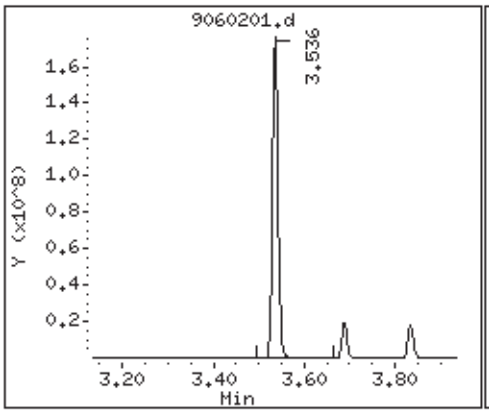
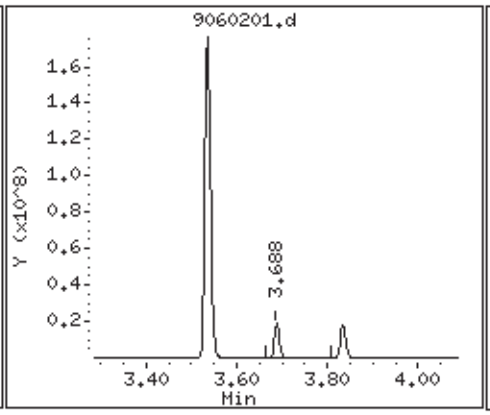
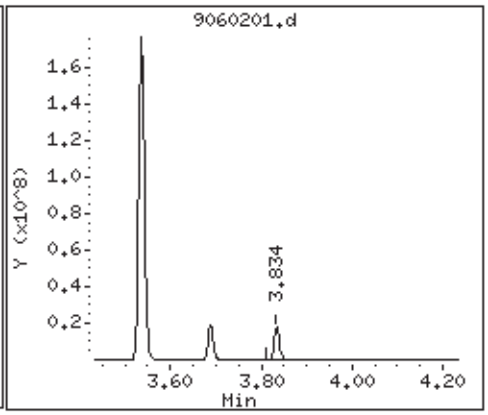
2 Methane



