400/200 mg CSC SKC 226-09 Desorption Efficiency						
Sample Name:		Travel Spike	Lab Spike			
Lab Number:		2078286.8	2078286.10			
Desorption efficiency tube for VOC analysis from cASTL						
Trichloroethylene front	% recovery	183	157	-	-	-
Trichloroethylene back	% recovery	< 1	< 1	-	-	-
1,2-Dichloropropane front	% recovery	103	112	-	-	-
1,2-Dichloropropane back	% recovery	< 1	< 1	-	-	-
Dibromomethane front	% recovery	96	108	-	-	-
Dibromomethane back	% recovery	< 1	< 1	-	-	-
Bromodichloromethane front	% recovery	99	109	-	-	-
Bromodichloromethane back	% recovery	< 1	< 1	-	-	-
cis-1,3-Dichloropropene front	% recovery	100	111	-	-	-
cis-1,3-Dichloropropene back	% recovery	< 1	< 1	-	-	-
Toluene front	% recovery	100	111	-	-	-
Toluene back	% recovery	< 1	< 1	-	-	-
trans-1,3-Dichloropropene front	% recovery	99	109	-	-	-
trans-1,3-Dichloropropene back	% recovery	< 1	< 1	-	-	-
1,1,2-Trichloroethane front	% recovery	98	111	-	-	-
1,1,2-Trichloroethane back	% recovery	< 1	< 1	-	-	-
1,3-Dichloropropane front	% recovery	107	126	-	-	-
1,3-Dichloropropane back	% recovery	< 1	< 1	-	-	-
Dibromochloromethane front	% recovery	100	112	-	-	-
Dibromochloromethane back	% recovery	< 1	< 1	-	-	-
Tetrachloroethylene (Perchloroethylene) front	% recovery	105	116	-	-	-
Tetrachloroethylene (Perchloroethylene) back	% recovery	< 1	< 1	-	-	-
1,2-Dibromoethane (ethylene dibromide) front	% recovery	100	112	-	-	-
1,2-Dibromoethane (ethylene dibromide) back	% recovery	< 1	< 1	-	-	-
Chlorobenzene front	% recovery	94	106	-	-	-
Chlorobenzene back	% recovery	< 1	< 1	-	-	-
1,1,1,2-Tetrachloroethane front	% recovery	101	113	-	-	-
1,1,1,2-Tetrachloroethane back	% recovery	< 1	< 1	-	-	-
Ethylbenzene front	% recovery	103	113	-	-	-
Ethylbenzene back	% recovery	< 1	< 1	-	-	-
m-, p-Xylene front	% recovery	101	113	-	-	-
m-, p-Xylene back	% recovery	< 1	< 1	-	-	-
o-Xylene front	% recovery	95	107	-	-	-
o-Xylene back	% recovery	< 1	< 1	-	-	-
Styrene front	% recovery	66	70	-	-	-
Styrene back	% recovery	1	< 1	-	-	-
Bromoform (tribromomethane) front	% recovery	99	111	-	-	-
Bromoform (tribromomethane) back	% recovery	< 1	< 1	-	-	-
iso-Propylbenzene (Cumene) front	% recovery	105	115	-	-	-
iso-Propylbenzene (Cumene) back	% recovery	< 1	< 1	-	-	-
1,1,2,2-Tetrachloroethane front	% recovery	5	58	-	-	-
1,1,2,2-Tetrachloroethane back	% recovery	< 1	< 1	-	-	-
1,2,3-Trichloropropane front	% recovery	100	111	-	-	-
1,2,3-Trichloropropane back	% recovery	< 1	< 1	-	-	-
Bromobenzene front	% recovery	95	108	-	-	-
Bromobenzene back	% recovery	< 1	< 1	-	-	-
2-Chlorotoluene front	% recovery	91	99	-	-	-
2-Chlorotoluene back	% recovery	< 1	< 1	-	-	-
n-Propylbenzene front	% recovery	102	113	-	-	-
n-Propylbenzene back	% recovery	< 1	< 1	-	-	-
4-Chlorotoluene front	% recovery	95	114	-	-	-

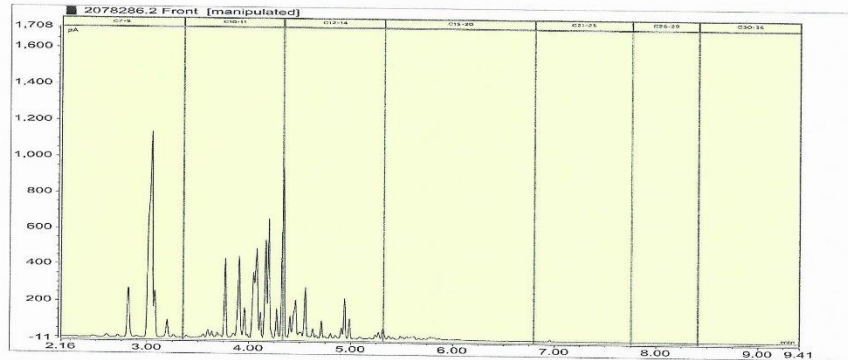
Sample Type: 400/200 mg CSC SKC 226-09 Desorption Efficiency						
Sample Name:		Travel Spike	Lab Spike			
Lab Number:		2078286.8	2078286.10			
Desorption efficiency tube for VOC analysis from cASTL						
4-Chlorotoluene back	% recovery	< 1	< 1	-	-	-
1,3,5-Trimethylbenzene front	% recovery	102	113	-	-	-
Desorption Efficiency						
1,3,5-Trimethylbenzene back	% recovery	< 1	< 1	-	-	-
Desorption Efficiency						
tert-Butylbenzene front	% recovery	107	117	-	-	-
tert-Butylbenzene back	% recovery	< 1	< 1	-	-	-
1,2,4-Trimethylbenzene front	% recovery	96	108	-	-	-
Desorption Efficiency						
1,2,4-Trimethylbenzene back	% recovery	< 1	< 1	-	-	-
Desorption Efficiency						
1,3-Dichlorobenzene front	% recovery	90	102	-	-	-
1,3-Dichlorobenzene back	% recovery	< 1	< 1	-	-	-
sec-Butylbenzene front	% recovery	106	116	-	-	-
sec-Butylbenzene back	% recovery	< 1	< 1	-	-	-
1,4-Dichlorobenzene front	% recovery	86	97	-	-	-
1,4-Dichlorobenzene back	% recovery	< 1	< 1	-	-	-
4-iso-Propyltoluene (p-Cymene) front	% recovery	105	116	-	-	-
4-iso-Propyltoluene (p-Cymene) back	% recovery	< 1	< 1	-	-	-
1,2-Dichlorobenzene front	% recovery	83	94	-	-	-
1,2-Dichlorobenzene back	% recovery	< 1	< 1	-	-	-
n-Butylbenzene front	% recovery	100	111	-	-	-
n-Butylbenzene back	% recovery	< 1	< 1	-	-	-
1,2-Dibromo-3-chloropropane front	% recovery	89	106	-	-	-
1,2-Dibromo-3-chloropropane back	% recovery	< 1	< 1	-	-	-
1,2,4-Trichlorobenzene front	% recovery	74	83	-	-	-
1,2,4-Trichlorobenzene back	% recovery	< 1	< 1	-	-	-
Naphthalene front	% recovery	26	23	-	-	-
Naphthalene back	% recovery	< 1	< 1	-	-	-
1,2,3-Trichlorobenzene front	% recovery	66	74	-	-	-
1,2,3-Trichlorobenzene back	% recovery	< 1	< 1	-	-	-
Hexachlorobutadiene front	% recovery	103	115	-	-	-
Hexachlorobutadiene back	% recovery	< 1	< 1	-	-	-



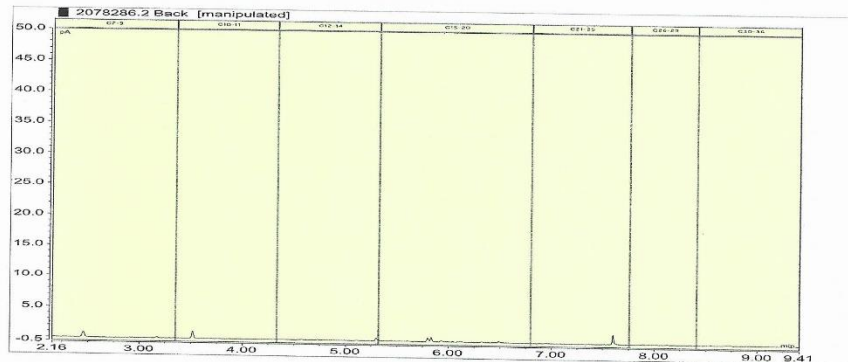
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ST0788/06 Line 2 VOC Spike Run 1 [VOC Spike 1] 13-Nov-2018
Total Petroleum Hydrocarbon Chromatograms for Air Quality Sample



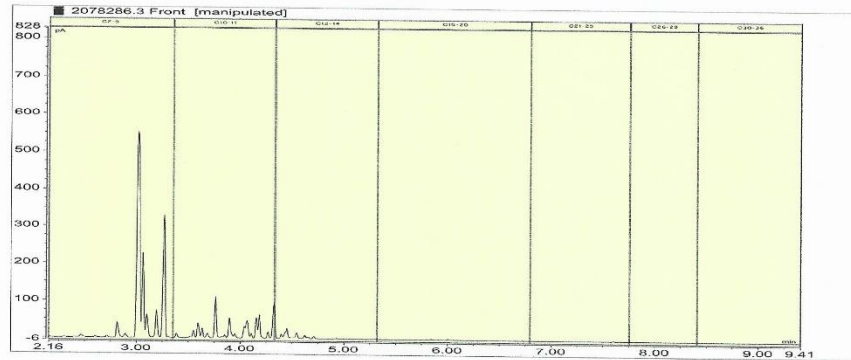
2078286.2
ST0788/08 Line 2 VOC Spike Run 2 [VOC Spike 2] 13-Nov-2018
Total Petroleum Hydrocarbon Chromatograms for Air Quality Sample



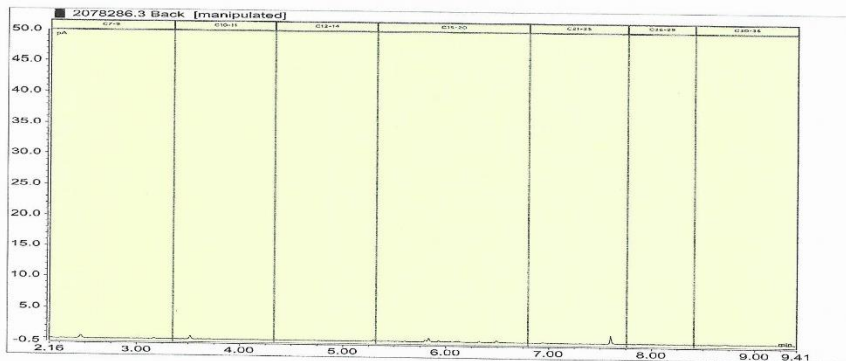
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Total Petroleum Hydrocarbon Chromatograms for Air Quality Sample



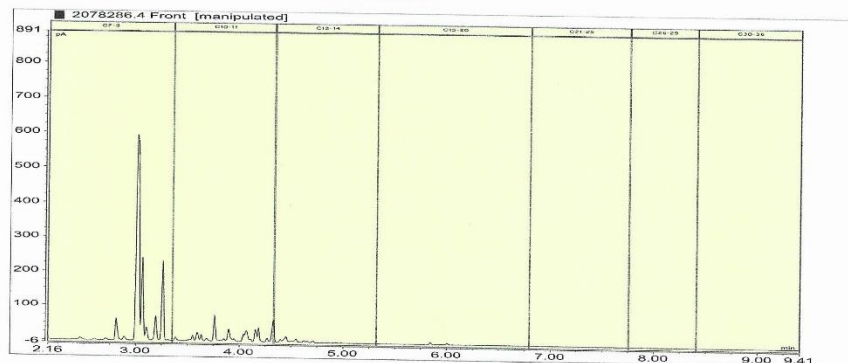
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ST0788/10 Internal Laquer VOC Spike Run 1 [VOC Spike 3] 14-Nov-2018
Total Petroleum Hydrocarbon Chromatograms for Air Quality Sample



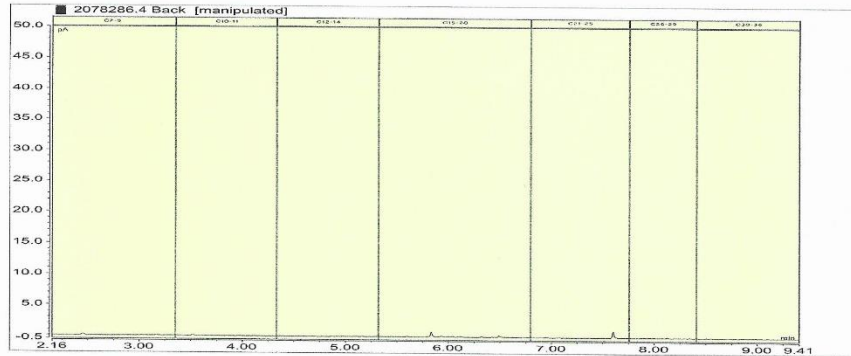
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Total Petroleum Hydrocarbon Chromatograms for Air Quality Sample



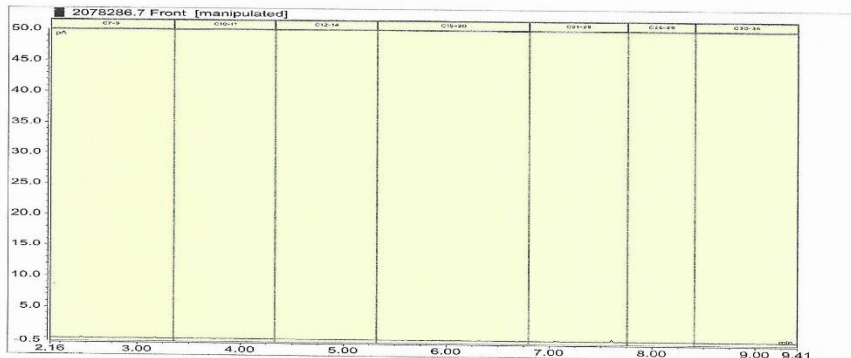
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Total Petroleum Hydrocarbon Chromatograms for Air Quality Sample



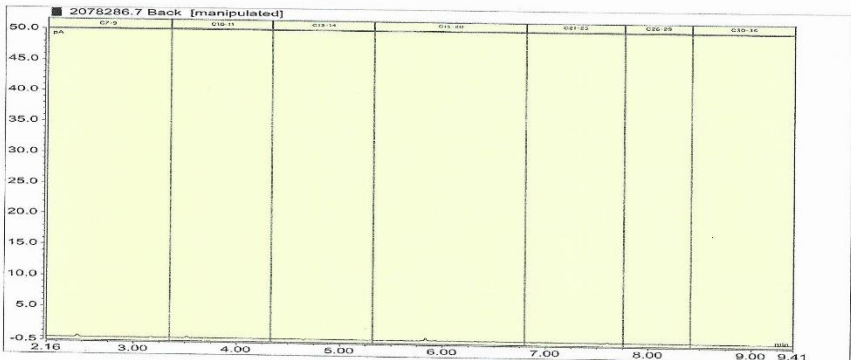
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Total Petroleum Hydrocarbon Chromatograms for Air Quality Sample



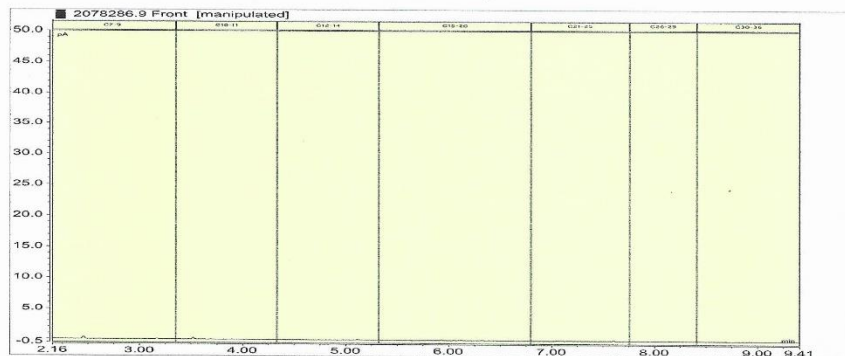
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Total Petroleum Hydrocarbon Chromatograms for Air Quality Sample



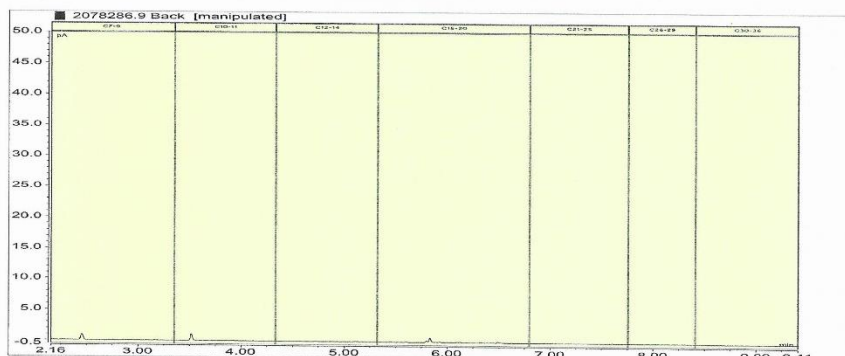
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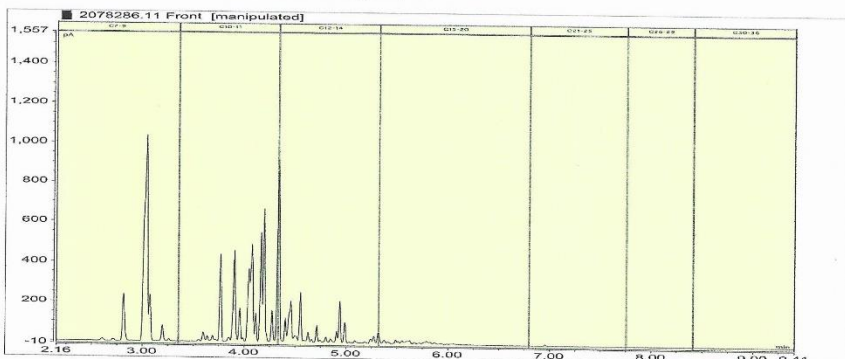
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Total Petroleum Hydrocarbon Chromatograms for Air Quality Sample