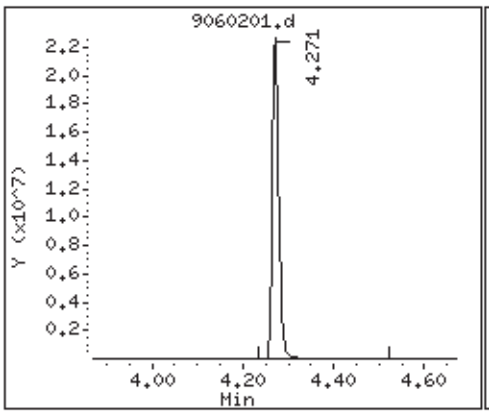
3 ethane



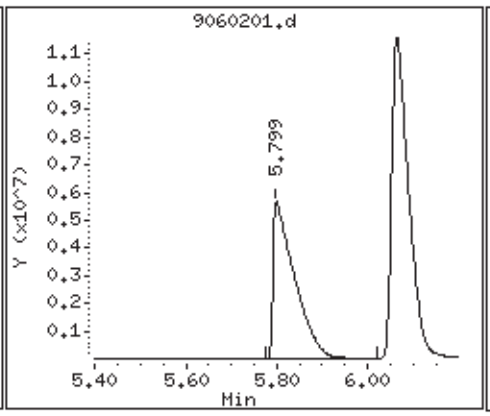
4 ethene



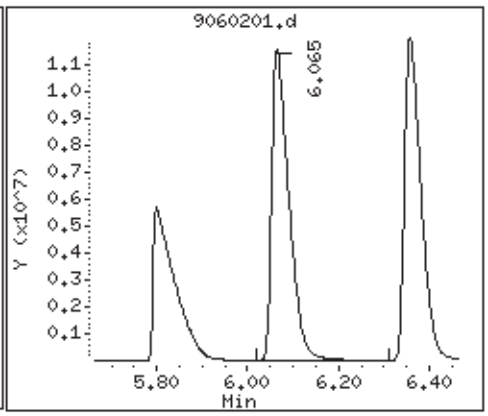
5 propane



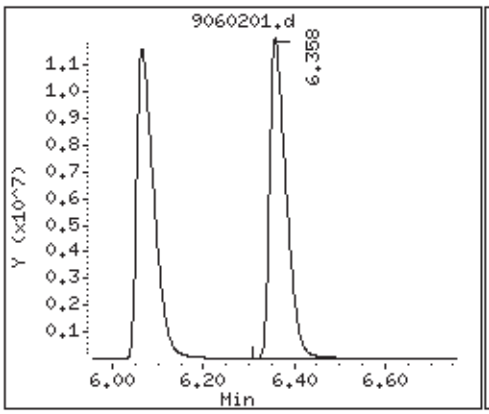
7 acetylene



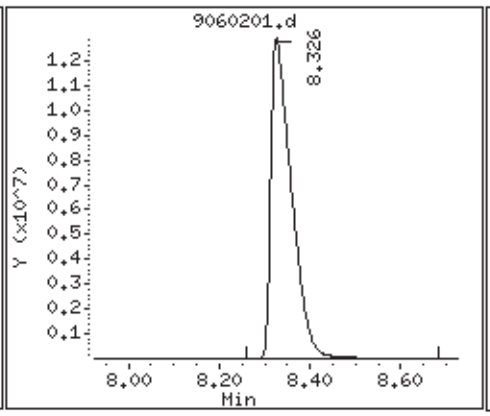
8 iso-butane



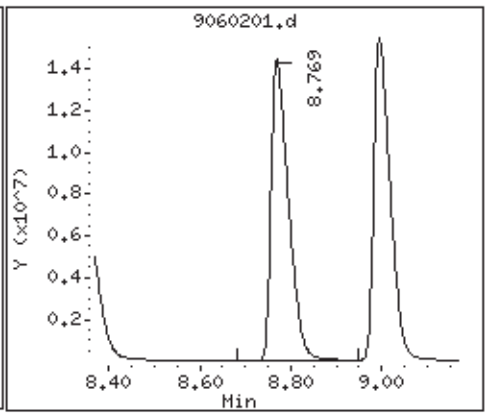
10 n-butane



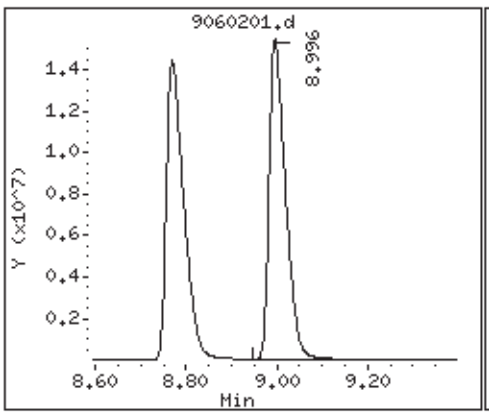
15 neo-pentane



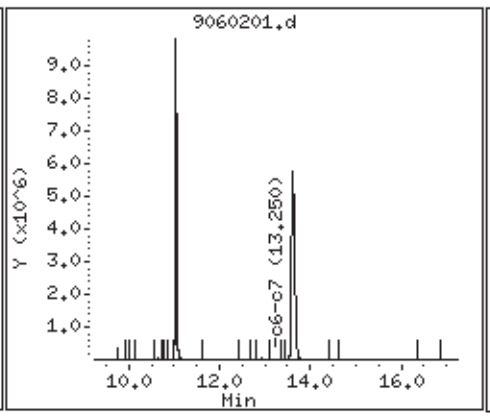
16 isopentane



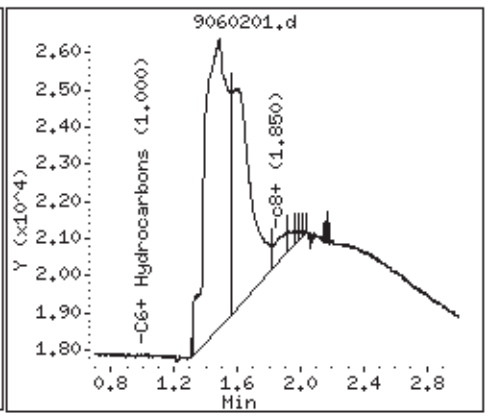
17 pentane



S 22 c6-c7



S 36 c8+



Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc9.i Injection Date: 02-JUN-2010 10:32
Lab File ID: 9060201b.d Init. Cal. Date(s): 17-APR-2010 17-APR-2010
Analysis Type: AIR Init. Cal. Times: 09:26 16:10
Lab Sample ID: 1544-365BNgas Quant Type: ESTD
Method: /chem/gc9.i/02Jun2010.b/910n0430.m/910C0417.m

COMPOUND	RRF / AMOUNT	RF0.000	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
3 Carbon Dioxide	550433949	503688788	0.010	8.49242	15.00000	Averaged
1 Helium	66861269	66665262	0.010	0.29315	15.00000	Averaged
9 Oxygen	325899096	313606750	0.010	3.77183	15.00000	Averaged
10 Nitrogen	364890596	341344319	0.010	6.45297	15.00000	Averaged
12 Carbon Monoxide	283422459	309695864	0.010	-9.27005	15.00000	Averaged

Air Toxics Ltd.

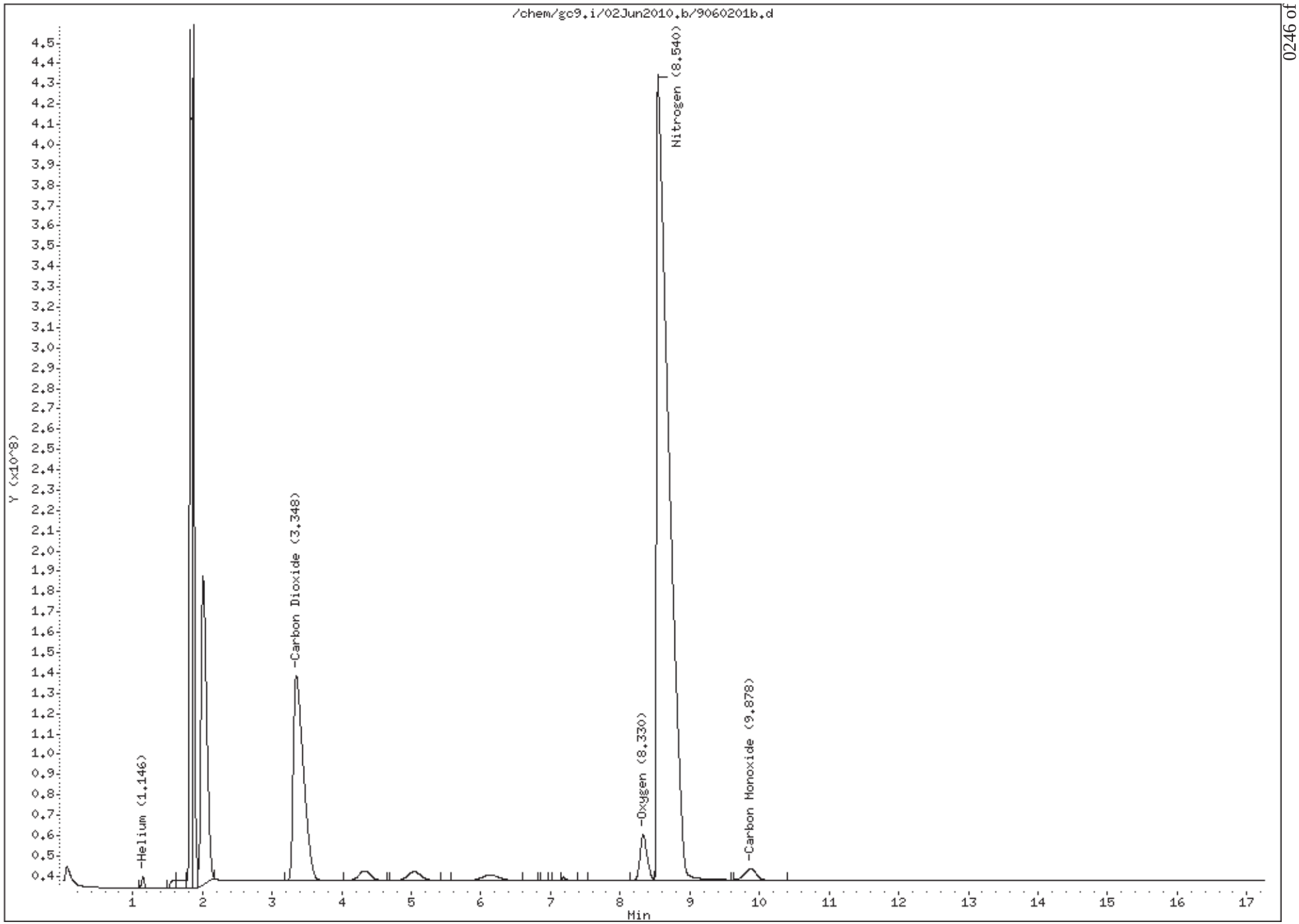
Modified ASTM D-1945

Data file : /chem/gc9.i/02Jun2010.b/9060201b.d
Lab Smp Id: 1544-365BNgas Client Smp ID: CCV
Inj Date : 02-JUN-2010 10:32
Operator : ly Inst ID: gc9.i
Smp Info : 1.0mL,34219
Misc Info : CCV
Comment : GC/TCD
Method : /chem/gc9.i/02Jun2010.b/910n0430.m/910C0417.m
Meth Date : 02-Jun-2010 22:28 lyohanne Quant Type: ESTD
Cal Date : 02-JUN-2010 10:32 Cal File: 9060201b.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ng+He-H2.sub
Target Version: 3.50
Processing Host: eeyore

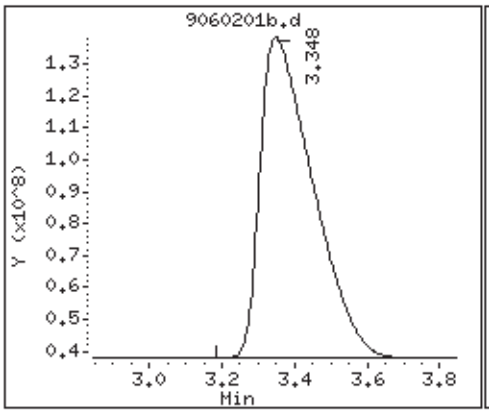
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

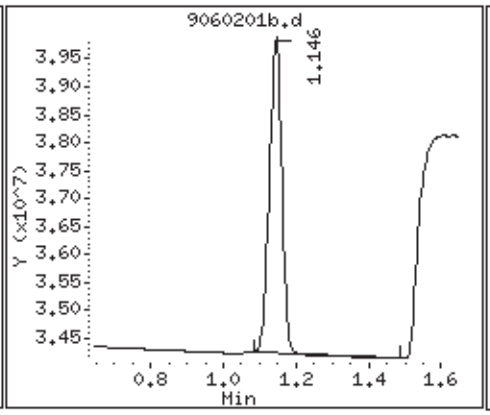
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (%)	AMOUNTS ON-COL (%)
3 Carbon Dioxide	3.348	3.348	0.000	5036887880	10.0000	9.15
1 Helium	1.146	1.146	0.000	65798614	0.98700	0.984
9 Oxygen	8.330	8.330	0.000	784016876	2.50000	2.40
10 Nitrogen	8.540	8.540	0.000	24072966764	70.5240	66.0
12 Carbon Monoxide	9.878	9.878	0.000	312792823	1.01000	1.10