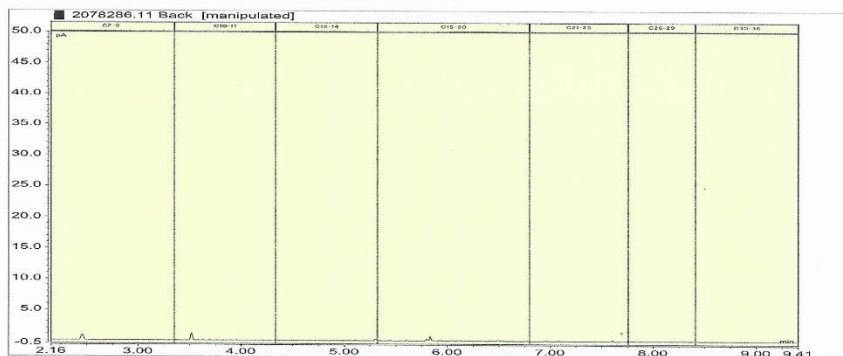
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Total Petroleum Hydrocarbon Chromatograms for Air Quality Sample



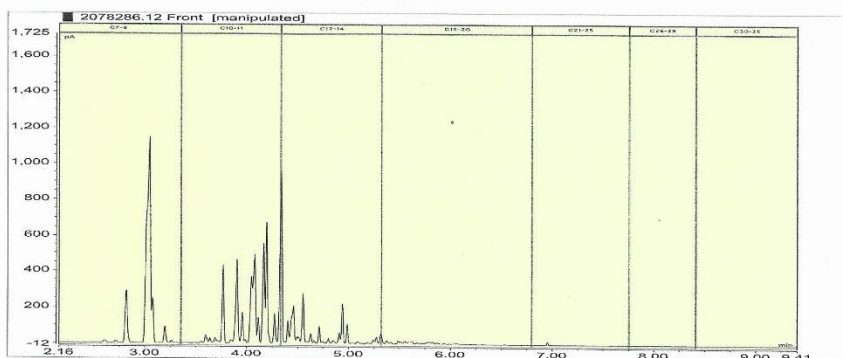
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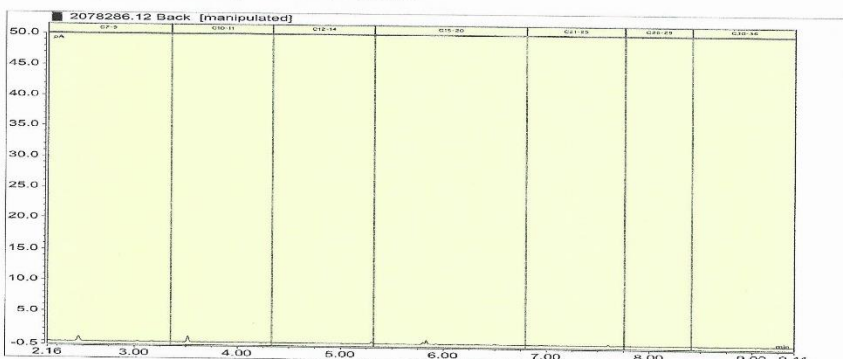
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Total Petroleum Hydrocarbon Chromatograms for Air Quality Sample



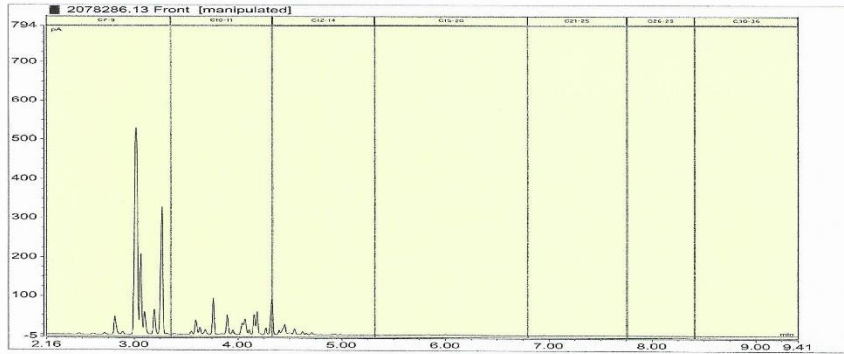
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ST0788/07 Line 2 VOC Sample Run 2 13-Nov-2018
Total Petroleum Hydrocarbon Chromatograms for Air Quality Sample



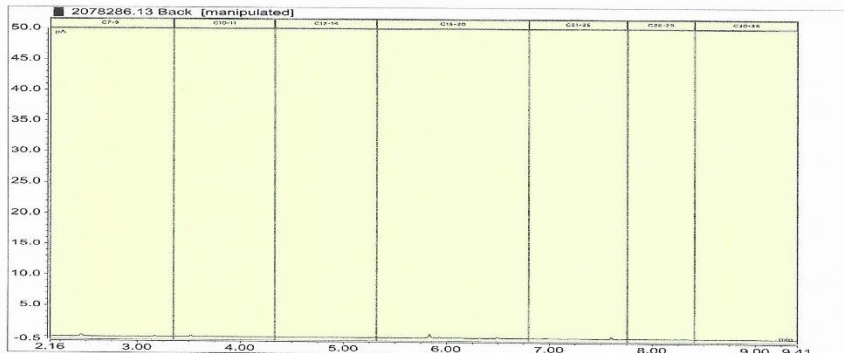
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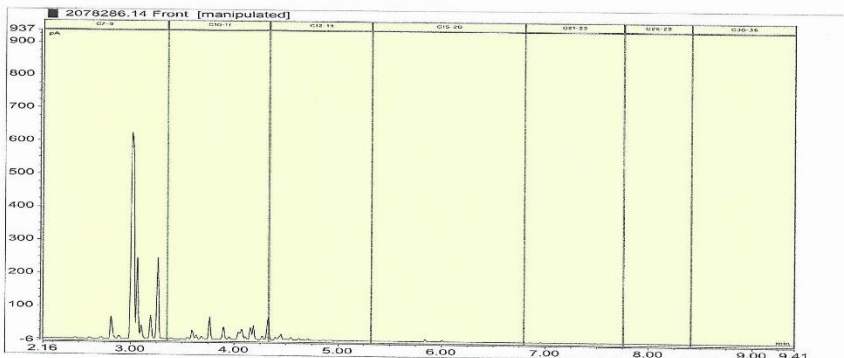
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ST0788/09 Internal Laquer VOC Sample Run 1 14-Nov-2018
Total Petroleum Hydrocarbon Chromatograms for Air Quality Sample



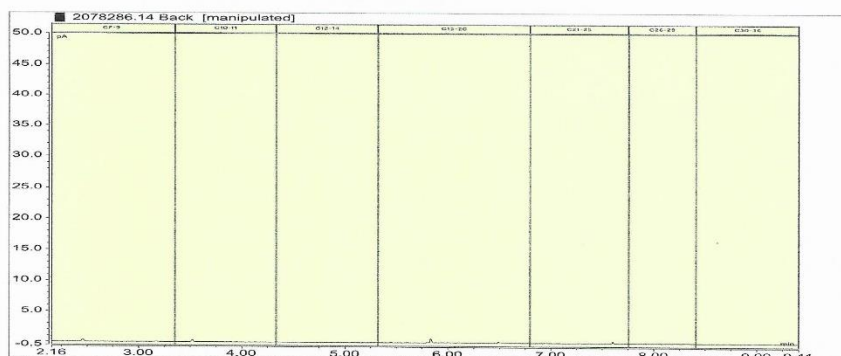
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ST0788/09 Internal Laquer VOC Sample Run 1 14-Nov-2018
Total Petroleum Hydrocarbon Chromatograms for Air Quality Sample



2078286.14
ST0788/11 Internal Laquer VOC Sample Run 2 14-Nov-2018
Total Petroleum Hydrocarbon Chromatograms for Air Quality Sample



2078286.14
 ST0788/11 Internal Laquer VOC Sample Run 2 14-Nov-2018
 Total Petroleum Hydrocarbon Chromatograms for Air Quality Sample



Analyst's Comments

The VOC suite was spiked at 20 µg per sample for each compound.

The chromatographic data generated from these samples was highly complex with a large number of peaks present and some co-eluting with the target compounds. Some peaks that co-eluted with target compounds are not reported in the mass spectral library search reports due to the resulting low level matches to reference mass spectra observed. For example 1-methoxy-2-propanol co-eluted with the internal standard in all samples and is not identified in the mass spectra library search reports.

Appendix No.1 - 2078286 Library Search Report

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively clean matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. Unless otherwise indicated, analyses were performed at Hill Laboratories, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: 400/200 mg CSC tube SKC 226-09			
Test	Method Description	Default Detection Limit	Sample No
Library Search on Air Quality VOC samples	A Library Search is conducted of the Mass Spectra for unidentified peaks against the NIST 2008 Mass Spectral Library containing 220,460 mass spectra of 192,108 different chemical compounds. Only peaks with a greater than 70% quality match are reported, along with their semi-quantitative concentrations, to a maximum of 100 peaks matched.	-	1-4, 11-14
TPH suite from large charcoal tubes (screen)	Break into fractions, desorption with CS ₂ , analysis by GC-FID, in-house methodology based on NIOSH Methods 1500 Issue 3, 2003 and 1550 Issue 2, 1994.	6 - 76 µg/sample	1-4, 7, 9, 11-14
VOC suite from large charcoal tubes (screen)	Break into fractions, desorption with CS ₂ , analysis by GC-MS	0.2 - 4 µg/sample	1-4, 7, 9, 11-14
Sample Type: 400/200 mg CSC SKC 226-09 Desorption Efficiency			
Test	Method Description	Default Detection Limit	Sample No
Desorption efficiency tube for VOC analysis from cASTL	Break into fractions, desorption with CS ₂ , analysis by GC-MS	1 % recovery	8, 10

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Samples are held at the laboratory after reporting for a length of time depending on the preservation used and the stability of the analytes being tested. Once the storage period is completed the samples are discarded unless otherwise advised by the client.

This certificate of analysis must not be reproduced, except in full, without the written consent of the signatory.

Graham Corban MSc Tech (Hons)
 Client Services Manager - Environmental

Appendix 1. Library Search Compound Report

LSR Sample: 2078286/1
 Conversion Factor 1
 TIC Integration Parameters: RTEINT.e
 VOC for NIOSH

Peak Number 2 Propane, 2,2-dichloro- Concentration Rank 53

R.T.	EstConc	Area	Relative to ISTD	R.T.	
6.939	1.4 ug/sam	3189970	Benzene-d6	7.705	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Propane, 2,2-dichloro-	112	C3H6Cl2	000594-20-7	83
2	Propane, 2,2-dichloro-	112	C3H6Cl2	000594-20-7	78

Peak Number 3 Formic acid, butyl ester Concentration Rank 52

R.T.	EstConc	Area	Relative to ISTD	R.T.	
8.498	1.5 ug/sam	3327230	Benzene-d6	7.705	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Formic acid, butyl ester	102	C5H10O2	000592-84-7	83
2	Formic acid, butyl ester	102	C5H10O2	000592-84-7	78

Peak Number 4 Acetic acid, butyl ester Concentration Rank 29

R.T.	EstConc	Area	Relative to ISTD	R.T.	
9.724	19 ug/sam	43082900	Benzene-d6	7.705	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetic acid, butyl ester	116	C6H12O2	000123-86-4	83
2	Acetic acid, butyl ester	116	C6H12O2	000123-86-4	72

Peak Number 6 Cyclopentane, propyl- Concentration Rank 42

R.T.	EstConc	Area	Relative to ISTD	R.T.	
10.124	4 ug/sam	8999470	Benzene-d6	7.705	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentane, propyl-	112	C8H16	002040-96-2	95
2	Cyclopentane, propyl-	112	C8H16	002040-96-2	93

Peak Number 9 1-Butanol, 3-methoxy- Concentration Rank 55

R.T.	EstConc	Area	Relative to ISTD	R.T.	
10.539	1.3 ug/sam	3016850	Benzene-d6	7.705	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Butanol, 3-methoxy-	104	C5H12O2	002517-43-2	72

Peak Number 11 (1S)-2,6,6-Trimethylbicyclo... Concentration Rank 46

R.T.	EstConc	Area	Relative to ISTD	R.T.	
11.419	2.4 ug/sam	5447170	Benzene-d6	7.705	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	(1S)-2,6,6-Trimethylbicyclo[3.1.1]heptane	136	C10H16	007785-26-4	96
2	(1R)-2,6,6-Trimethylbicyclo[3.1.1]heptane	136	C10H16	007785-70-8	95

Peak Number 12 Benzene, 1-ethyl-3-methyl- Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	R.T.	
11.682	62.7 ug/sam	142107000	Benzene-d6	7.705	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	91
2	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	91

Peak Number 14 Mesitylene Concentration Rank 20					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
11.904	51 ug/sam	115680000	Benzene-d6	7.705	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Mesitylene	120	C9H12	000108-67-8	90
2	Mesitylene	120	C9H12	000108-67-8	90
Peak Number 15 Mesitylene Concentration Rank 8					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.371	338.7 ug/sam	767688000	Benzene-d6	7.705	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Mesitylene	120	C9H12	000108-67-8	91
2	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	90
Peak Number 16 Benzene, 1,3-diethyl- Concentration Rank 13					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.444	181.5 ug/sam	411294000	Benzene-d6	7.705	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,3-diethyl-	134	C10H14	020141-93-5	96
2	Benzene, 1,3-diethyl-	134	C10H14	020141-93-5	94
Peak Number 17 Indene Concentration Rank 19					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.613	51.8 ug/sam	117522000	Benzene-d6	7.705	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Indene	116	C9H8	000095-13-6	86

Peak Number 18 Benzene, 1-methyl-3-propyl- Concentration Rank 14					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.668	194 ug/sam	371730000	Benzene-d6	7.705	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-3-propyl-	134	C10H14	001074-43-7	95
2	Benzene, 1-methyl-4-propyl-	134	C10H14	001074-55-1	91
Peak Number 19 1,3,8-p-Menthatriene Concentration Rank 9					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.743	298.9 ug/sam	677488000	Benzene-d6	7.705	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,3,8-p-Menthatriene	134	C10H14	018368-95-1	91
2	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	74
Peak Number 21 p-Mentha-1,5,8-triene Concentration Rank 3					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.821	386.2 ug/sam	875249000	Benzene-d6	7.705	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	p-Mentha-1,5,8-triene	134	C10H14	C21195-59-5	87
Peak Number 23 Benzene, 1-ethyl-2,4-dimethyl- Concentration Rank 16					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.916	103.9 ug/sam	235468000	Benzene-d6	7.705	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2,4-dimethyl-	134	C10H14	000874-41-9	93
2	Benzene, 1-methyl-3-(1-methylethyl)-	134	C10H14	000535-77-3	87

SOURCE TESTING NZ

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Peak Number 24 Pentanedioic acid, dimethyl... Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.954	361.6 ug/sam	819334000	Benzene-d6	7.705	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentanedioic acid, dimethyl ester	150	C7H12O4	001119-00-0	83

Peak Number 25 Benzene, 1-methyl-2,3-dimethyl- Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.041	182 ug/sam	412521000	Benzene-d6	7.705	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-2,3-dimethyl-	134	C10H14	000933-98-2	94
2	Benzene, 1-methyl-2,4-dimethyl-	134	C10H14	000874-41-9	93

Peak Number 28 1,3,8-p-Menthatriene Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.165	357 ug/sam	839095000	Benzene-d6	7.705	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,3,8-p-Menthatriene	134	C10H14	018368-95-1	80
2	Benzenofuran, 2,3-dihydro-2-methyl-	134	C9H10O	001746-11-8	72

Peak Number 30 Benzene, 1-methyl-4-(1-methyl-... Concentration Rank 25

R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.252	27.6 ug/sam	625005000	Benzene-d6	7.705	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-4-(1-methyl-...)	148	C11H16	001595-16-0	70

Peak Number 33 Benzene, 1-methyl-4-(1-methyl-... Concentration Rank 22

R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.455	44 ug/sam	995983000	Benzene-d6	7.705	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-4-(1-methyl-...)	148	C11H16	001595-16-0	76

Peak Number 34 1,3,8-p-Menthatriene Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.508	405 ug/sam	917793000	Benzene-d6	7.705	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,3,8-p-Menthatriene	134	C10H14	018368-95-1	86
2	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	83

Peak Number 35 1H-Indene, 3-methyl- Concentration Rank 28

R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.600	20.3 ug/sam	459672000	Benzene-d6	7.705	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 3-methyl-	130	C10H10	000767-60-2	93
2	2,4-Dihydronaphthalene	130	C10H10	000612-17-9	92

Peak Number 36 Benzene, 2,4-dimethyl-1-(1-... Concentration Rank 31

R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.677	17.4 ug/sam	393554000	Benzene-d6	7.705	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 2,4-dimethyl-1-(1-...)	148	C11H16	004706-89-2	90
2	Benzene, 1,4-dimethyl-2-(1-methyl-...)	148	C11H16	004132-72-3	87