/chem/gc9.i/02Jun2010.b/9060201b.d
Y (x10^8)
Min
Helium (1.146)
Carbon Dioxide (3.348)
Oxygen (8.330)
Nitrogen (8.540)
Carbon Monoxide (9.878)

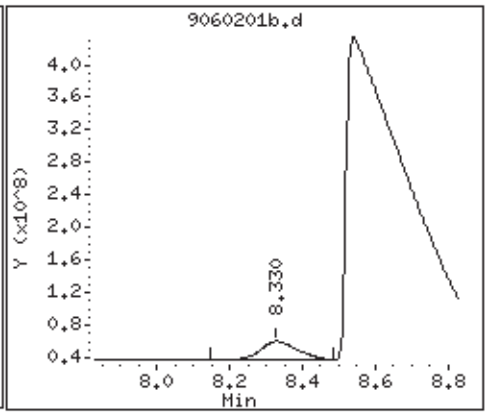
3 Carbon Dioxide



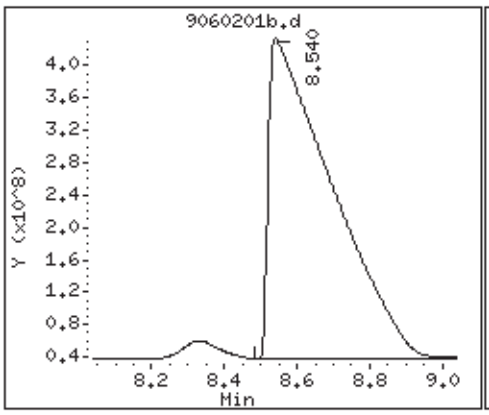
1 Helium



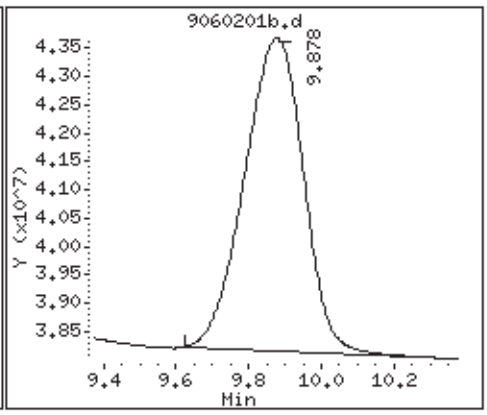
9 Oxygen



10 Nitrogen



12 Carbon Monoxide



Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc9.i Injection Date: 02-JUN-2010 11:04
Lab File ID: 9060202b.d Init. Cal. Date(s): 17-APR-2010 17-APR-2010
Analysis Type: AIR Init. Cal. Times: 09:26 16:10
Lab Sample ID: 1476-977 H2 Quant Type: ESTD
Method: /chem/gc9.i/02Jun2010.b/910n0430.m/910C0417.m

COMPOUND	RRF / AMOUNT	RF0.000	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
2 Hydrogen	105110654	104354462	0.010	0.71942	15.00000	Averaged

Air Toxics Ltd.

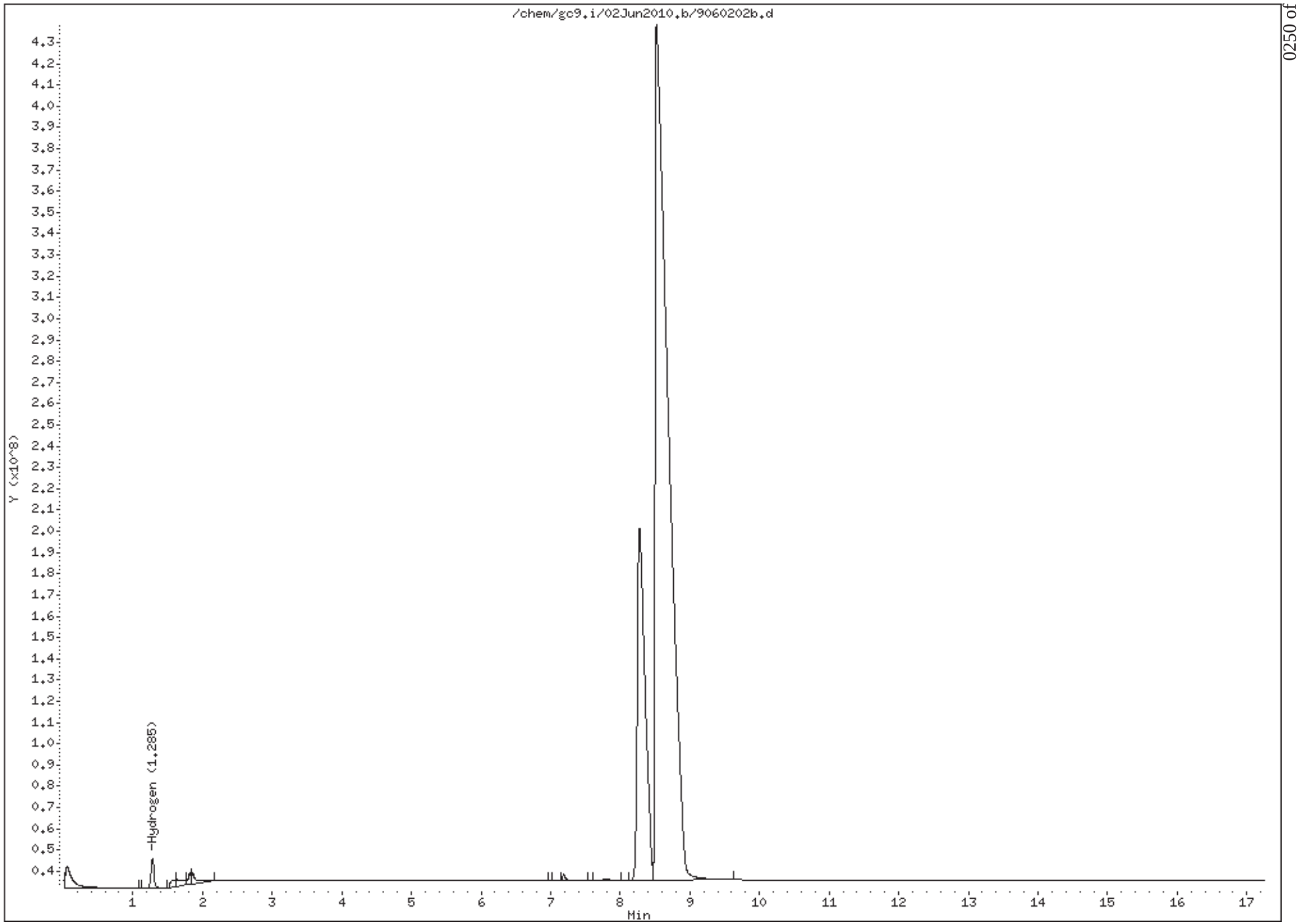
Modified ASTM D-1945

Data file : /chem/gc9.i/02Jun2010.b/9060202b.d
Lab Smp Id: 1476-977 H2 Client Smp ID: CCV
Inj Date : 02-JUN-2010 11:04
Operator : ly Inst ID: gc9.i
Smp Info : 1.0mL,;1476-977 H2;CCV;
Misc Info : CCV
Comment : GC/TCD
Method : /chem/gc9.i/02Jun2010.b/910n0430.m/910C0417.m
Meth Date : 02-Jun-2010 11:22 lyohanne Quant Type: ESTD
Cal Date : 02-JUN-2010 11:04 Cal File: 9060202b.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: h2.sub
Target Version: 3.50
Processing Host: eeyore

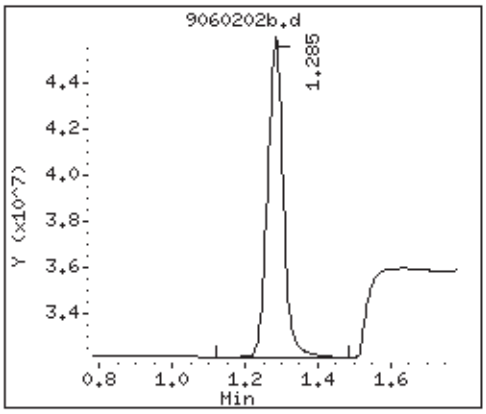
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
2 Hydrogen	1.285	1.285	0.000	208708924	2.00000	1.98


/chem/gc9.i/02Jun2010.b/9060202b.d
Y (x10^8)
Hydrogen (1.285)
Min

2 Hydrogen



Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 1005453B-18A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9060129**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/1/10 10:32 PM**	

Compound	%Recovery
Oxygen	99
Nitrogen	100
Carbon Monoxide	100
Methane	100
Carbon Dioxide	100
Ethane	101
Ethene	101
Acetylene	103
Propane	99
Isobutane	100
Butane	98
Neopentane	101
Isopentane	102
Pentane	101
C6+	103
Helium	98

Container Type: NA - Not Applicable

Report Date: 01-Jun-2010 22:52

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 01Jun2010
Sample Matrix: GAS Fraction: Atm Gas
Lab Smp Id: 1476-1477 ngas Client Smp ID: LCS
Level: LOW Operator: gd
Data Type: GC DATA SampleType: LCS
SpikeList File: 1476-1477.spk Quant Type: ESTD
Sublist File: ngas.sub
Method File: /chem/gc9.i/01Jun2010.b/910n0430.m
Misc Info: LCS

	SPIKE COMPOUND	CONC ADDED %	CONC RECOVERED %	% RECOVERED	LIMITS
	2 Methane	9.99	10.0	100.12	85-115
	3 ethane	0.498	0.502	100.88	85-115
	4 ethene	0.500	0.504	100.82	85-115
	5 propane	0.499	0.495	99.23	85-115
	7 acetylene	0.500	0.517	103.41	85-115
	8 iso-butane	0.500	0.499	99.82	85-115
	10 n-butane	0.498	0.491	98.54	85-115
	15 neo-pentane	0.510	0.514	100.82	85-115
	16 isopentane	0.505	0.513	101.68	85-115
	17 pentane	0.503	0.509	101.21	85-115
M	37 C6+ Hydrocarbons	0.516	0.530	102.68	85-115

Air Toxics Ltd.