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Peak Number 37 Benzene, 1-ethyl-2,4,5-trimethyl- Concentration Rank 24						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
13.827	32 ug/sam	72554300	Benzene-d6	7.705		
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual	
1	Benzene, 1-ethyl-2,4,5-trimethyl-	148	C11H14	017851-27-3	90	
2	Benzene, pentamethyl-	148	C11H16	000700-12-9	87	
Peak Number 41 Benzene, 1-ethyl-4-(2-methylpropyl)- Concentration Rank 44						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
14.248	3.3 ug/sam	7426000	Benzene-d6	7.705		
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual	
1	Benzene, 1-ethyl-4-(2-methylpropyl)-	152	C12H18	100319-40-2	87	
2	Benzene, 1-ethyl-3,5-dimethyl-	134	C10H14	000934-74-7	86	
Peak Number 42 1H-Indene, 2,3-dihydro-5,6-dimethyl- Concentration Rank 21						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
14.307	49.5 ug/sam	112156000	Benzene-d6	7.705		
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual	
1	1H-Indene, 2,3-dihydro-5,6-dimethyl-	146	C11H14	001075-22-5	94	
2	1H-Indene, 2,3-dihydro-4,7-dimethyl-	146	C11H14	006682-71-9	93	
Peak Number 43 Benzene, 2,4-dimethyl-1-(1-methylpropyl)- Concentration Rank 33						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
14.399	14.6 ug/sam	33157000	Benzene-d6	7.705		
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual	
1	Benzene, 2,4-dimethyl-1-(1-methylpropyl)-	162	C12H18	001483-60-9	90	
2	Benzene, 1,3,5-trimethyl-2-propyl-	152	C12H18	004810-04-2	81	

Peak Number 44 1H-Indene, 2,3-dihydro-4,7-dimethyl- Concentration Rank 23						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
14.463	42.2 ug/sam	95597000	Benzene-d6	7.705		
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual	
1	1H-Indene, 2,3-dihydro-4,7-dimethyl-	146	C11H14	006682-71-9	97	
2	1H-Indene, 2,3-dihydro-1,3-dimethyl-	146	C11H14	004175-53-5	95	
Peak Number 45 Benzene, pentamethyl- Concentration Rank 18						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
14.618	58 ug/sam	131462000	Benzene-d6	7.705		
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual	
1	Benzene, pentamethyl-	148	C11H16	000700-12-9	95	
2	1,3,6,7-tetramethylbicyclo[3.2.0]heptane	148	C11H16	194329-46-7	91	
Peak Number 47 1H-Indene, 2,3-dihydro-1,2-dimethyl- Concentration Rank 27						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
14.647	24.2 ug/sam	54756700	Benzene-d6	7.705		
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual	
1	1H-Indene, 2,3-dihydro-1,2-dimethyl-	146	C11H14	017057-82-8	91	
2	1H-Indene, 2,3-dihydro-1,6-dimethyl-	146	C11H14	017059-68-2	91	
Peak Number 51 1H-Indene, 2,3-dihydro-4-propyl- Concentration Rank 41						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
14.869	4.4 ug/sam	9974580	Benzene-d6	7.705		
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual	
1	1H-Indene, 2,3-dihydro-4-propyl-	160	C12H16	092013-16-6	87	
2	Bicyclo[4.2.0]octa-1,3,5-triene, 1,3-dimethyl-	160	C12H16	078920-29-3	83	

SOURCE TESTING NZ

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Peak Number 53 Naphthalene, 2-methyl-		Concentration Rank 11			
R.T.	EstConc	Area	Relative to ISTD	R.T.	
14.553	261.6 ug/sam	592797000	Benzene-d6	7.705	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	96
2	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	94
Peak Number 54 Benzene, 1-(1,1-dimethylethyl)-3...		Concentration Rank 47			
R.T.	EstConc	Area	Relative to ISTD	R.T.	
15.086	2.3 ug/sam	5260410	Benzene-d6	7.705	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-(1,1-dimethylethyl)-3...	162	C12H18	000098-19-1	72
Peak Number 55 Naphthalene, 2-methyl-		Concentration Rank 15			
R.T.	EstConc	Area	Relative to ISTD	R.T.	
15.144	153.8 ug/sam	348444000	Benzene-d6	7.705	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	96
2	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	95

LSR Sample: 2078286/2
 Conversion Factor: 4
 TIC Integration Parameters: RTEINT.e

VOC for NIOSH

Peak Number 2 Formic acid, butyl ester Concentration Rank 53

R.T.	EstConc	Area	Relative to ISTD	R.T.	
8.495	1.5 ug/sam	3170880	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Formic acid, butyl ester	102	C5H10O2	000592-84-7	83
2	Formic acid, butyl ester	102	C5H10O2	000592-84-7	83

Peak Number 3 Acetic acid, butyl ester Concentration Rank 29

R.T.	EstConc	Area	Relative to ISTD	R.T.	
9.723	19 ug/sam	40833200	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetic acid, butyl ester	116	C6H12O2	000123-86-4	83
2	Acetic acid, butyl ester	116	C6H12O2	000123-86-4	72

Peak Number 5 Cyclopentane, propyl- Concentration Rank 40

R.T.	EstConc	Area	Relative to ISTD	R.T.	
10.124	4.5 ug/sam	9591800	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentane, propyl-	112	C8H16	002040-96-2	95
2	Cyclopentane, propyl-	112	C8H16	002040-96-2	95

Peak Number 6 3-Octyne Concentration Rank 54

R.T.	EstConc	Area	Relative to ISTD	R.T.	
10.156	1.4 ug/sam	2970850	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Octyne	130	C8H14	015232-76-5	86
2	2-Methylcycloheptene	110	C8H14	055308-20-8	72

Peak Number 9 Anisole Concentration Rank 49

R.T.	EstConc	Area	Relative to ISTD	R.T.	
11.235	2 ug/sam	4213590	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Anisole	108	C7H8O	000100-66-3	89
2	Anisole	108	C7H8O	000100-66-3	76

Peak Number 10 (1S)-2,6,6-Trimethylbicyclo... Concentration Rank 45

R.T.	EstConc	Area	Relative to ISTD	R.T.	
11.419	3.1 ug/sam	6677000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	(1S)-2,6,6-Trimethylbicyclo[3.1.1]	136	C10H16	007785-26-4	97
2	(1R)-2,6,6-Trimethylbicyclo[3.1.1]	136	C10H16	007785-10-8	95

Peak Number 11 Benzene, 1-ethyl-2-methyl- Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	R.T.	
11.662	55.5 ug/sam	119182000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-	120	C9H12	008611-14-3	91
2	Benzene, 1-ethyl-3-methyl-	120	C9H12	008620-14-4	91

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Peak Number 13 Benzene, 1-ethyl-2-methyl- Concentration Rank 20					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
11.994	46.5 ug/sam	99727800	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	95
2	Benzene, 1-ethyl-4-methyl-	120	C9H12	000622-36-8	91
Peak Number 14 Benzene, 1,2,3-trimethyl- Concentration Rank 7					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.371	334.6 ug/sam	718205000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	91
2	Mesitylene	120	C9H12	000108-67-8	91
Peak Number 15 Benzene, 1,3-dieethyl- Concentration Rank 13					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.445	165.8 ug/sam	355815000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,3-dieethyl-	134	C10H14	000141-93-5	96
2	Benzene, 1,3-dieethyl-	134	C10H14	000141-93-5	94
Peak Number 16 Indene Concentration Rank 19					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.613	47 ug/sam	100901000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Indene	116	C9H8	000095-13-6	86
2	Benzene, 1-propynyl-	116	C9H8	000673-32-5	86

Peak Number 17 Benzene, 1-methyl-3-propyl- Concentration Rank 14					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.668	154.8 ug/sam	332152000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-3-propyl-	134	C10H14	001074-43-7	94
2	Benzene, 1-methyl-4-propyl-	134	C10H14	001074-55-1	92
Peak Number 18 1,3,8-p-Menthatriene Concentration Rank 9					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.743	289.3 ug/sam	621035000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,3,8-p-Menthatriene	134	C10H14	018368-95-1	91
2	1,3,8-p-Menthatriene	134	C10H14	018368-95-1	86
Peak Number 22 Benzene, 1-ethyl-2,4-dimethyl- Concentration Rank 16					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.916	94 ug/sam	201852000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2,4-dimethyl-	134	C10H14	000874-41-9	93
2	Benzene, 1-methyl-3-(1-methylethyl)-	134	C10H14	000835-77-3	90
Peak Number 23 Pentanedioic acid, dimethyl... Concentration Rank 4					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.953	350 ug/sam	772877000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentanedioic acid, dimethyl ester	150	C7H12O4	001119-60-0	83

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Peak Number 24 Benzene, 2-ethyl-1,4-dimethyl- Concentration Rank 13					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.040	168.7 ug/sam	362035000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	001758-88-9	97
2	Benzene, 4-ethyl-1,2-dimethyl-	134	C10H14	000934-80-5	96
Peak Number 27 1,3,8-p-Menthatriene Concentration Rank 6					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.163	347.4 ug/sam	745560000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,3,8-p-Menthatriene	134	C10H14	018368-95-1	72
Peak Number 32 Benzene, 1-methyl-4-(1-methyl-... Concentration Rank 22					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.456	40.4 ug/sam	86801300	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-4-(1-methylpro...	148	C11H16	001695-16-0	76
Peak Number 33 Benzene, 1,2,4,5-tetramethyl- Concentration Rank 3					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.508	382 ug/sam	819983000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	91
2	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	91

Peak Number 34 1H-Indene, 3-methyl- Concentration Rank 28					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.600	19.3 ug/sam	41408100	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 3-methyl-	130	C10H10	000767-60-2	93
2	1,4-Dihydronaphthalene	130	C10H10	000612-17-9	93
Peak Number 35 Benzene, pentamethyl- Concentration Rank 31					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.676	16 ug/sam	34457900	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, pentamethyl-	148	C11H16	000700-12-9	91
2	Benzene, pentamethyl-	148	C11H16	000700-12-9	91
Peak Number 36 Benzene, pentamethyl- Concentration Rank 24					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.837	29.4 ug/sam	62999300	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, pentamethyl-	148	C11H16	000700-12-9	90
2	Benzene, 1,3-dimethyl-5-(1-methyl...	148	C11H16	004706-90-5	90
Peak Number 38 Benzene, 1,3,5-trimethyl-2-... Concentration Rank 51					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
14.036	1.5 ug/sam	3232370	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,3,5-trimethyl-2-propyl-	162	C12H18	004810-04-2	72

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Peak Number 41 1H-Indene, 2,3-dihydro-4,7-... Concentration Rank 21						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
14.398	44.7 ug/sam	55967100	Benzene-d6	7.701		
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual	
1	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	94	
2	1H-Indene, 2,3-dihydro-4,6-dimet...	146	C11H14	001685-82-1	93	
Peak Number 42 Benzene, 1,3,5-trimethyl-2-... Concentration Rank 33						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
14.400	13.2 ug/sam	28420100	Benzene-d6	7.701		
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual	
1	Benzene, 1,3,5-trimethyl-2-propyl-	162	C12H18	004810-94-2	81	
2	Benzene, 2,4-dimethyl-1-(1-methy...	162	C12H18	001483-60-9	78	
Peak Number 43 1H-Indene, 2,3-dihydro-4,7-... Concentration Rank 23						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
14.463	37.8 ug/sam	81129100	Benzene-d6	7.701		
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual	
1	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	97	
2	1H-Indene, 2,3-dihydro-1,3-dimet...	146	C11H14	006175-53-5	95	
Peak Number 45 Benzene, pentamethyl- Concentration Rank 18						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
14.618	52 ug/sam	121657000	Benzene-d6	7.701		
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual	
1	Benzene, pentamethyl-	148	C11H16	000700-12-9	95	
2	Benzene, 1,3-dimethyl-5-(1-methy...	148	C11H16	004706-90-5	91	

Peak Number 46 1H-Indene, 2,3-dihydro-1,3-... Concentration Rank 27						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
14.666	21.5 ug/sam	46206900	Benzene-d6	7.701		
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual	
1	1H-Indene, 2,3-dihydro-1,3-dimet...	146	C11H14	004175-53-5	91	
2	1H-Indene, 2,3-dihydro-1,2-dimet...	146	C11H14	017057-82-8	91	
Peak Number 50 1H-Indene, 2,3-dihydro-1-pr... Concentration Rank 42						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
14.871	4 ug/sam	8552180	Benzene-d6	7.701		
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual	
1	1H-Indene, 2,3-dihydro-4-propyl-	160	C12H16	092013-16-6	83	
Peak Number 51 Naphthalene, 2-methyl- Concentration Rank 11						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
14.959	248.5 ug/sam	533452000	Benzene-d6	7.701		
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual	
1	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	96	
2	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	95	
Peak Number 52 Naphthalene, 6-ethyl-1,2,3,... Concentration Rank 34						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
15.011	9.8 ug/sam	20906800	Benzene-d6	7.701		
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual	
1	Naphthalene, 6-ethyl-1,2,3,4-tet...	160	C12H16	022531-20-0	90	
2	Naphthalene, 5-ethyl-1,2,3,4-tet...	160	C12H16	042775-75-7	72	

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Peak Number 53 5-Hydroxy-3-methyl-1-indanone Concentration Rank 48					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
15.088	2.2 ug/sam	4613170	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MM	MolForm	CAS#	Qual
1	5-Hydroxy-3-methyl-1-indanone	162	C10H10O2	957878-30-5	72
Peak Number 54 Naphthalene, 2-methyl- Concentration Rank 15					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
15.144	140.9 ug/sam	302526000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MM	MolForm	CAS#	Qual
1	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	96
2	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	95

LSR Sample: 2078286/3
 Conversion Factor: 4
 TIC Integration Parameters: RTEINT.e

VOC for NIOSH

Peak Number 1 Ethylene, 1,2-dichloro-, (Z)- Concentration Rank 27

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.734	6.5 ug/sam	11985800	Benzene-d6	7.701

Hit# of 5 Tentative ID MW MolForm CAS# Qual

1	Ethylene, 1,2-dichloro-, (Z)-	96	C2H2Cl2	000156-59-2	95
2	Ethylene, 1,2-dichloro-, (Z)-	96	C2H2Cl2	000156-59-2	95

Peak Number 3 Propane, 2,2-dichloro- Concentration Rank 26

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.937	6.5 ug/sam	12010300	Benzene-d6	7.701

Hit# of 5 Tentative ID MW MolForm CAS# Qual

1	Propane, 2,2-dichloro-	112	C3H6Cl2	000594-20-7	90
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Peak Number 4 Methyl methacrylate Concentration Rank 64

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.310	0.8 ug/sam	1572950	Benzene-d6	7.701

Hit# of 5 Tentative ID MW MolForm CAS# Qual

1	Methyl methacrylate	100	C5H8O2	000080-62-6	91
2	Methyl methacrylate	100	C5H8O2	000080-62-6	86

Peak Number 5 Acetic acid, butyl ester Concentration Rank 20

R.T.	EstConc	Area	Relative to ISTD	R.T.
9.723	8.6 ug/sam	15947500	Benzene-d6	7.701

Hit# of 5 Tentative ID MW MolForm CAS# Qual

1	Acetic acid, butyl ester	116	C6H12O2	000123-86-4	83
2	Acetic acid, butyl ester	116	C6H12O2	000123-86-4	72

Peak Number 6 Undec-10-ynoic acid, dodecyl... Concentration Rank 59

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.030	1.2 ug/sam	2222670	Benzene-d6	7.701

Hit# of 5 Tentative ID MW MolForm CAS# Qual

1	Undec-10-ynoic acid, dodecyl ester	350	C23H42O2	1090406-16-5	78
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Peak Number 7 Cyclopentane, propyl- Concentration Rank 22

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.123	7.3 ug/sam	13561500	Benzene-d6	7.701

Hit# of 5 Tentative ID MW MolForm CAS# Qual

1	Cyclopentane, propyl-	112	C8H16	002040-96-2	97
2	Cyclopentane, propyl-	112	C8H16	002040-96-2	97

Peak Number 11 Cycloheptane, methyl- Concentration Rank 56

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.557	1.4 ug/sam	2652640	Benzene-d6	7.701

Hit# of 5 Tentative ID MW MolForm CAS# Qual

1	Cycloheptane, methyl-	112	C8H16	004126-78-7	93
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Peak Number 12 Anisole Concentration Rank 57

R.T.	EstConc	Area	Relative to ISTD	R.T.
11.231	1.3 ug/sam	2452250	Benzene-d6	7.701

Hit# of 5 Tentative ID MW MolForm CAS# Qual

1	Anisole	108	C7H8O	000100-66-3	87
2	Anisole	108	C7H8O	000100-66-3	87

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Peak Number 14 .alpha.-Pinene Concentration Rank 38						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
11.418	4.1 ug/sam	7551230	Benzene-d6	7.701		
Hit# of 5	Tentative ID	MM	MolForm	CAS#	Qual	
1	.alpha.-Pinene	136	C10H16	003080-56-8	97	
2	(1R)-2,6,6-Trimethylbicyclo[3.1.1]	136	C10H16	007785-70-8	95	
Peak Number 15 Benzene, 1-ethyl-2-methyl- Concentration Rank 7						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
11.681	62.6 ug/sam	115902000	Benzene-d6	7.701		
Hit# of 5	Tentative ID	MM	MolForm	CAS#	Qual	
1	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	95	
2	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	90	
Peak Number 17 Benzene, 1-ethyl-2-methyl- Concentration Rank 11						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
11.994	24.4 ug/sam	43083200	Benzene-d6	7.701		
Hit# of 5	Tentative ID	MM	MolForm	CAS#	Qual	
1	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	95	
2	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	95	
Peak Number 18 Mesitylene Concentration Rank 5						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
12.366	83 ug/sam	15350000	Benzene-d6	7.701		
Hit# of 5	Tentative ID	MM	MolForm	CAS#	Qual	
1	Mesitylene	120	C9H12	000108-67-8	97	
2	Mesitylene	120	C9H12	000108-67-8	97	