Modified ASTM-1945 Analysis

Data file : /chem/gc9.i/01Jun2010.b/9060129.d
Lab Smp Id: 1476-1477 ngas Client Smp ID: LCS
Inj Date : 01-JUN-2010 22:32
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,
Misc Info : LCS
Comment : GC FID
Method : /chem/gc9.i/01Jun2010.b/910n0430.m
Meth Date : 01-Jun-2010 08:01 lyohanne Quant Type: ESTD
Cal Date : 01-JUN-2010 07:39 Cal File: 9060101.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

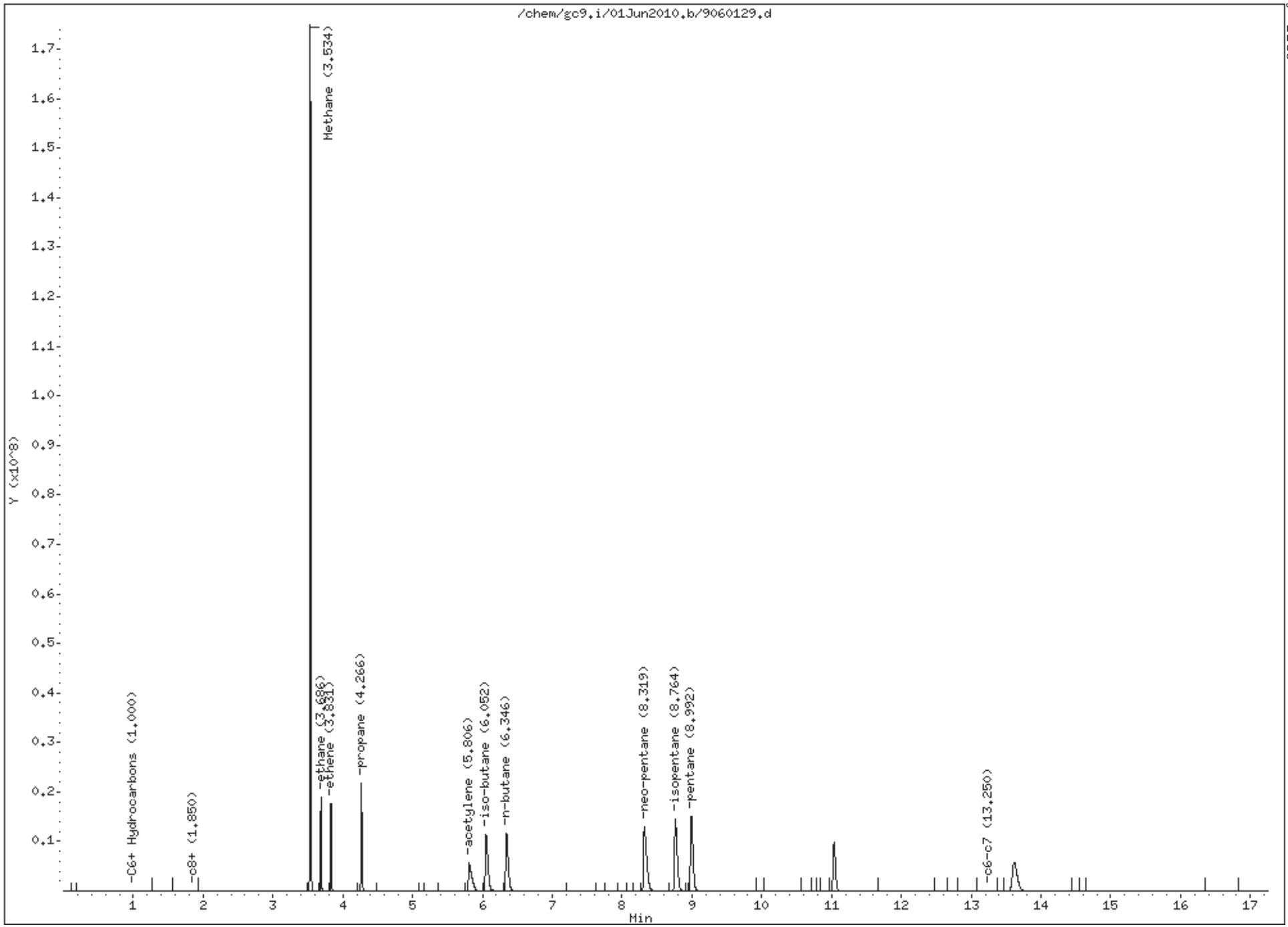
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

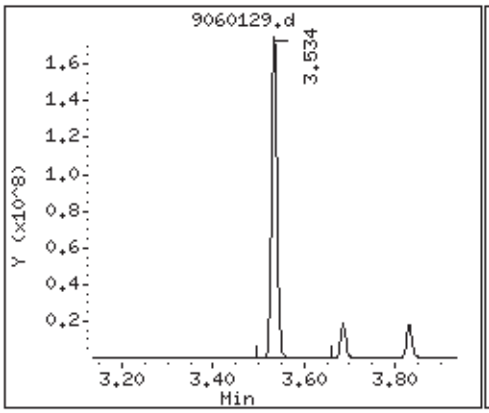
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
	2 Methane	3.534	3.536	-0.002	1515344714	10.0019	10.0
	3 ethane	3.686	3.689	-0.003	148938617	0.50240	0.502
	4 ethene	3.831	3.834	-0.003	147442781	0.50408	0.504
	5 propane	4.266	4.272	-0.006	221937042	0.49514	0.495
	7 acetylene	5.806	5.797	0.009	190951251	0.51703	0.517(A)
	8 iso-butane	6.052	6.067	-0.015	298065506	0.49908	0.499
	10 n-butane	6.346	6.360	-0.014	294615480	0.49073	0.491
	15 neo-pentane	8.319	8.332	-0.013	406991732	0.51419	0.514(A)
	16 isopentane	8.764	8.775	-0.011	384445445	0.51349	0.513
	17 pentane	8.992	9.001	-0.009	386073892	0.50910	0.509
M	37 C6+ Hydrocarbons				527803281	0.52982	0.530
S	22 c6-c7	9.250-17.250			526429117	0.52982	0.530
S	36 c8+	0.700-3.000			1374164		(a)

QC Flag Legend

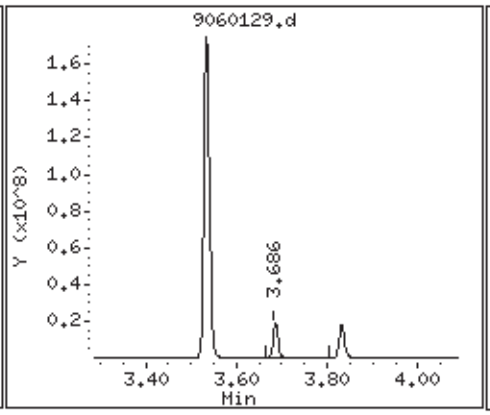
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.


/chem/gc9.i/01Jun2010.b/9060129.d
Y (x10^8)
Min
-C6+ Hydrocarbons (1.000)
-c8+ (1.850)
Methane (3.534)
-ethane (3.686)
-ethene (3.831)
-propane (4.266)
-acetylene (5.806)
-iso-butane (6.052)
-n-butane (6.346)
-neo-pentane (8.319)
-isopentane (8.764)
-pentane (8.992)
-c6-c7 (13.250)