Peak Number 19 Benzene, 1,3-diethyl- Concentration Rank 14						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
12.460	19.1 ug/sam	35273000	Benzene-d6	7.701		
Hit# of 5	Tentative ID	MM	MolForm	CAS#	Qual	
1	Benzene, 1,3-diethyl-	134	C10H14	000141-93-5	96	
2	Benzene, 1,4-diethyl-	134	C10H14	000105-05-5	95	
Peak Number 20 Benzene, 1,2-diethyl- Concentration Rank 29						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
12.605	5.8 ug/sam	10712100	Benzene-d6	7.701		
Hit# of 5	Tentative ID	MM	MolForm	CAS#	Qual	
1	Benzene, 1,2-diethyl-	134	C10H14	000135-01-3	91	
2	Benzene, 1,2-diethyl-	134	C10H14	000135-01-3	90	
Peak Number 21 Benzene, 1-methyl-2-propyl- Concentration Rank 10						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
12.664	25.5 ug/sam	47146100	Benzene-d6	7.701		
Hit# of 5	Tentative ID	MM	MolForm	CAS#	Qual	
1	Benzene, 1-methyl-2-propyl-	134	C10H14	001074-17-5	94	
2	Benzene, 1-methyl-4-propyl-	134	C10H14	001074-55-1	91	
Peak Number 22 Benzene, 2-ethyl-1,4-dimethyl- Concentration Rank 8						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
12.738	51.1 ug/sam	94543700	Benzene-d6	7.701		
Hit# of 5	Tentative ID	MM	MolForm	CAS#	Qual	
1	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	001758-88-9	96	
2	Benzene, 1-ethyl-2,4-dimethyl-	134	C10H14	000874-41-9	95	

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Peak Number 23 Benzene, 2-ethyl-1,3-dimethyl- Concentration Rank 15					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.912	14.3 ug/sam	26445500	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 2-ethyl-1,3-dimethyl-	134	C10H14	002870-04-4	93
2	Benzene, 4-ethyl-1,2-dimethyl-	134	C10H14	350934-80-5	90
Peak Number 24 Pentanedioic acid, dimethyl... Concentration Rank 12					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.558	23.3 ug/sam	43099600	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentanedioic acid, dimethyl ester	160	C7H12O4	001113-40-0	78
Peak Number 26 Benzene, 1-ethyl-2,3-dimethyl- Concentration Rank 9					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.038	30.5 ug/sam	56404800	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2,3-dimethyl-	134	C10H14	000993-98-2	96
2	Benzene, 2-ethyl-1,3-dimethyl-	134	C10H14	002870-04-4	95
Peak Number 27 Benzene, pentamethyl- Concentration Rank 53					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.112	1.8 ug/sam	3391210	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, pentamethyl-	148	C11H16	000705-12-9	78
2	Benzene, 2-(chloromethyl)-1,3,5-trimethyl-	168	C10H13Cl	001583-16-6	72

Peak Number 28 Benzene, 1,2,3,5-tetramethyl- Concentration Rank 4					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.157	89.6 ug/sam	165821000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	97
2	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	97
Peak Number 29 Benzene, 1,2,3,4-tetramethyl- Concentration Rank 2					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.192	128.9 ug/sam	238449000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	97
2	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	97
Peak Number 30 o-Cymene Concentration Rank 23					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.246	7 ug/sam	12884200	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	o-Cymene	134	C10H14	000527-84-4	86
2	o-Cymene	134	C10H14	000527-84-4	86
Peak Number 32 1H-Indene, 2,3-dihydro-4-me... Concentration Rank 13					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.372	22.8 ug/sam	42149000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-4-methyl-	132	C10H12	000824-22-6	94
2	1H-Indene, 2,3-dihydro-5-methyl-	132	C10H12	000874-35-1	93

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 Peak Number 34 Benzene, 1-methyl-4-(1-meth... Concentration Rank 19

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.453	9.6 ug/sam	17788000	Benzene-d6	7.701

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-4-(1-methylpro...	148	C11H16	001535-16-0	87
2	Benzene, (1,1-dimethylpropyl)-	148	C11H16	002049-95-8	83

 Peak Number 35 Benzene, 1,2,3,4-tetramethyl- Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.506	71.1 ug/sam	131613000	Benzene-d6	7.701

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	93
2	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	94

 Peak Number 37 Naphthalene, 1,2,3,4-tetra... Concentration Rank 43

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.614	2.8 ug/sam	5208440	Benzene-d6	7.701

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-	132	C10H12	000119-64-2	93
2	Naphthalene, 1,2,3,4-tetrahydro-	132	C10H12	000119-64-2	90

 Peak Number 38 Benzene, 1,3-dimethyl-5-(1-... Concentration Rank 34

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.675	5 ug/sam	9325700	Benzene-d6	7.701

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,3-dimethyl-5-(1-methy...	148	C11H16	004706-90-5	91
2	Benzene, pentamethyl-	148	C11H16	000700-12-9	91

Peak Number 39 2-Ethylhexyl acrylate Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.708	9.6 ug/sam	17796100	Benzene-d6	7.701

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Ethylhexyl acrylate	184	C11H20O2	030103-11-7	91
2	2-propenoic acid, 6-methylheptyl...	184	C11H20O2	654774-91-3	91

 Peak Number 40 3,4-Dimethylcumene Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.836	13.5 ug/sam	24581400	Benzene-d6	7.701

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3,4-Dimethylcumene	148	C11H16	1000370-34-1	91
2	Benzene, pentamethyl-	148	C11H16	000700-12-9	90

 Peak Number 45 1H-Indene, 2,3-dihydro-4,7-... Concentration Rank 25

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.307	6.8 ug/sam	12487200	Benzene-d6	7.701

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	036682-71-9	96
2	1H-Indene, 2,3-dihydro-4,6-dimet...	146	C11H14	001685-62-1	93

 Peak Number 46 Benzene, 2,4-dimethyl-1-(1-... Concentration Rank 35

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.401	4.3 ug/sam	7990180	Benzene-d6	7.701

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 2,4-dimethyl-1-(1-methy...	162	C12H18	001483-60-9	72
2	Benzene, 1,3,5-trimethyl-2-propyl-	162	C12H18	004810-04-2	72

Peak Number 47 Benzene, (3-methyl-2-butenyl)- Concentration Rank 33						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
14.465	3.2 ug/sam	9542460	Benzene-d5	7.701		
Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1		Benzene, (3-methyl-2-butenyl)-	146	C11H14	304489-84-3	94
2		1H-Indene, 2,3-dihydro-1,2-dimet...	146	C11H14	017057-82-8	94
Peak Number 50 Benzene, pentamethyl- Concentration Rank 36						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
14.617	4.2 ug/sam	7779650	Benzene-d5	7.701		
Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1		Benzene, pentamethyl-	148	C11H16	000700-12-9	91
2		Benzene, pentamethyl-	148	C11H16	000700-12-9	87
Peak Number 59 Naphthalene, 2-methyl- Concentration Rank 21						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
14.957	6.4 ug/sam	15481000	Benzene-d5	7.701		
Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1		Naphthalene, 2-methyl-	142	C11H10	000091-57-6	96
2		Naphthalene, 1-methyl-	142	C11H10	000090-12-0	94
Peak Number 64 Naphthalene, 1-methyl- Concentration Rank 28						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
15.143	5.9 ug/sam	10969800	Benzene d5	7.701		
Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1		Naphthalene, 1-methyl-	142	C11H10	000090-12-0	95
2		Naphthalene, 2-methyl-	142	C11H10	000091-57-6	95

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Peak Number 1 1,2-Dichloroethylene Concentration Rank 21					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
6.738	5.6 ug/sam	12942500	Benzene-d6	7.702	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,2-Dichloroethylene	96	C2H2Cl2	002540-59-0	95
2	Ethylene, 1,2-dichloro-, (Z)-	96	C2H2Cl2	001156-59-2	94

Peak Number 3 Propane, 2,2-dichloro- Concentration Rank 22					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
6.938	5.5 ug/sam	13688400	Benzene-d6	7.702	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Propane, 2,2-dichloro-	112	C3H6Cl2	005594-20-7	83

Peak Number 4 Acetic acid, butyl ester Concentration Rank 15					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
9.723	8.4 ug/sam	19503100	Benzene-d6	7.702	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetic acid, butyl ester	116	C6H12O2	000123-86-4	83
2	Acetic acid, butyl ester	116	C6H12O2	000123-86-4	72

Peak Number 6 Cyclopentane, propyl- Concentration Rank 17					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
10.123	7.4 ug/sam	17213800	Benzene-d6	7.702	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentane, propyl-	112	C8H16	002040-96-2	91
2	Cyclopentane, propyl-	112	C8H16	002040-96-2	96

Peak Number 10 Cycloheptane, methyl- Concentration Rank 33					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
10.558	1.2 ug/sam	2650050	Benzene-d6	7.702	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cycloheptane, methyl-	112	C8H18	004126-78-7	91
2	Cyclohexane, 1,3-dimethyl-, trans-	112	C8H18	002707-03-6	72

Peak Number 11 Anisole Concentration Rank 58					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
11.232	0.9 ug/sam	2057710	Benzene-d6	7.702	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Anisole	108	C7H8O	000100-56-3	91
2	Anisole	108	C7H8O	000100-56-3	91

Peak Number 13 .alpha.-Pinene Concentration Rank 42					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
11.419	2.4 ug/sam	5556880	Benzene-d6	7.702	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	.alpha.-Pinene	136	C13H16	000080-56-8	96
2	(1S)-2,6,6-Trimethylbicyclo[3.1.1]	136	C13H16	007785-70-8	95

Peak Number 15 Benzene, 1-ethyl-2-methyl- Concentration Rank 12					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
11.903	14.4 ug/sam	33116200	Benzene-d6	7.702	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	94
2	Benzene, 1,2,4-trimethyl-	120	C9H12	000058-63-6	91

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Peak Number 16 Mesitylene Concentration Rank 5					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.365	46.8 ug/sam	137909000	Benzene-d6	7.702	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Mesitylene	120	C9H12	000108-67-8	97
2	Mesitylene	120	C9H12	000108-67-8	97
Peak Number 17 Benzene, 1,3-diethyl- Concentration Rank 14					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.440	10.9 ug/sam	25138400	Benzene-d6	7.702	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,3-diethyl-	134	C10H14	000141-93-5	96
2	Benzene, 1,2-diethyl-	134	C10H14	000135-01-3	94
Peak Number 18 Benzene, 1,2-diethyl- Concentration Rank 33					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.605	3.6 ug/sam	8309280	Benzene-d6	7.702	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2-diethyl-	134	C10H14	000135-01-3	90
2	Benzene, 1,2-diethyl-	134	C10H14	000135-01-3	90
Peak Number 19 Benzene, 1-methyl-4-propyl- Concentration Rank 11					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.664	14.7 ug/sam	33856200	Benzene-d6	7.702	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-4-propyl-	134	C10H14	000074-55-1	94
2	Benzene, 1-methyl-2-propyl-	134	C10H14	000074-17-5	94

Peak Number 20 Benzene, 4-ethyl-1,2-dimethyl- Concentration Rank 9					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.738	28 ug/sam	64603500	Benzene-d6	7.702	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 4-ethyl-1,2-dimethyl-	134	C10H14	000934-80-5	96
2	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	001758-88-9	96
Peak Number 21 Benzene, 1-ethyl-2,4-dimethyl- Concentration Rank 8					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.770	28.3 ug/sam	65308200	Benzene-d6	7.702	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2,4-dimethyl-	134	C10H14	000874-61-9	94
2	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	91
See above comment.					
Peak Number 22 Pentanedioic acid, dimethyl... Concentration Rank 7					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.937	29.3 ug/sam	67713400	Benzene-d6	7.702	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentanedioic acid, dimethyl ester	160	C7H12O4	001119-46-0	83
2	Pentanedioic acid, dimethyl ester	160	C7H12O4	001119-46-0	72
Peak Number 24 Benzene, 2-ethyl-1,3-dimethyl- Concentration Rank 10					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.038	17.1 ug/sam	38537900	Benzene-d6	7.702	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 2-ethyl-1,3-dimethyl-	134	C10H14	002870-04-4	95
2	Benzene, 2-ethyl-1,3-dimethyl-	134	C10H14	002870-04-4	55

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Peak Number 25 Benzene, pentamethyl- Concentration Rank 53					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.111	1.3 ug/sam	2999880	Benzene-d6	7.702	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, pentamethyl-	148	C11H16	000700-12-9	75
2	1-methyl-1-indanol	148	C10H12O	064666-42-8	72
Peak Number 26 Benzene, 1,2,3,4-tetramethyl- Concentration Rank 4					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.157	47.3 ug/sam	10915600	Benzene-d6	7.702	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	97
2	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-03-7	97
Peak Number 27 Benzene, 1,2,3,4-tetramethyl- Concentration Rank 3					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.191	68.4 ug/sam	15779800	Benzene-d6	7.702	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	97
2	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	97
Peak Number 28 Benzene, 1-methyl-4-(1-methyl-... Concentration Rank 28					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.246	4.1 ug/sam	9436150	Benzene-d6	7.702	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-4-(1-methylpro...	148	C11H16	001595-16-0	76

Peak Number 30 1H-Indene, 2,3-dihydro-4-me... Concentration Rank 13					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.372	12.7 ug/sam	29394200	Benzene-d6	7.702	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-4-methyl-	132	C10H12	000820-22-6	94
2	1H-Indene, 2,3-dihydro-5-methyl-	132	C10H12	000870-35-1	93
Peak Number 32 Benzene, 1-methyl-4-(1-meth... Concentration Rank 23					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.452	5.3 ug/sam	12233000	Benzene-d6	7.702	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-4-(1-methylpro...	148	C11H16	001595-16-0	93
Peak Number 33 Benzene, 1,2,4,5-tetramethyl- Concentration Rank 6					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.505	37.9 ug/sam	87417400	Benzene-d6	7.702	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	91
2	Benzene, 1-ethyl-2,4-dimethyl-	134	C10H14	000874-41-9	91
Peak Number 36 Benzene, 1,3-dimethyl-5-(1-... Concentration Rank 32					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.675	3.2 ug/sam	7480280	Benzene-d6	7.702	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,3-dimethyl-5-(1-methy...	148	C11H16	004706-90-5	90
2	Benzene, 2,4-dimethyl-1-(1-methy...	148	C11H16	004706-89-2	87

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Peak Number 37 2-Propenoic acid, 6-methyl... Concentration Rank 24					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.707	5.1 ug/sam	11764000	Benzene-d6	7.702	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Propenoic acid, 6-methylheptyl...	184	C11H20O2	054774-91-3	91
2	4-(Prop-2-enyloxy)octane	184	C11H20O2	942928-87-0	72
Peak Number 38 Benzene, 1,3-dimethyl-5-(1-... Concentration Rank 16					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.836	7.5 ug/sam	17323500	Benzene-d6	7.702	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,3-dimethyl-5-(1-methyl-2-prop-1-en-1-yl)-	148	C11H16	004706-90-5	87
2	3,4-Dimethylcumene	148	C11H16	1000370-34-1	87
Peak Number 41 Tridecane Concentration Rank 37					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
14.193	2.7 ug/sam	6169320	Benzene-d6	7.702	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Tridecane	184	C13H28	900629-50-5	83
Peak Number 43 1H-Indene, 2,3-dihydro-4,7-... Concentration Rank 29					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
14.307	3.8 ug/sam	8790180	Benzene-d6	7.702	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	94
2	1H-Indene, 2,3-dihydro-1,2-dimet...	146	C11H14	017057-82-8	94

Peak Number 47 1H-Indene, 2,3-dihydro-4,7-... Concentration Rank 36					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
14.466	2.9 ug/sam	6770670	Benzene-d6	7.702	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	96
2	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	96
Peak Number 49 Benzene, pentamethyl- Concentration Rank 31					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
14.617	3.4 ug/sam	7966320	Benzene-d6	7.702	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, pentamethyl-	148	C11H16	000700-12-9	95
2	Benzene, pentamethyl-	148	C11H16	000700-12-9	91
Peak Number 55 Naphthalene, 2-methyl- Concentration Rank 18					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
14.956	6.8 ug/sam	15664800	Benzene-d6	7.702	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	95
2	Naphthalene, 1-methyl-	142	C11H10	000090-12-9	94
Peak Number 56 Tetradecane Concentration Rank 38					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
15.016	2.5 ug/sam	5821540	Benzene-d6	7.702	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Tetradecane	198	C14H30	000620-56-4	90
2	Hexadecane	226	C16H34	000344-76-3	87

SOURCE TESTING NZ

Peak Number	59	Naphthalene, 1-methyl-	Concentration Rank	25	
R.T.	EstCnc	Area	Relative to ISTD	R.T.	
15.142	4.8 ug/sam	11150900	Benzene-d6	7.908	
Hit# of	5	Tentative ID	MM MolForm	CAS#	Qual
1		Naphthalene, 1-methyl-	142 C11H10	000090-12-0	95
2		Naphthalene, 2-methyl-	142 C11H10	000091-57-6	94

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 TIC Integration Parameters: RTEINT.e

VOC for NIOSH

Peak Number 1 1-Propanol, 2-methyl- Concentration Rank 49

R.T.	EstConc	Area	Relative to ISTD	R.T.	
6.818	10.1 ug/sam	17896500	Benzene-d6	7.703	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Propanol, 2-methyl-	74	C4H10O	000078-83-1	90
2	1-Propanol, 2-methyl-	74	C4H10O	000078-83-1	72

Peak Number 2 1-Propanol, 2-methyl- Concentration Rank 31

R.T.	EstConc	Area	Relative to ISTD	R.T.	
6.891	41.7 ug/sam	73691600	Benzene-d6	7.703	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Propanol, 2-methyl-	74	C4H10O	000078-83-1	80
2	1-Propanol, 2-methyl-	74	C4H10O	000078-83-1	80

Peak Number 3 1-Butanol Concentration Rank 30

R.T.	EstConc	Area	Relative to ISTD	R.T.	
7.370	45.2 ug/sam	79830400	Benzene-d6	7.703	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Butanol	74	C4H10O	000071-36-3	91
2	1-Butanol	74	C4H10O	000071-36-3	86

Peak Number 4 1-Butanol Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	R.T.	
7.423	197.9 ug/sam	349422000	Benzene-d6	7.703	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Butanol	74	C4H10O	000071-36-3	90
2	1-Butanol	74	C4H10O	000071-36-3	83

Peak Number 5 Formic acid, butyl ester Concentration Rank 69

R.T.	EstConc	Area	Relative to ISTD	R.T.	
8.490	1.7 ug/sam	3043070	Benzene-d6	7.703	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Formic acid, butyl ester	102	C5H10O2	000592-81-7	74
2	Octane, 2,3,4-trimethyl-, (2.s1...	100	C6H12O	632347-12-9	72

Peak Number 6 2-Butanone, oxime Concentration Rank 46

R.T.	EstConc	Area	Relative to ISTD	R.T.	
9.199	13.3 ug/sam	23476700	Benzene-d6	7.703	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Butanone, oxime	87	C4H8NO	000096-29-7	93
2	2-Butanone, oxime	87	C4H8NO	000096-29-7	87

Peak Number 7 3-Penten-2-one, 4-methyl- Concentration Rank 51

R.T.	EstConc	Area	Relative to ISTD	R.T.	
9.693	8 ug/sam	14059700	Benzene-d6	7.703	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
2	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91

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Peak Number 8 Acetic acid, butyl ester Concentration Rank 39						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
9.723	22.3 ug/sam	39315500	Benzene-d6	7.703		
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual	
1	Acetic acid, butyl ester	116	C8H12O2	000123-86-4	83	
2	Acetic acid, butyl ester	116	C8H12O2	000123-86-4	72	
Peak Number 11 Cyclopentane, propyl- Concentration Rank 57						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
10.124	5 ug/sam	8832750	Benzene-d6	7.703		
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual	
1	Cyclopentane, propyl-	112	C8H16	002040-96-2	96	
2	Cyclopentane, propyl-	112	C8H16	002040-96-2	95	
Peak Number 14 1-Methoxy-2-propyl acetate Concentration Rank 1						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
10.367	708.9 ug/sam	1251670000	Benzene-d6	7.703		
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual	
1	1-Methoxy-2-propyl acetate	132	C6H12O3	000108-65-6	72	
Peak Number 17 Ethanol, 2-butoxy- Concentration Rank 40						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
10.683	22.2 ug/sam	39195400	Benzene-d6	7.703		
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual	
1	Ethanol, 2-butoxy-	118	C8H18O2	000111-76-2	91	
2	Ethanol, 2-butoxy-	118	C8H18O2	000111-76-2	91	

Peak Number 19 Anisole Concentration Rank 65						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
11.235	2 ug/sam	3485850	Benzene-d6	7.703		
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual	
1	Anisole	108	C7H8O	000100-66-3	94	
2	Anisole	108	C7H8O	000100-66-3	93	
Peak Number 20 (1S)-2,6,6-Trimethylbicyclo... Concentration Rank 63						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
11.419	2.8 ug/sam	4958620	Benzene-d6	7.703		
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual	
1	(1S)-2,6,6-Trimethylbicyclo[3.1.1]heptane	136	C10H16	007785-26-4	96	
2	(1S)-2,6,6-Trimethylbicyclo[3.1.1]heptane	136	C10H16	007785-70-8	95	
Peak Number 22 Benzene, 1-ethyl-2-methyl- Concentration Rank 24						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
11.681	65.1 ug/sam	116752000	Benzene-d6	7.703		
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual	
1	Benzene, 1-ethyl-2-methyl-	120	C9H12	000620-14-4	95	
2	Benzene, 1-ethyl-2-methyl-	120	C9H12	000620-14-4	95	
Peak Number 23 Benzene, 1-ethyl-2-methyl- Concentration Rank 33						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
11.716	35.8 ug/sam	63121600	Benzene-d6	7.703		
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual	
1	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	95	
2	Benzene, 1-ethyl-2-methyl-	120	C9H12	000622-56-8	91	

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Peak Number 25 Benzene, 1-ethyl-2-methyl- Concentration Rank 26					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
11.304	59.9 ug/sam	105779000	Benzene-d6	7.703	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	95
2	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	95
Peak Number 27 o-Cymene Concentration Rank 22					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.200	73.2 ug/sam	129247000	Benzene-d6	7.703	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	o-Cymene	134	C10H14	000527-84-4	97
2	p-Cymene	134	C10H14	000099-87-6	97
Peak Number 28 Benzene, 1,2,3-trimethyl- Concentration Rank 9					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.370	415.1 ug/sam	732839000	Benzene-d6	7.703	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	91
2	Mesitylene	120	C9H12	000108-67-8	91
Peak Number 29 Benzene, 1,3-diethyl- Concentration Rank 16					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.444	214.8 ug/sam	379144000	Benzene-d6	7.703	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,3-diethyl-	134	C10H14	000141-93-5	96
2	Benzene, 1,3-diethyl-	134	C10H14	000141-93-5	94

Peak Number 30 Benzene, 1,1'-[11-ethenyl-1,1... Concentration Rank 3					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.487	530.3 ug/sam	936324000	Benzene-d6	7.703	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,1'-(1-ethenyl-1,3-pro...	222	C12H18	062141-97-7	80
2	Benzene, 1-propenyl-	118	C9H10	000637-50-3	70
Peak Number 31 1,3,8-p-Menthatriene Concentration Rank 2					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.534	605.6 ug/sam	1069330000	Benzene-d6	7.703	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,3,8-p-Menthatriene	134	C10H14	018368-95-1	90
2	Benzene, 1-ethyl-3,5-dimethyl-	134	C10H14	000934-74-7	76
Peak Number 32 Indene Concentration Rank 25					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.612	61.1 ug/sam	107907000	Benzene-d6	7.703	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Indene	116	C9H8	000098-13-8	86
2	Benzene, 1-propynyl-	116	C9H8	000673-32-5	86
Peak Number 33 Benzene, 1-methyl-3-propyl- Concentration Rank 19					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.668	197.2 ug/sam	348090000	Benzene-d6	7.703	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-3-propyl-	134	C10H14	001074-43-7	91
2	Benzene, 1-methyl-6-propyl-	134	C10H14	001074-55-1	91

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Peak Number 31 1,3,8-p-Menthatriene Concentration Rank 12					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.743	366.3 ug/sam	647763000	Benzene-d6	7.703	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,3,8-p-Menthatriene	134	C10H14	018368-95-1	91
2	2,6-Dimethyl-1,3,5,7-octatetraen...	134	C10H14	000460-01-5	80
Peak Number 38 Benzene, 2-ethyl-1,3-dimethyl- Concentration Rank 21					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.916	122 ug/sam	215485000	Benzene-d6	7.703	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 2-ethyl-1,3-dimethyl-	134	C10H14	002870-04-4	93
2	Benzene, 1-methyl-3-(1-methyleth...	134	C10H14	000535-77-3	90
Peak Number 39 Pentanedioic acid, dimethyl... Concentration Rank 8					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.953	433 ug/sam	754465000	Benzene-d6	7.703	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentanedioic acid, dimethyl ester	150	C7H12O4	001119-40-0	90
Peak Number 40 Benzene, 2-ethyl-1,4-dimethyl- Concentration Rank 17					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.040	214.7 ug/sam	379086000	Benzene-d6	7.703	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	007359-88-3	94
2	Benzene, 1-ethyl-2,3-dimethyl-	134	C10H14	000933-98-2	94

Peak Number 45 Benzene, 1-methyl-4-(1-meth... Concentration Rank 34					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.251	32.3 ug/sam	56988000	Benzene-d6	7.703	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-4-(1-methylpro...	148	C11H16	001595-16-0	70
Peak Number 48 Benzene, 1-methyl-4-(1-meth... Concentration Rank 28					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.455	51.1 ug/sam	90261700	Benzene-d6	7.703	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-4-(1-methylpro...	148	C11H16	001595-16-0	87
Peak Number 49 Benzene, 1-ethyl-3,5-dimethyl- Concentration Rank 9					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.508	481.7 ug/sam	850440000	Benzene-d6	7.703	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-3,5-dimethyl-	134	C10H14	000934-74-7	91
2	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	91
Peak Number 50 1H-Indene, 3-methyl- Concentration Rank 28					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.600	23.7 ug/sam	41795700	Benzene-d6	7.703	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 3-methyl-	130	C10H10	000767-60-2	91
2	1H-Indene, 1-methyl-	130	C10H10	000767-59-9	91

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Peak Number 51 Benzene, pentamethyl- Concentration Rank 43					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.076	19.9 ug/sam	35163300	Benzene-d6	7.703	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, pentamethyl-	148	C11H16	000700-12-9	91
2	Benzene, 2,4-dimethyl-1-(1-methyl-...	148	C11H16	004706-89-2	90
Peak Number 52 Hexanedioic acid, dimethyl ... Concentration Rank 15					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.765	266.2 ug/sam	469985000	Benzene-d6	7.703	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexanedioic acid, dimethyl ester	174	C8H14O4	000627-93-0	87
2	Hexanedioic acid, dimethyl ester	174	C8H14O4	000627-93-0	87
Peak Number 53 Benzene, 2,4-dimethyl-1-(1-... Concentration Rank 32					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.836	36.9 ug/sam	65186100	Benzene-d6	7.703	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 2,4-dimethyl-1-(1-methyl-...	148	C11H16	004706-89-2	90
2	Benzene, 1-ethyl-2,4,5-trimethyl-	148	C11H16	017851-27-3	90
Peak Number 56 Benzene, (1-ethyl-1-propenyl)- Concentration Rank 45					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
14.096	16.8 ug/sam	29758500	Benzene-d6	7.703	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, (1-ethyl-1-propenyl)-	146	C12H14	004701-26-4	91
2	2-Ethyl-2,3-dihydro-1H-indene	146	C12H14	056147-63-8	72

Peak Number 57 Benzene, 1-(1,1-dimethyleth... Concentration Rank 35					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
14.127	30.1 ug/sam	53175700	Benzene-d6	7.703	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-(1,1-dimethylethyl)-3...	148	C11H16	001075-38-3	86
2	Benzene, 1-ethyl-3-(1-methylethyl)-	148	C11H16	004920-99-4	78
Peak Number 59 Benzene, 1-ethyl-3,5-dimethyl- Concentration Rank 60					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
14.248	3.8 ug/sam	6738940	Benzene-d6	7.703	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-3,5-dimethyl-	134	C10H14	000934-74-7	72
2	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	001750-88-9	72
Peak Number 60 1H-Indene, 2,3-dihydro-4,7-... Concentration Rank 27					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
14.307	56.8 ug/sam	100243000	Benzene-d6	7.703	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	95
2	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	95
Peak Number 61 Benzene, 2,4-dimethyl-1-(1-... Concentration Rank 44					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
14.400	17 ug/sam	25923000	Benzene-d6	7.703	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 2,4-dimethyl-1-(1-methyl-...	162	C12H18	001483-66-9	90
2	Benzene, 1,3,5-trimethyl-2-propyl-	162	C12H18	004810-64-2	81

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Peak Number 62 1H-Indene, 2,3-dihydro-4,7-... Concentration Rank 29					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
14.462	48.3 ug/sam	85596100	Benzene-d6	7.703	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	96
2	1H-Indene, 2,3-dihydro-1,3-dimet...	146	C11H14	004175-53-5	95
Peak Number 64 Benzene, pentamethyl- Concentration Rank 23					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
14.818	66.6 ug/sam	117543000	Benzene-d6	7.703	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, pentamethyl-	148	C11H16	000700-12-9	94
2	Benzene, 1,3-dimethyl-5-(1-methy...	148	C11H16	004706-90-5	91
Peak Number 65 1H-Indene, 2,3-dihydro-1,2-... Concentration Rank 37					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
14.646	27.6 ug/sam	48682400	Benzene-d6	7.703	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-1,2-dimet...	146	C11H14	017057-82-8	91
2	1H-Indene, 2,3-dihydro-1,3-dimet...	146	C11H14	004175-53-5	91
Peak Number 69 Bicyclo[4.2.0]octa-1,3,5-tr... Concentration Rank 56					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
14.867	5.1 ug/sam	9026400	Benzene-d6	7.703	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Bicyclo[4.2.0]octa-1,3,5-triene,...	160	C12H16	078920-29-3	83
2	1H-Indene, 2,3-dihydro-4-propyl-	160	C12H16	092013-16-8	83

Peak Number 70 Naphthalene, 2-methyl- Concentration Rank 14					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
14.958	306.4 ug/sam	540867000	Benzene-d6	7.703	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	96
2	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	95
Peak Number 71 Naphthalene, 6-ethyl-1,2,3-... Concentration Rank 47					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
15.012	12.2 ug/sam	21641700	Benzene-d6	7.703	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 6-ethyl-1,2,3,4-tet...	160	C12H16	022531-20-0	83
Peak Number 72 Phenylidimethylvinylsilane Concentration Rank 64					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
15.087	2.3 ug/sam	4101720	Benzene-d6	7.703	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Phenylidimethylvinylsilane	162	C10H14Si	001125-26-4	78
2	Benzene, 1-(1,1-dimethylethyl)-3...	162	C12H18	000098-19-1	72
Peak Number 73 Naphthalene, 2-methyl- Concentration Rank 20					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
15.144	174.3 ug/sam	307797000	Benzene-d6	7.703	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	96
2	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	95

ISLR Sample: 2078286/12
 Conversion Factor 4
 TIC Integration Parameters: RTEINT.e

VOC for NIOSH

Peak Number 2 1-Propanol, 2-methyl- Concentration Rank 32

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.889	39 ug/sam	82236500	Benzene-d6	7.701

Hit# of 5 Tentative ID MW MolForm CAS# Qual

1	1-Propanol, 2-methyl-	74	C4H10O	000078-83-1	80
2	1-Propanol, 2-methyl-	74	C4H10O	000078-83-1	72

Peak Number 3 1-Butanol Concentration Rank 30

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.367	41.9 ug/sam	88243600	Benzene-d6	7.701

Hit# of 5 Tentative ID MW MolForm CAS# Qual

1	1-Butanol	74	C4H10O	000071-36-3	91
2	1-Butanol	74	C4H10O	000071-36-3	90

Peak Number 4 1-Butanol Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.424	195.6 ug/sam	412242000	Benzene-d6	7.701

Hit# of 5 Tentative ID MW MolForm CAS# Qual

1	1-Butanol	74	C4H10O	000071-36-3	90
2	1-Butanol	74	C4H10O	000071-36-3	83

Peak Number 5 Formic acid, butyl ester Concentration Rank 69

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.497	1.8 ug/sam	3810420	Benzene-d6	7.701

Hit# of 5 Tentative ID MW MolForm CAS# Qual

1	Formic acid, butyl ester	102	C9H10O2	000392-84-7	83
2	Formic acid, butyl ester	102	C9H10O2	000392-84-7	83

Peak Number 6 2-Butanone, oxime Concentration Rank 47

R.T.	EstConc	Area	Relative to ISTD	R.T.
9.198	12.8 ug/sam	27051500	Benzene-d6	7.701

Hit# of 5 Tentative ID MW MolForm CAS# Qual

1	2-Butanone, oxime	87	C4H9NO	000096-29-7	93
2	2-Butanone, oxime	87	C4H9NO	000096-29-7	87

Peak Number 7 Hexanal Concentration Rank 74

R.T.	EstConc	Area	Relative to ISTD	R.T.
9.627	0.9 ug/sam	1844100	Benzene-d6	7.701

Hit# of 5 Tentative ID MW MolForm CAS# Qual

1	Hexanal	100	C6H12O	000066-25-1	86
2	Hexanal	100	C6H12O	000066-25-1	86

Peak Number 8 3-Penten-2-one, 4-methyl- Concentration Rank 51

R.T.	EstConc	Area	Relative to ISTD	R.T.
9.693	8 ug/sam	16744900	Benzene-d6	7.701

Hit# of 5 Tentative ID MW MolForm CAS# Qual

1	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
2	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91

Peak Number 9 Acetic acid, butyl ester Concentration Rank 41					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
9.723	20.4 ug/sam	42945900	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetic acid, butyl ester	116	C6H12O2	000123-86-4	83
2	Acetic acid, butyl ester	116	C6H12O2	000123-86-4	72
Peak Number 12 Cyclopentane, propyl- Concentration Rank 56					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
10.124	4.9 ug/sam	10389700	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentane, propyl-	112	C8H16	002040-96-2	96
2	Cyclopentane, propyl-	112	C8H16	002040-96-2	95
Peak Number 19 Ethanol, 2-butoxy- Concentration Rank 33					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
10.884	22.9 ug/sam	48322700	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethanol, 2-butoxy-	118	C6H14O2	000111-76-2	91
2	Ethanol, 2-butoxy-	118	C6H14O2	000111-76-2	91
Peak Number 21 Anisole Concentration Rank 65					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
11.235	2 ug/sam	4137490	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Anisole	108	C7H8O	000100-66-3	94
2	Anisole	108	C7H8O	000100-66-3	93

Peak Number 22 .alpha.-Pinene Concentration Rank 61					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
11.419	3.2 ug/sam	6707930	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	.alpha.-Pinene	136	C10H16	000080-56-8	95
2	(1R)-2,6,6-Trimethylbicyclo[3.1.1]	136	C10H16	007783-70-8	95
Peak Number 24 Benzene, 1-ethyl-3-methyl- Concentration Rank 25					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
11.681	53.8 ug/sam	113355000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	95
2	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	95
Peak Number 25 Benzene, 1-ethyl-2-methyl- Concentration Rank 34					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
11.716	29.2 ug/sam	61485200	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	94
2	Heptylene	120	C9H12	000108-67-8	91
Peak Number 27 Benzene, 1-ethyl-2-methyl- Concentration Rank 27					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
11.804	50 ug/sam	105340000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	95
2	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	94

Peak Number 29		o-Cymene		Concentration Rank 23	
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.200	60.4 ug/sam	127242000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	o-Cymene	134	C10H14	00527-84-4	97
2	o-Cymene	134	C10H14	00527-84-4	97
Peak Number 30		Benzene, 1,2,3-trimethyl-		Concentration Rank 11	
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.370	349.3 ug/sam	736230000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	91
2	Mesitylene	120	C9H12	000108-67-8	91
Peak Number 31		Benzene, 1,3-diethyl-		Concentration Rank 19	
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.443	178.7 ug/sam	376714000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,3-diethyl-	134	C10H14	000141-93-5	96
2	Benzene, 1,3-diethyl-	134	C10H14	000141-93-5	94
Peak Number 32		Benzene, 1,1'-(1-ethenyl-1,...		Concentration Rank 2	
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.487	443.8 ug/sam	935400000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,1'-(1-ethenyl-1,3-pro...	222	C17H18	061145-97-7	72
2	Benzene, 1-propenyl-	118	C9H10	000627-50-3	70

Peak Number 33		1,3,8-p-Menthatriene		Concentration Rank 1	
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.533	509.3 ug/sam	1073570000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,3,8-p-Menthatriene	134	C10H14	018368-95-1	90
2	Benzene, 1-ethyl-3,5-dimethyl-	134	C10H14	030934-74-7	76
Peak Number 34		Indene		Concentration Rank 26	
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.612	51.8 ug/sam	109199000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Indene	116	C9H8	000095-13-6	86
2	Benzene, 1-propenyl-	116	C9H8	000673-32-5	86
Peak Number 35		Benzene, 1-methyl-3-propyl-		Concentration Rank 20	
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.668	164.4 ug/sam	346400000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-3-propyl-	134	C10H14	001074-43-7	91
2	Benzene, 1-methyl-4-propyl-	134	C10H14	001074-55-1	91
Peak Number 36		1,3,8-p-Menthatriene		Concentration Rank 12	
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.743	306.6 ug/sam	646181000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,3,8-p-Menthatriene	134	C10H14	018368-95-1	91
2	2,6-Dimethyl-1,3,5,7-octatetraen...	134	C10H14	008460-01-5	80

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Peak Number 40 Benzene, 1-ethyl-2,4-dimethyl- Concentration Rank 22					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.916	101.6 ug/sam	214220000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2,4-dimethyl-	134	C10H14	000976-41-9	93
2	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	001756-88-9	87
Peak Number 41 Pentanedioic acid, dimethyl... Concentration Rank 8					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.954	385.4 ug/sam	812467000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentanedioic acid, dimethyl ester	160	C7H12O4	001119-40-0	83
Peak Number 42 Benzene, 4-ethyl-1,2-dimethyl- Concentration Rank 18					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.040	181.8 ug/sam	383240000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 4-ethyl-1,2-dimethyl-	134	C10H14	000934-80-5	94
2	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	001756-88-9	94
Peak Number 47 Benzene, 1-methyl-4-(1-meth... Concentration Rank 35					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.252	27.4 ug/sam	5763000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-4-(1-methylpro...	148	C11H16	001595-16-0	76

Peak Number 50 Benzene, 1-methyl-4-(1-meth... Concentration Rank 29					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.455	43.8 ug/sam	92341000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-4-(1-methylpro...	148	C11H16	001595-16-0	76
Peak Number 51 Benzene, 1,2,3,4-tetramethyl- Concentration Rank 5					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.508	408.9 ug/sam	861913000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	90
2	1,3-Cyclopentadiene, 1,2,3,4-tet...	134	C10H14	076089-59-3	87
Peak Number 52 1,4-Dihydronaphthalene Concentration Rank 40					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.600	23.6 ug/sam	43444900	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,4-Dihydronaphthalene	130	C10H10	000612-17-9	94
2	1H-Indene, 1-methyl-	130	C10H10	000767-59-9	93
Peak Number 53 Benzene, pentamethyl- Concentration Rank 43					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.676	17 ug/sam	35895100	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, pentamethyl-	148	C11H16	000700-12-9	91
2	Benzene, 1,3-dimethyl-5-(1-methyl...	148	C11H16	004706-90-5	91

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Peak Number 54 Hexanedioic acid, dimethyl ... Concentration Rank 15					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.766	237.9 ug/sam	501507000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexanedioic acid, dimethyl ester	174	CBH1404	000627-93-0	87
2	Hexanedioic acid, dimethyl ester	174	CBH1404	000627-93-0	87
Peak Number 55 Benzene, 1,3-dimethyl-5-(1-... Concentration Rank 33					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.836	31.4 ug/sam	66145700	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,3-dimethyl-5-(1-methyl-2-propyl-1-ene)	148	C11H16	004706-90-5	90
2	Benzene, 1-ethyl-2,4,5-trimethyl-	148	C11H16	017851-27-3	90
Peak Number 57 Benzene, 1,3,5-trimethyl-2-... Concentration Rank 72					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
14.035	1.4 ug/sam	3049020	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,3,5-trimethyl-2-propyl-	162	C12H18	004810-04-2	74
2	Benzene, 2,4-dimethyl-1-(1-methyl-2-propyl-1-ene)	162	C12H18	001483-60-9	64
Peak Number 58 Naphthalene, 1,2,3,4-tetrahydro-... Concentration Rank 43					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
14.095	14.4 ug/sam	30450600	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-	146	C11H14	002809-64-5	70

Peak Number 59 4-tert-Butyltoluene Concentration Rank 36					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
14.127	25.4 ug/sam	53605800	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4-tert-Butyltoluene	148	C11H16	000098-51-1	72
2	2-tert-Butyltoluene	148	C11H16	001074-92-6	72
Peak Number 61 Benzene, 1-ethyl-3,5-dimethyl- Concentration Rank 62					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
14.248	3 ug/sam	6298450	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-3,5-dimethyl-	134	C12H14	000994-74-7	83
2	Benzene, 1-ethyl-4-(2-methylpropyl)-	162	C12H18	100319-40-2	74
Peak Number 62 1H-Indene, 2,3-dihydro-4,7-... Concentration Rank 28					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
14.307	48.2 ug/sam	101790000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-4,7-dimethyl-	146	C11H14	006682-71-9	96
2	1H-Indene, 2,3-dihydro-4,7-dimethyl-	146	C11H14	006682-71-9	96
Peak Number 63 Benzene, 2,4-dimethyl-1-(1-... Concentration Rank 46					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
14.400	13.9 ug/sam	29238100	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 2,4-dimethyl-1-(1-methyl-2-propyl-1-ene)	162	C12H18	001483-60-9	90
2	Benzene, 1,3,5-trimethyl-2-propyl-	162	C12H18	004810-04-2	81

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Peak Number 64 1H-Indene, 2,3-dihydro-4,7-... Concentration Rank 31					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
14.463	40.5 ug/sam	85295900	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9 97	
2	1H-Indene, 2,3-dihydro-1,3-dimet...	146	C11H14	004175-53-5 95	
Peak Number 66 Benzene, pentamethyl- Concentration Rank 24					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
14.617	55.5 ug/sam	116955000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, pentamethyl-	148	C11H16	000700-12-9 95	
2	1,5,6,7-Tetramethylbicyclo[3.2.0]...	148	C11H16	134329-46-7 91	
Peak Number 67 1H-Indene, 2,3-dihydro-1,2-... Concentration Rank 38					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
14.646	23.4 ug/sam	49427300	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-1,2-dimet...	146	C11H14	017057-82-8 91	
2	1H-Indene, 2,3-dihydro-1,6-dimet...	146	C11H14	017059-48-2 91	
Peak Number 71 Naphthalene, 1-ethyl-1,2,3-... Concentration Rank 59					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
14.858	3.9 ug/sam	8264610	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1-ethyl-1,2,3,4-tet...	160	C12H16	013556-56-6 70	

Peak Number 72 Naphthalene, 2-methyl- Concentration Rank 14					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
14.958	262.4 ug/sam	553137000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2-methyl-	142	C11H10	000091-57-6 96	
2	Naphthalene, 1-methyl-	142	C11H10	000090-12-0 95	
Peak Number 73 Naphthalene, 6-ethyl-1,2,3-... Concentration Rank 49					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
15.011	19.1 ug/sam	21216400	Benzene-d6	7.701	
Hit# of 3	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 6-ethyl-1,2,3,4-tet...	160	C12H16	022531-20-0 90	
Peak Number 74 Ethanone, 1-(2,4,6-trimethy... Concentration Rank 70					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
15.088	1.6 ug/sam	3398000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethanone, 1-(2,4,6-trimethylphen...	162	C11H14O	001667-01-2 72	
2	Benzene, 1,2,4-trimethyl-5-(1-me...	162	C12H18	010222-95-4 72	
Peak Number 75 Naphthalene, 2-methyl- Concentration Rank 21					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
15.144	145.8 ug/sam	315784000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2-methyl-	142	C11H10	000091-57-6 96	
2	Naphthalene, 1-methyl-	142	C11H10	000090-12-0 95	

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LSR Sample: 2078286/13
 Conversion Factor: 4
 TIC Integration Parameters: RTEINT.e
 VOC for NIOSH

Peak Number 2 1-Propanol, 2-methyl- Concentration Rank 38

R.T.	EstConc	Area	Relative to ISTD	R.T.	
6.891	3.2 ug/sam	5178680	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Propanol, 2-methyl-	74	C4H10O	000078-83-1	86
2	1-Propanol, 2-methyl-	74	C4H10O	000078-83-1	72

Peak Number 3 1-Butanol Concentration Rank 22

R.T.	EstConc	Area	Relative to ISTD	R.T.	
7.367	19.7 ug/sam	32295500	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Butanol	74	C4H10O	080071-36-3	86
2	1-Butanol	74	C4H10O	080071-36-3	83

Peak Number 4 1-Butanol Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.	
7.415	108.2 ug/sam	173338000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Butanol	74	C4H10O	000071-36-3	91
2	1-Butanol	74	C4H10O	000071-36-3	90

Peak Number 5 3-Penten-2-one, 4-methyl- Concentration Rank 35

R.T.	EstConc	Area	Relative to ISTD	R.T.	
9.693	4 ug/sam	6487160	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
2	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91

Peak Number 6 Acetic acid, butyl ester Concentration Rank 26

R.T.	EstConc	Area	Relative to ISTD	R.T.	
9.723	8.9 ug/sam	14568400	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetic acid, butyl ester	116	C6H12O2	000123-86-4	78

Peak Number 9 Cyclopentane, propyl- Concentration Rank 31

R.T.	EstConc	Area	Relative to ISTD	R.T.	
10.123	7.4 ug/sam	12216700	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentane, propyl-	112	C8H16	002040-96-2	97
2	Cyclopentane, propyl-	112	C8H16	002040-96-2	97

Peak Number 10 1-Methyl-2-methylenecyclohexane Concentration Rank 41

R.T.	EstConc	Area	Relative to ISTD	R.T.	
10.137	2 ug/sam	3235950	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Methyl-2-methylenecyclohexane	110	C8H14	002808-75-5	70

Peak Number 13 Cycloheptane, methyl- Concentration Rank 55					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
10.557	0.9 ug/sam	1420410	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cycloheptane, methyl-	112	C8H16	004126-78-7	96
2	Cycloheptane, methyl-	112	C8H16	004126-78-7	94
Peak Number 14 Ethanol, 2-butoxy- Concentration Rank 2					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
10.900	385 ug/sam	630624000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethanol, 2-butoxy-	118	C8H14O2	000111-76-2	83
2	Ethanol, 2-butoxy-	118	C8H14O2	000111-76-2	72
Peak Number 16 (1S)-2,6,6-Trimethylbicyclo... Concentration Rank 43					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
11.418	1.6 ug/sam	2576690	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	(1S)-2,6,6-Trimethylbicyclo[3.1.1]...	136	C10H16	007785-26-4	97
2	(1R)-2,6,6-Trimethylbicyclo[3.1.1]...	136	C10H16	007785-70-8	95
Peak Number 17 Benzene, 1-ethyl-3-methyl- Concentration Rank 12					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
11.681	58 ug/sam	95004600	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	95
2	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	95

Peak Number 18 Benzene, 1-ethyl-2-methyl- Concentration Rank 16					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
11.716	27.2 ug/sam	44548300	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	94
2	Mesitylene	120	C9H12	000108-67-8	91
Peak Number 20 Benzene, 1-ethyl-2-methyl- Concentration Rank 19					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
11.903	24.2 ug/sam	39580100	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	95
2	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	94
Peak Number 22 o-Cymene Concentration Rank 29					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.198	8.2 ug/sam	13482300	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	o-Cymene	134	C10H14	000527-84-4	97
2	p-Cymene	134	C10H14	000099-87-6	97
Peak Number 23 Mesitylene Concentration Rank 9					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.365	85.6 ug/sam	141916000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Mesitylene	120	C9H12	000108-67-8	97
2	Mesitylene	120	C9H12	000108-67-8	97

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Peak Number 24 Benzene, 1,3-diethyl- Concentration Rank 23					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.440	18.6 ug/sam	30424600	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,3-diethyl-	134	C10H14	000141-93-5 95	
2	Benzene, 1,2-diethyl-	134	C10H14	000135-01-3 94	
Peak Number 25 Benzene, 1-methyl-3-propyl- Concentration Rank 10					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.477	74.1 ug/sam	121419000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-3-propyl-	134	C10H14	001074-43-7 70	
Peak Number 26 Benzene, 2-ethyl-1,4-dimethyl- Concentration Rank 5					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.529	112.9 ug/sam	184918000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	001758-88-9 91	
2	Benzene, 1-ethyl-3,5-dimethyl-	134	C10H14	000554-74-7 91	
Peak Number 27 Benzene, 1,2-diethyl- Concentration Rank 34					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.605	4 ug/sam	6604420	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2-diethyl-	134	C10H14	000135-01-3 93	
2	Benzene, 1,7-diethyl-	134	C10H14	000135-01-3 91	

Peak Number 28 Benzene, 1-methyl-2-propyl- Concentration Rank 18					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.664	24.5 ug/sam	40124800	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-2-propyl-	134	C10H14	001074-17-5 94	
2	Benzene, 1-methyl-4-propyl-	134	C10H14	001074-55-1 91	
Peak Number 29 Benzene, 2-ethyl-1,4-dimethyl- Concentration Rank 14					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.738	53.1 ug/sam	86931400	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	001758-88-9 97	
2	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	001758-88-9 96	
Peak Number 30 Benzene, 1-ethyl-2,4-dimethyl- Concentration Rank 13					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.771	53.9 ug/sam	88245300	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2,4-dimethyl-	134	C10H14	000874-41-9 94	
2	m-Cymene	134	C10H14	000527-84-4 94	
Peak Number 31 Benzene, 1-ethyl-2,4-dimethyl- Concentration Rank 7					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.813	107.4 ug/sam	175950000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2,4-dimethyl-	134	C10H14	000874-41-9 97	
2	Benzene, 2-ethyl-1,3-dimethyl-	134	C10H14	002870-64-4 95	

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Peak Number 32 Benzene, 1-ethyl-4-(1-methy... Concentration Rank 40					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.861	2.8 ug/sam	4551090	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-4-(1-methylethyl)-	148	C11H16	004218-48-8	93
2	Benzene, 1-ethyl-2,4,5-trimethyl-	148	C11H16	017851-27-3	72
Peak Number 33 Benzene, 2-ethyl-1,3-dimethyl- Concentration Rank 24					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.913	13.5 ug/sam	22099400	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 2-ethyl-1,3-dimethyl-	134	C10H14	002870-04-4	93
2	Benzene, 2-ethyl-1,3-dimethyl-	134	C10H14	002870-04-4	93
Peak Number 34 Pentanedioic acid, dimethyl... Concentration Rank 20					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.938	23.3 ug/sam	38105000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentanedioic acid, dimethyl ester	150	C7H12O4	001119-40-0	78
Peak Number 35 Benzene, 2-ethyl-1,4-dimethyl- Concentration Rank 15					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.038	26.8 ug/sam	47115300	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	001758-88-9	95
2	Benzene, 1-ethyl-2,4-dimethyl-	134	C10H14	003874-41-9	95

Peak Number 37 4-tert-Butyltoluene Concentration Rank 56					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.111	0.9 ug/sam	1417980	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4-tert-Butyltoluene	148	C11H16	000098-51-1	72
2	4-tert-Butyltoluene	148	C11H16	000098-51-1	72
Peak Number 38 Benzene, 1,2,3,5-tetramethyl- Concentration Rank 8					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.157	94.4 ug/sam	154733000	Benzene-d6	7.701	
Hit# of 3	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	97
2	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	97
Peak Number 39 Benzene, 1,2,3,4-tetramethyl- Concentration Rank 3					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.191	136.7 ug/sam	223968000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	97
2	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	97
Peak Number 40 Benzene, 1,3-diethyl-5-methyl- Concentration Rank 32					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.247	5.5 ug/sam	9015680	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,3-diethyl-5-methyl-	148	C11H16	002050-24-0	90

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Peak Number 42 1H-Indene, 2,3-dihydro-4-me... Concentration Rank 21					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.373	21.8 ug/sam	35754100	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-4-methyl-	132	C10H12	00024-22-6	98
2	Benzene, 1-ethenyl-4-ethyl-	132	C10H12	003454-07-7	90
Peak Number 44 Benzene, 1-methyl-4-(1-meth... Concentration Rank 27					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.453	6.5 ug/sam	13930400	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-4-(1-methylpro...	148	C11H16	001595-36-0	87
2	Benzene, (1,1-dimethylpropyl)-	148	C11H16	002049-95-8	72
Peak Number 45 Benzene, 1,2,3,5-tetramethyl- Concentration Rank 11					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.506	72.2 ug/sam	118311000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	94
2	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	92
Peak Number 47 Naphthalene, 1,2,3,4-tetra... Concentration Rank 53					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.613	1 ug/sam	1554690	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-	132	C10H12	000119-64-2	78

Peak Number 48 Benzene, 1,3-dimethyl-5-(1-... Concentration Rank 39					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.675	3 ug/sam	4870650	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,3-dimethyl-5-(1-methy...	148	C11H16	004706-90-5	91
2	Benzene, 2,4-dimethyl-1-(1-methy...	148	C11H16	004706-89-2	90
Peak Number 49 2-Ethylhexyl acrylate Concentration Rank 30					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.708	9.1 ug/sam	13269900	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Ethylhexyl acrylate	184	C11H20O2	000103-11-7	91
2	2-Propenoic acid, 6-methylheptyl...	184	C11H20O2	054774-91-3	91
Peak Number 50 Benzene, pentamethyl- Concentration Rank 17					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.761	25.9 ug/sam	42469300	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, pentamethyl-	148	C11H16	000700-12-9	70
2	Benzene, 1-ethyl-2,4,5-trimethyl-	148	C11H16	017851-27-3	70
Peak Number 51 3,4-Dimethylcumene Concentration Rank 28					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.836	8.3 ug/sam	13655900	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3,4-Dimethylcumene	148	C11H16	000375-34-1	91
2	Benzene, 2,4-dimethyl-1-(1-methy...	148	C11H16	004706-89-2	90

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Peak Number 53 Benzene, 1,3-dimethyl-5-(1-... Concentration Rank 45						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
14.128	1.3 ug/sam	2405120	Benzene-d6	7.701		
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual	
1	Benzene, 1,3-dimethyl-5-(1-methy...	148	C11H16	004706-90-5	83	
2	1-methyl-1-indanol	148	C10H12O	064666-42-8	72	
Peak Number 54 Tridecane Concentration Rank 55						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
14.192	0.8 ug/sam	1511370	Benzene-d6	7.701		
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual	
1	Tridecane	184	C13H28	000629-50-5	93	
2	Tridecane	184	C13H28	000629-50-5	86	
Peak Number 55 1H-Indene, 2,3-dihydro-4,7-... Concentration Rank 42						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
14.307	1.9 ug/sam	3051760	Benzene-d6	7.701		
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual	
1	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	96	
2	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	95	
Peak Number 56 1H-Indene, 2,3-dihydro-4,7-... Concentration Rank 46						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
14.465	1.3 ug/sam	2185970	Benzene-d6	7.701		
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual	
1	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	96	
2	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	93	

Peak Number 57 Benzene, pentamethyl- Concentration Rank 47						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
14.617	1.3 ug/sam	2077460	Benzene-d6	7.701		
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual	
1	Benzene, pentamethyl-	148	C11H16	000700-12-9	93	
2	Benzene, 1,3-dimethyl-5-(1-methy...	148	C11H16	004706-90-5	91	
Peak Number 58 Naphthalene, 1-methyl- Concentration Rank 37						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
14.957	3.3 ug/sam	5405770	Benzene-d6	7.701		
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual	
1	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	95	
2	Naphthalene, 2-methyl-	142	C11H10	000091-37-6	95	
Peak Number 59 Naphthalene, 1-methyl- Concentration Rank 44						
R.T.	EstConc	Area	Relative to ISTD	R.T.		
15.143	1.5 ug/sam	2474850	Benzene-d6	7.701		
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual	
1	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	94	
2	Naphthalene, 2-methyl-	142	C11H10	000091-37-6	91	

SOURCE TESTING NZ

LSR Sample: 2078286/14
 Conversion Factor: 4
 TIC Integration Parameters: RTEINT.e
 VOC for NIOSH

Peak Number	EstConc	Area	Relative to ISTD	Concentration Rank
2	3.6 ug/sam	7327190	Benzene-d6	41
R.T.	6.891			7.701
Hit# of 5	Tentative ID	MW	MolForm	CAS#
1	1-Propanol, 2-methyl-	74	C4H10O	000078-63-1 86
3	1-Butanol			16
R.T.	7.366	21.8 ug/sam	43774700	Benzene-d6
Hit# of 5	Tentative ID	MW	MolForm	CAS#
1	1-Butanol	74	C4H10O	000071-36-3 90
2	1-Butanol	74	C4H10O	000071-36-3 86
4	1-Butanol			4
R.T.	7.418	118.5 ug/sam	238378000	Benzene-d6
Hit# of 5	Tentative ID	MW	MolForm	CAS#
1	1-Butanol	74	C4H10O	000071-36-3 91
2	1-Butanol	74	C4H10O	000071-36-3 90
5	3-Penten-2-one, 4-methyl-			37
R.T.	9.593	4.5 ug/sam	8977380	Benzene-d6
Hit# of 5	Tentative ID	MW	MolForm	CAS#
1	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7 91
2	3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7 91

Peak Number	EstConc	Area	Relative to ISTD	Concentration Rank
6	9.9 ug/sam	19804200	Benzene-d6	24
R.T.	9.723			7.701
Hit# of 5	Tentative ID	MW	MolForm	CAS#
1	Acetic acid, butyl ester	116	C8H12O2	000123-86-4 83
2	Acetic acid, butyl ester	116	C8H12O2	000123-86-4 78
8	Bicyclo[2.2.1]heptane, 2-me...			62
R.T.	10.029	1.4 ug/sam	2710480	Benzene-d6
Hit# of 5	Tentative ID	MW	MolForm	CAS#
1	Bicyclo[2.2.1]heptane, 2-methyl-...	110	C8H14	000872-78-6 83
9	Cyclopentane, propyl-			25
R.T.	10.123	8.8 ug/sam	17593600	Benzene-d6
Hit# of 5	Tentative ID	MW	MolForm	CAS#
1	Cyclopentane, propyl-	112	C8H16	002040-96-2 96
2	Cyclopentane, propyl-	112	C8H16	002040-96-2 95
10	5-Decen-1-ol, (Z)-			51
R.T.	10.157	2.4 ug/sam	4872800	Benzene-d6
Hit# of 5	Tentative ID	MW	MolForm	CAS#
1	5-Decen-1-ol, (Z)-	156	C10H20	051652-47-2 91
2	5-Decen-1-ol, (E)-	156	C10H20	056578-18-8 50

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Peak Number 13 Cyclohexane, 1,1,2-trimethyl- Concentration Rank 58					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
10.489	1.9 ug/sam	3743030	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, 1,1,2-trimethyl-	126	C9H18	007894-26-0	87
2	Cyclohexane, 1,2,4-trimethyl-, (...)	126	C9H18	007667-60-9	70
Peak Number 14 Cycloheptane, methyl- Concentration Rank 64					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
10.558	1.3 ug/sam	2568190	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cycloheptane, methyl-	112	C8H16	004126-78-7	87
2	Cycloheptane, methyl-	112	C8H16	004126-78-7	76
Peak Number 15 Ethanol, 2-butoxy- Concentration Rank 2					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
10.896	256.8 ug/sam	515272000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethanol, 2-butoxy-	118	C8H18O2	000111-76-2	91
2	Ethanol, 2-butoxy-	118	C8H18O2	000111-76-2	90
Peak Number 17 Anisole Concentration Rank 70					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
11.233	1 ug/sam	1984200	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Anisole	108	C7H8O	000100-66-3	95
2	Anisole	108	C7H8O	000100-66-3	94

Peak Number 18 .alpha.-Pinene Concentration Rank 48					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
11.418	2.6 ug/sam	5318900	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	.alpha.-Pinene	136	C10H16	000080-56-8	96
2	(1R)-2,6,6-Trimethylbicyclo[3.1.1]	136	C10H16	007785-70-8	95
Peak Number 21 Benzene, 1-ethyl-3-methyl- Concentration Rank 12					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
11.681	36 ug/sam	72241400	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	95
2	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	95
Peak Number 22 Benzene, 1-ethyl-2-methyl- Concentration Rank 21					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
11.715	17.1 ug/sam	34306000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	95
2	Benzene, 1-ethyl-4-methyl-	120	C9H12	000622-56-8	94
Peak Number 23 Benzene, 1-ethyl-2-methyl- Concentration Rank 19					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
11.903	18 ug/sam	36055100	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	95
2	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	95

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Peak Number 25		o-Cymene		Concentration Rank 30	
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.198	6.4 ug/sam	12857100	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	o-Cymene	134	C10H14	000527-84-4	97
2	p-Cymene	134	C10H14	000959-87-6	97

Peak Number 26		Mesitylene		Concentration Rank 9	
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.365	56.2 ug/sam	112826000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Mesitylene	120	C9H12	000108-67-8	97
2	Mesitylene	120	C9H12	000108-67-8	97

Peak Number 27		Benzene, 1,3-diethyl-		Concentration Rank 23	
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.440	12.8 ug/sam	25752800	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,3-diethyl-	134	C10H14	000141-93-5	96
2	Benzene, 1,4-diethyl-	134	C10H14	000105-05-5	95

Peak Number 29		Benzene, 1-ethyl-3,5-dimethyl-		Concentration Rank 6	
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.529	71.9 ug/sam	144259000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2,5-dimethyl-	134	C10H14	000934-74-7	91
2	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	001758-88-9	91

Peak Number 30		Benzene, 1,2-diethyl-		Concentration Rank 40	
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.604	4 ug/sam	8014650	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2-diethyl-	134	C10H14	000135-01-3	90
2	Benzene, 1,4-diethyl-	134	C10H14	000105-05-5	90

Peak Number 31		Benzene, 1-methyl-4-propyl-		Concentration Rank 20	
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.654	17.2 ug/sam	34442500	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-4-propyl-	134	C10H14	001074-55-1	94
2	Benzene, 1-methyl-2-propyl-	134	C10H14	001074-17-5	94

Peak Number 32		Benzene, 2-ethyl-1,4-dimethyl-		Concentration Rank 15	
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.738	33.4 ug/sam	67135600	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	001758-88-9	97
2	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	001758-88-9	95

Peak Number 33		Benzene, 1-ethyl-2,4-dimethyl-		Concentration Rank 14	
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.771	35.6 ug/sam	67475300	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2,4-dimethyl-	134	C10H14	000874-41-9	94
2	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	91

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Peak Number 34 Benzene, 1-ethyl-2,4-dimethyl- Concentration Rank 7					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.813	67 ug/sam	134314000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2,4-dimethyl-	134	C10H14	000274-01-9 97	
2	Benzene, 2-ethyl-1,3-dimethyl-	134	C10H14	002870-06-4 95	
Peak Number 35 Benzene, 1-ethyl-4-(1-methyl... Concentration Rank 45					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.861	2.6 ug/sam	5247420	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-4-(1-methylethyl)-	148	C11H16	004218-48-8 81	
2	Benzene, 1-ethyl-4-(1-methylethyl)-	148	C11H16	004218-48-8 81	
Peak Number 36 Pentanedioic acid, dimethyl... Concentration Rank 13					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.938	35 ug/sam	70241400	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentanedioic acid, dimethyl ester	160	C7H12O4	001119-40-0 83	
2	Pentanedioic acid, dimethyl ester	160	C7H12O4	001119-40-0 72	
Peak Number 37 Benzene, 1-methyl-4-(1-meth... Concentration Rank 43					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
12.972	3.4 ug/sam	6800900	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-4-(1-methylpro...	148	C11H16	001595-16-0 83	
2	Benzene, 2-ethyl-1,3-dimethyl-	134	C10H14	002870-06-4 81	

Peak Number 38 Benzene, 1-ethyl-2,3-dimethyl- Concentration Rank 17					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.038	19.9 ug/sam	39962200	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2,3-dimethyl-	134	C10H14	000933-98-2 96	
2	Benzene, 2-ethyl-1,3-dimethyl-	134	C10H14	002870-06-4 95	
Peak Number 39 3,4-Dimethylcumene Concentration Rank 65					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.110	1.3 ug/sam	2544320	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3,4-Dimethylcumene	148	C11H16	1000370-34-1 78	
2	Benzene, 1,3-dimethyl-5-(1-methyl...	148	C11H16	004766-90-5 72	
Peak Number 40 Benzene, 1,2,3,4-tetramethyl- Concentration Rank 8					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.157	55.9 ug/sam	114298000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3 97	
2	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7 97	
Peak Number 41 Benzene, 1,2,3,5-tetramethyl- Concentration Rank 5					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.191	82.2 ug/sam	164926000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7 97	
2	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2 97	

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Peak Number 44 1H-Indene, 2,3-dihydro-4-me... Concentration Rank 22					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.373	14.7 ug/sam	29448300	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-4-methyl-	132	C10H12	000824-22-6	94
2	1H-Indene, 2,3-dihydro-5-methyl-	132	C10H12	000874-35-1	93
Peak Number 45 2-Propenal, 3-(2-pyridinyl)... Concentration Rank 29					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.395	6.8 ug/sam	13695600	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Propenal, 3-(2-pyridinylamino)-	148	C8H8N2O	068970-82-1	72
Peak Number 46 Benzene, 1-methyl-4-(1-meth... Concentration Rank 31					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.453	6 ug/sam	12148700	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-4-(1-methylpro...	148	C11H16	001595-16-0	87
2	Benzene, 2-ethyl-1,3-dimethyl-	134	C10H14	002870-04-1	70
Peak Number 47 Benzene, 1,2,3,4-tetramethyl- Concentration Rank 11					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.506	45.2 ug/sam	90773900	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	95
2	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	94

Peak Number 49 Naphthalene, 1,2,3,4-tetra... Concentration Rank 56					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.614	2 ug/sam	4118640	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-	132	C10H12	000119-64-2	90
2	Naphthalene, 1,2,3,4-tetrahydro-	132	C10H12	000119-64-2	87
Peak Number 50 Benzene, pentamethyl- Concentration Rank 42					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.674	3.4 ug/sam	6889410	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, pentamethyl-	148	C11H16	000700-12-9	90
2	Benzene, 2,4-dimethyl-1-(1-methyl...	148	C11H16	004706-89-2	90
Peak Number 51 2-Ethylhexyl acrylate Concentration Rank 32					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.708	5.7 ug/sam	11508900	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Ethylhexyl acrylate	184	C11H20O2	000103-11-7	91
2	2-Propenoic acid, 6-methylheptyl...	164	C11H20O2	054774-91-3	91
Peak Number 53 Benzene, 1,3-dimethyl-5-(1-... Concentration Rank 27					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
13.836	7.3 ug/sam	14707000	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,3-dimethyl-5-(1-methyl...	148	C11H16	004706-90-5	87
2	Benzene, pentamethyl-	148	C11H16	000700-12-9	87

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Peak Number 56 Benzene, pentamethyl- Concentration Rank 26					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
14.127	7.7 ug/sam	15525200	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, pentamethyl-	148	C11H16	000700-12-9	81
2	Benzene, pentamethyl-	148	C11H16	000700-12-9	81
Peak Number 59 1H-Indene, 2,3-dihydro-4,7-... Concentration Rank 38					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
14.307	4.2 ug/sam	8484420	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	94
2	1H-Indene, 2,3-dihydro-4,7-dimet...	146	C11H14	006682-71-9	93
Peak Number 62 Benzene, (1,3-dimethyl-1-pr... Concentration Rank 46					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
14.465	3.1 ug/sam	6143500	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, (1,2-dimethyl-1-propenyl)-	146	C11H14	000769-57-3	94
2	Benzene, (3-methyl-2-butenyl)-	146	C11H14	004489-84-3	93
Peak Number 65 Benzene, pentamethyl- Concentration Rank 44					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
14.618	3.2 ug/sam	6409650	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, pentamethyl-	148	C11H16	000700-12-9	93
2	3,4-Dimethylcumene	148	C11H16	1000370-34-1	90

Peak Number 71 Naphthalene, 1-methyl- Concentration Rank 28					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
14.957	7.2 ug/sam	14420400	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	94
2	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	94
Peak Number 73 Naphthalene, 1-methyl- Concentration Rank 34					
R.T.	EstConc	Area	Relative to ISTD	R.T.	
15.143	4.7 ug/sam	9489960	Benzene-d6	7.701	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	94
2	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	91



Certificate of Analysis

Source Testing New Zealand
PO Pox 32-017, Maungaraki
Lower Hutt 5010
Attention: Matthew Newby
Phone: 027 5533210
Email: m.newby@sourcetesting.co.nz

Lab Reference: 18-35478
Submitted by: Matthew Newby
Date Received: 14/11/2018
Date Completed: 14/11/2018
Order Number:
Reference: ST0788

Results Summary

Laboratory ID	Sample ID	butanone oxime (96-29-7)	formaldehyde (50-00-0)	isobutyl alcohol (78-83-1)
		ppbv	ppbv	ppbv
18-35478-1	ST0788/01	584	1629	2645
18-35478-2	ST0788/02	629	1946	2743

SIFT-MS method approver:

Anatoly Chernyshev, PhD
Scientist

Method Summary

The sample was analysed as received using direct injection – Selected Ion Flow Tube Mass Spectrometry (SIFT-MS) in Selected Ion Mode (SIM).

Report Comments

Samples were received by Analytica Laboratories in acceptable condition unless otherwise noted on this report.
LOQ (limit of quantitation): 5 ppbv. Uncertainty for VOC: $\pm 50\%$.



Certificate of Analysis

Source Testing New Zealand
PO Pox 32-017, Maungaraki
Lower Hutt 5010
Attention: Matthew Newby
Phone: 027 5533210
Email: m.newby@sourcetesting.co.nz

Lab Reference: 18-35642
Submitted by: Matthew Newby
Date Received: 15/11/2018
Date Completed: 16/11/2018
Order Number:
Reference: ST0788

Results Summary

Laboratory ID	Sample ID	cyclohexanone (108-94-1)	formaldehyde (50-00-0)	phenol (108-95-2)	propylene glycol methyl ether acetate (108-65-6)
		ppbv	ppbv	ppbv	ppbv
18-35642-1	ST0788/03	1198	237	683	6508
18-35642-1	ST0788/04	1205	238	819	7476

SIFT-MS method approver:

Anatoly Chernyshev, PhD
Scientist

Method Summary

The sample was analysed as received using direct injection – Selected Ion Flow Tube Mass Spectrometry (SIFT-MS) in Selected Ion Mode (SIM).

Report Comments

Samples were received by Analytica Laboratories in acceptable condition unless otherwise noted on this report.
LOQ (limit of quantitation): 5 ppbv. Uncertainty for VOC: ±50%.

Appendix D Quality Control Data

- This appendix includes 8 pages including the cover.

Method 18 Line 2 Main Stack VOC's by GC-MS R Value Calculations

Analyte	Run 1		ug/l of spiked compound	R value	Run 2		ug/l of spiked compound	R value	Blank Spike Lab Result ug	Lab Blank LOD Lab Result ug	Lab Blank LOD Lab Result ug
	Sample Lab Result ug	Spike Lab Result ug			Sample Lab Result ug	Spike Lab Result ug					
Chloroform	ldl	19	201	0.8	ldl	20	217	0.8	20.0	4.0	4.0
1,1,1-Trichloroethane	ldl	19.0	248	0.9	ldl	19.0	250	0.9	20.4	0.4	0.4
1,2-Dichloroethane	ldl	19.7	257	1.0	ldl	19.7	260	1.0	19.8	0.4	0.4
Carbon tetrachloride	ldl	20	261	1.0	ldl	21	277	1.0	19.8	0.4	0.4
1,1-Dichloropropene	ldl	21	275	1.0	ldl	21	277	1.0	20.4	0.4	0.4
Benzene	ldl	19.5	255	1.0	ldl	19.7	260	1.0	19.0	0.4	0.4
Trichloroethylene	ldl	36	475	1.0	ldl	36	479	1.0	36.6	0.4	0.4
1,2-Dichloropropane	ldl	21	275	1.0	ldl	21	277	1.0	20.6	0.4	0.4
Dibromomethane	ldl	20	261	1.0	ldl	19.9	262	1.0	19.2	0.4	0.4
Bromodichloromethane	ldl	21	275	1.0	ldl	21	277	1.0	19.8	0.4	0.4
cis-1,3-Dichloropropene	ldl	20	261	1.0	ldl	20	264	1.0	20.0	0.4	0.4
Toluene	7.6	28	273	1.0	8.7	29	277	1.0	20.0	0.4	0.4
trans-1,3-Dichloropropene	ldl	20	261	1.0	ldl	20	264	1.0	19.8	0.4	0.4
1,1,2-Trichloroethane	ldl	20	261	1.0	ldl	20	264	1.0	19.6	0.4	0.4
1,3-Dichloropropane	ldl	21	275	1.0	ldl	21	277	1.0	21.4	0.4	0.4
Dibromochloromethane	ldl	21	275	1.0	ldl	21	277	1.0	20.0	0.4	0.4
Tetrachloroethylene	ldl	21	275	1.0	ldl	21	277	1.0	21.0	0.4	0.4
1,2-Dibromoethane	ldl	20	261	1.0	ldl	20	264	1.0	20.0	0.4	0.4
Chlorobenzene	ldl	20	261	1.0	ldl	20	264	1.0	18.8	0.4	0.4
1,1,1,2-Tetrachloroethane	ldl	20	261	1.0	ldl	21	277	1.0	20.2	0.4	0.4
Ethylbenzene	1,590	1,610	477	1.7	1,900	1,810	-225	-0.8	20.6	0.4	0.4
m-, p-Xylene	850	890	646	2.4	980	970	374	1.4	20.2	0.4	0.4
o-Xylene	280	290	170	0.7	330	310	-98	-0.4	19.0	0.4	0.4
Styrene	2.2	21	251	1.4	2.8	21	246	1.4	13.2	0.4	0.4
Bromoform	ldl	21	275	1.0	ldl	21	277	1.0	19.8	0.4	0.4
iso-Propylbenzene (Cumene)	4.8	26	283	1.0	5.2	26	282	1.0	21.0	0.4	0.4
1,1,2,2-Tetrachloroethane	ldl	2.3	25	1.9	0.5	2.1	22	1.6	1.0	0.4	0.4
1,2,3-Trichloropropane	ldl	21	275	1.0	ldl	21	277	1.0	20.0	0.4	0.4
Bromobenzene	ldl	21	275	1.1	ldl	20	264	1.0	19.0	0.4	0.4
2-Chlorotoluene	ldl	40	528	2.2	ldl	38	506	2.1	18.2	0.4	0.4
n-Propylbenzene	32	50	244	0.9	32	47	218	0.8	20.4	0.4	0.4
4-Chlorotoluene	ldl	21	275	1.1	ldl	20	264	1.0	19.0	0.4	0.4
1,3,5-Trimethylbenzene	92	109	239	0.9	92	104	209	0.8	20.4	0.4	0.4
tert-Butylbenzene	ldl	22	288	1.0	ldl	21	277	1.0	21.4	0.4	0.4
1,2,4-Trimethylbenzene	1,210	1,260	827	3.2	1,240	1,190	-29	-0.1	19.2	0.4	0.4
1,3-Dichlorobenzene	ldl	20	261	1.1	ldl	19.6	258	1.1	18.0	0.4	0.4
sec-Butylbenzene	46	65	259	0.9	46	62	239	0.8	21.2	0.4	0.4
1,4-Dichlorobenzene	ldl	20	261	1.1	ldl	19.4	256	1.1	17.2	0.4	0.4
4-Isopropyltoluene (p-Cymene)	52	71	260	0.9	53	67	216	0.8	21.0	0.4	0.4
1,2-Dichlorobenzene	ldl	19.2	251	1.1	ldl	18.8	248	1.1	16.6	0.4	0.4
n-Butylbenzene	ldl	< 0.4	NR	NR	ldl	< 0.4	NR	NR	20.0	0.4	0.4
1,2-Dibromo-3-chloropropane	ldl	< 0.4	NR	NR	ldl	< 0.4	NR	NR	17.8	0.4	0.4
1,2,4-Trichlorobenzene	ldl	19.4	253	1.3	ldl	18.6	245	1.2	14.8	0.4	0.4
Naphthalene	320	330	176	2.5	340	310	-227	-3.2	5.2	0.4	0.4
1,2,3-Trichlorobenzene	ldl	17.2	224	1.3	ldl	16.6	218	1.2	13.2	0.4	0.4
Hexachlorobutadiene	ldl	22	288	1.0	ldl	22	291	1.0	20.6	0.4	0.4
MIBK (methylisobutyl ketone)	ldl	< 2	NR	NR	ldl	< 2	NR	NR	NA	4.0	4.0

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■ **Method 18 Line 2 Main Stack VOC's by GC-MS R Value Summary**

Analyte	Average R value	Analytical procedure acceptable if $0.7 \leq R \leq$ 1.3
Chloroform	0.78	Yes
1,1,1-Trichloroethane	0.91	Yes
1,2-Dichloroethane	0.98	Yes
Carbon tetrachloride	1.02	Yes
1,1-Dichloropropene	1.01	Yes
Benzene	1.01	Yes
Trichloroethylene	0.97	Yes
1,2-Dichloropropane	1.00	Yes
Dibromomethane	1.02	Yes
Bromodichloromethane	1.04	Yes
cis-1,3-Dichloropropene	0.98	Yes
Toluene	1.02	Yes
trans-1,3-Dichloropropene	0.99	Yes
1,1,2-Trichloroethane	1.00	Yes
1,3-Dichloropropane	0.96	Yes
Dibromochloromethane	1.03	Yes
Tetrachloroethylene	0.98	Yes
1,2-Dibromoethane	0.98	Yes
Chlorobenzene	1.04	Yes
1,1,1,2-Tetrachloroethane	1.00	Yes
Ethylbenzene	0.46	No
m-, p-Xylene	1.89	No
o-Xylene	0.14	No
Styrene	1.41	No
Bromoform	1.04	Yes
iso-Propylbenzene (Cumene)	1.01	Yes
1,1,2,2-Tetrachloroethane	1.76	No
1,2,3-Trichloropropane	1.03	Yes
Bromobenzene	1.06	Yes
2-Chlorotoluene	2.12	No
n-Propylbenzene	0.85	Yes
4-Chlorotoluene	1.06	Yes
1,3,5-Trimethylbenzene	0.82	Yes
tert-Butylbenzene	0.99	Yes
1,2,4-Trimethylbenzene	1.56	No
1,3-Dichlorobenzene	1.08	Yes
sec-Butylbenzene	0.88	Yes
1,4-Dichlorobenzene	1.12	Yes
4-Isopropyltoluene (p-Cymene)	0.85	Yes
1,2-Dichlorobenzene	1.12	Yes
n-Butylbenzene	NR	No
1,2-Dibromo-3-chloropropane	NR	No
1,2,4-Trichlorobenzene	1.26	Yes
Naphthalene	-0.36	No
1,2,3-Trichlorobenzene	1.25	Yes
Hexachlorobutadiene	1.05	Yes
MIBK (methylisobutyl ketone)	NR	No

SOURCE TESTING NZ

Method 18 Internal Lacquer/Assembly VOC's by GC-MS R Value Calculations

Analyte	Run 1		ug/l of spiked compound	R value	Run 2		ug/l of spiked compound	R value	Blank Spike Lab Result ug	Lab Blank LOD Lab Result ug	Lab Blank LOD Lab Result ug
	Sample Lab Result ug	Spike Lab Result ug			Sample Lab Result ug	Spike Lab Result ug					
Chloroform	Idl	20	212	1.0	Idl	19	207	0.8	20.0	4.0	4.0
1,1,1-Trichloroethane	Idl	19.8	257	1.0	Idl	19.2	255	0.9	20.4	0.4	0.4
1,2-Dichloroethane	Idl	19.9	259	1.0	Idl	19.2	255	1.0	19.8	0.4	0.4
Carbon tetrachloride	Idl	20	260	1.0	Idl	19.7	262	1.0	19.8	0.4	0.4
1,1-Dichloropropene	Idl	21	273	1.0	Idl	20	266	1.0	20.4	0.4	0.4
Benzene	Idl	19.7	256	1.0	Idl	19.3	257	1.0	19.0	0.4	0.4
Trichloroethylene	Idl	37	485	1.0	Idl	36	483	1.0	36.6	0.4	0.4
1,2-Dichloropropane	Idl	21	273	1.0	Idl	21	280	1.0	20.6	0.4	0.4
Dibromomethane	Idl	19.8	257	1.0	Idl	19.5	259	1.0	19.2	0.4	0.4
Bromodichloromethane	Idl	20	260	1.0	Idl	20	266	1.0	19.8	0.4	0.4
cis-1,3-Dichloropropene	Idl	21	273	1.0	Idl	20	266	1.0	20.0	0.4	0.4
Toluene	13.0	34	279	1.0	16.3	35	268	1.0	20.0	0.4	0.4
trans-1,3-Dichloropropene	Idl	20	260	1.0	Idl	19.9	265	1.0	19.8	0.4	0.4
1,1,2-Trichloroethane	Idl	19.9	259	1.0	Idl	19.9	265	1.0	19.6	0.4	0.4
1,3-Dichloropropane	Idl	21	273	1.0	Idl	21	280	1.0	21.4	0.4	0.4
Dibromochloromethane	Idl	20	260	1.0	Idl	19.8	263	1.0	20.0	0.4	0.4
Tetrachloroethylene	Idl	21	273	1.0	Idl	21	280	1.0	21.0	0.4	0.4
1,2-Dibromoethane	Idl	20	260	1.0	Idl	20	266	1.0	20.0	0.4	0.4
Chlorobenzene	Idl	20	260	1.0	Idl	19.5	259	1.0	18.8	0.4	0.4
1,1,1,2-Tetrachloroethane	Idl	21	273	1.0	Idl	20	266	1.0	20.2	0.4	0.4
Ethylbenzene	1,450	1,460	149	0.5	1,830	1,750	577	2.1	20.6	0.4	0.4
m-, p-Xylene	770	790	274	1.0	870	860	654	2.4	20.2	0.4	0.4
o-Xylene	230	270	533	2.1	270	260	110	0.4	19.0	0.4	0.4
Styrene	Idl	15.1	195	1.1	Idl	12.5	164	0.9	13.2	0.4	0.4
Bromoform	Idl	21	273	1.0	Idl	20	266	1.0	19.8	0.4	0.4
iso-Propylbenzene (Cumene)	10.4	32	287	1.0	8.8	29	282	1.0	21.0	0.4	0.4
1,1,2,2-Tetrachloroethane	Idl	< 0.4	NR	NR	Idl	1.6	17	1.2	1.0	0.4	0.4
1,2,3-Trichloropropane	Idl	21	273	1.0	Idl	20	266	1.0	20.0	0.4	0.4
Bromobenzene	Idl	20	260	1.0	Idl	19.8	263	1.0	19.0	0.4	0.4
2-Chlorotoluene	Idl	37	485	2.0	Idl	31	415	1.7	18.2	0.4	0.4
n-Propylbenzene	30	51	279	1.0	23	39	238	0.9	20.4	0.4	0.4
4-Chlorotoluene	Idl	21	273	1.1	Idl	20	266	1.0	19.0	0.4	0.4
1,3,5-Trimethylbenzene	58	82	319	1.2	45	60	244	0.9	20.4	0.4	0.4
tert-Butylbenzene	Idl	22	286	1.0	Idl	22	293	1.0	21.4	0.4	0.4
1,2,4-Trimethylbenzene	290	330	534	2.1	220	220	200	0.8	19.2	0.4	0.4
1,3-Dichlorobenzene	Idl	19.5	253	1.1	Idl	18.6	247	1.0	18.0	0.4	0.4
sec-Butylbenzene	4.9	27	293	1.0	3.9	25	290	1.0	21.2	0.4	0.4
1,4-Dichlorobenzene	Idl	19.0	247	1.1	0.6	18.4	242	1.0	17.2	0.4	0.4
4-Isopropyltoluene (p-Cymene)	7.1	29	290	1.0	5.5	26	283	1.0	21.0	0.4	0.4
1,2-Dichlorobenzene	Idl	18.4	239	1.1	Idl	17.5	232	1.0	16.6	0.4	0.4
n-Butylbenzene	Idl	< 0.4	NR	NR	Idl	< 0.4	NR	NR	20.0	0.4	0.4
1,2-Dibromo-3-chloropropane	Idl	25	326	1.4	Idl	22	293	1.2	17.8	0.4	0.4
1,2,4-Trichlorobenzene	Idl	17.3	224	1.1	Idl	16.2	215	1.1	14.8	0.4	0.4
Naphthalene	31	36	67	1.0	21	24	60	0.8	5.2	0.4	0.4
1,2,3-Trichlorobenzene	Idl	15.3	198	1.1	Idl	14.4	190	1.1	13.2	0.4	0.4
Hexachlorobutadiene	Idl	21	273	1.0	Idl	21	280	1.0	20.6	0.4	0.4
MIBK (methylisobutyl ketone)	Idl	< 2	NR	NR	Idl	< 2	NR	NR	NA	4.0	4.0

SOURCE TESTING NZ

■ **Method 18 Internal Lacquer/Assembly VOC's by GC-MS R Value Summary**

Analyte	Average R value	Analytical procedure acceptable if $0.7 \leq R \leq 1.3$
Chloroform	0.88	Yes
1,1,1-Trichloroethane	0.94	Yes
1,2-Dichloroethane	0.97	Yes
Carbon tetrachloride	0.98	Yes
1,1-Dichloropropene	0.99	Yes
Benzene	1.01	Yes
Trichloroethylene	0.99	Yes
1,2-Dichloropropane	1.00	Yes
Dibromomethane	1.00	Yes
Bromodichloromethane	0.99	Yes
cis-1,3-Dichloropropene	1.01	Yes
Toluene	0.99	Yes
trans-1,3-Dichloropropene	0.99	Yes
1,1,2-Trichloroethane	1.00	Yes
1,3-Dichloropropane	0.96	Yes
Dibromochloromethane	0.98	Yes
Tetrachloroethylene	0.98	Yes
1,2-Dibromoethane	0.98	Yes
Chlorobenzene	1.03	Yes
1,1,1,2-Tetrachloroethane	1.00	Yes
Ethylbenzene	1.31	No
m-, p-Xylene	1.71	No
o-Xylene	1.27	Yes
Styrene	1.02	Yes
Bromoform	1.02	Yes
iso-Propylbenzene (Cumene)	1.01	Yes
1,1,2,2-Tetrachloroethane	1.23	Yes
1,2,3-Trichloropropane	1.01	Yes
Bromobenzene	1.03	Yes
2-Chlorotoluene	1.85	No
n-Propylbenzene	0.95	Yes
4-Chlorotoluene	1.06	Yes
1,3,5-Trimethylbenzene	1.03	Yes
tert-Butylbenzene	1.01	Yes
1,2,4-Trimethylbenzene	1.43	No
1,3-Dichlorobenzene	1.04	Yes
sec-Butylbenzene	1.03	Yes
1,4-Dichlorobenzene	1.06	Yes
4-Isopropyltoluene (p-Cymene)	1.02	Yes
1,2-Dichlorobenzene	1.06	Yes
n-Butylbenzene	NR	No
1,2-Dibromo-3-chloropropane	1.30	Yes
1,2,4-Trichlorobenzene	1.11	Yes
Naphthalene	0.91	Yes
1,2,3-Trichlorobenzene	1.10	Yes
Hexachlorobutadiene	1.00	Yes
MIBK (methylisobutyl ketone)	NR	No

SOURCE TESTING NZ

■ **Method 18 Line 2 Main Stack Alcohols R Value Calculations**

Analyte	Run 1		ug/l of spiked compound	R value	Run 2		ug/l of spiked compound	R value	Blank Spike Lab Result ug	Lab Blank LOD Lab Result ug	Lab Blank LOD Lab Result ug
	Sample Lab Result ug	Spike Lab Result ug			Sample Lab Result ug	Spike Lab Result ug					
1-Methoxy-2-propanol	990	1113	1518	1.0	1050	1250	2988	1.9	140	20	20
2-Butoxyethanol	300	350	606	0.5	280	420	1801	1.5	109	4	4
Butanol	3900	4200	3872	3.1	3900	4500	9441	7.7	112	4	4

Analyte	Average R value	Analytical procedure acceptable if $0.7 \leq R \leq 1.3$	Molecular Weight g	LOD	Run 1 Conc. (ppm)	Run 2 Conc. (ppm)
					1-Methoxy-2-propanol	1.45
2-Butoxyethanol	1.00	Yes	118.18	4.0	1.32	0.41
Butanol	5.38	No	74.10	4.0	N/A	N/A

■ **Method 18 Internal Lacquer/Assembly Alcohols R Value Calculations**

Analyte	Run 1		ug/l of spiked compound	R value	Run 2		ug/l of spiked compound	R value	Blank Spike Lab Result ug	Lab Blank LOD Lab Result ug	Lab Blank LOD Lab Result ug
	Sample Lab Result ug	Spike Lab Result ug			Sample Lab Result ug	Spike Lab Result ug					
1-Methoxy-2-propanol	500	700	3482	1.9	710	860	1962	1.1	140	20	20
2-Butoxyethanol	3100	3900	15313	10.8	2300	2600	3885	2.7	109	4	4
Butanol	1270	1720	8018	5.5	1900	2100	2574	1.7	112	4	4

Analyte	Average R value	Analytical procedure acceptable if $0.7 \leq R \leq 1.3$	Molecular Weight g	LOD	Run 1 Conc. (ppm)	Run 2 Conc. (ppm)
					1-Methoxy-2-propanol	1.48
2-Butoxyethanol	6.74	No	118.18	4.0	N/A	N/A
Butanol	3.61	No	74.10	4.0	N/A	N/A