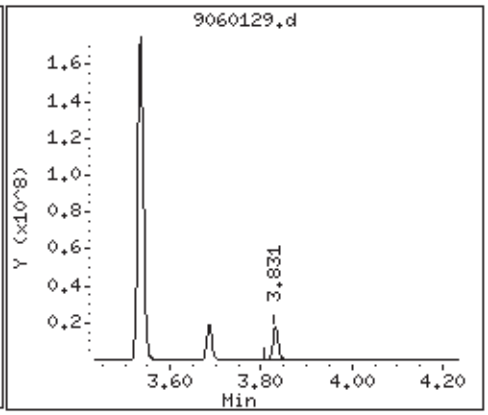
2 Methane



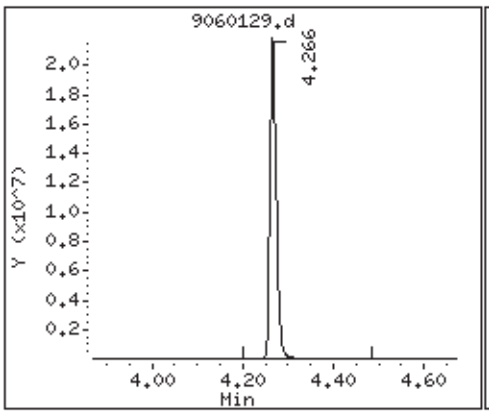
3 ethane



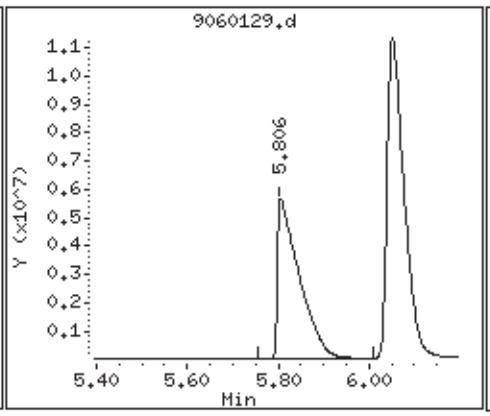
4 ethene



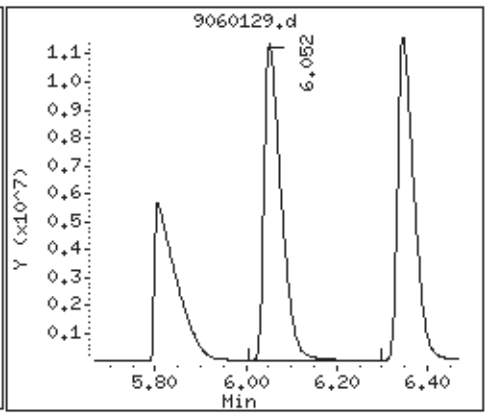
5 propane



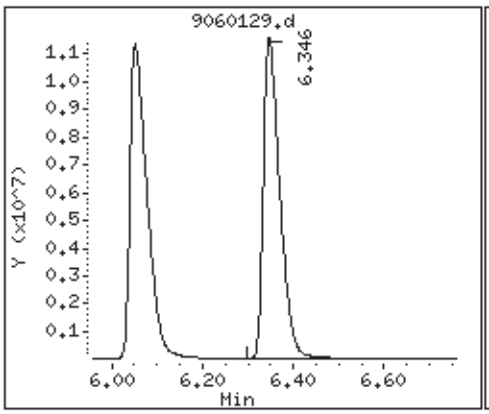
7 acetylene



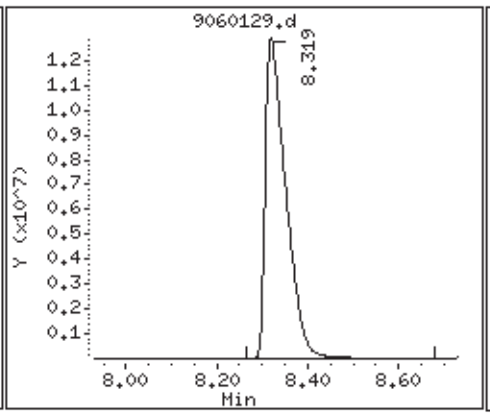
8 iso-butane



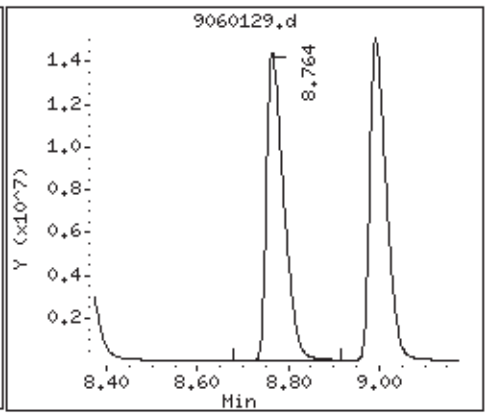
10 n-butane



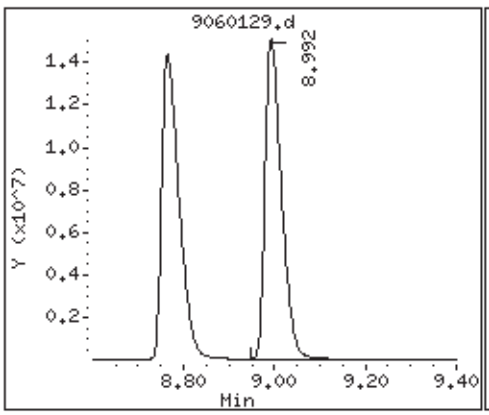
15 neo-pentane



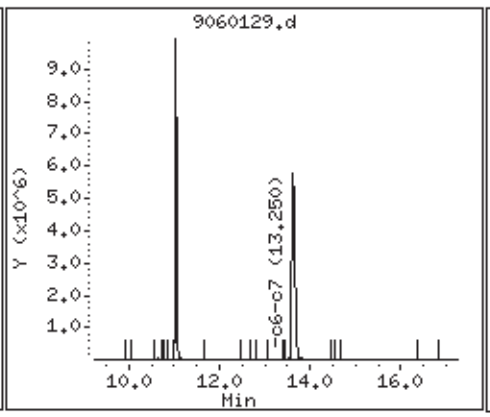
16 isopentane



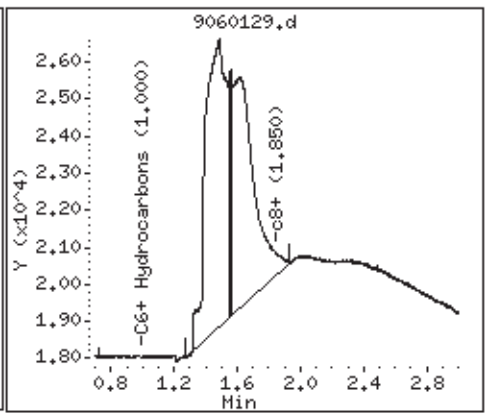
17 pentane



S 22 c6-c7



S 36 c8+



Air Toxics Ltd.

Modified ASTM D-1945

Data file : /chem/gc9.i/01Jun2010.b/9060129b.d
Lab Smp Id: 1476-1477 ngas Client Smp ID: LCS
Inj Date : 01-JUN-2010 22:32
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,;1476-1477 ngas;LCS
Misc Info : LCS
Comment : GC/TCD
Method : /chem/gc9.i/01Jun2010.b/910n0430.m/910C0417.m
Meth Date : 01-Jun-2010 17:45 lyohanne Quant Type: ESTD
Cal Date : 01-JUN-2010 17:29 Cal File: 9060118b.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ngas-H2.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					CONCENTRATIONS	
					ON-COLUMN	FINAL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
3 Carbon Dioxide	3.364	3.375	-0.011	5096249861	10.0249	10.0
1 Helium	1.148	1.143	0.005	64366391	0.97656	0.976
9 Oxygen	8.333	8.336	-0.003	765812886	2.45547	2.46
10 Nitrogen	8.543	8.549	-0.006	24051563212	70.7133	70.7
12 Carbon Monoxide	9.875	9.900	-0.025	308349275	0.99676	0.997

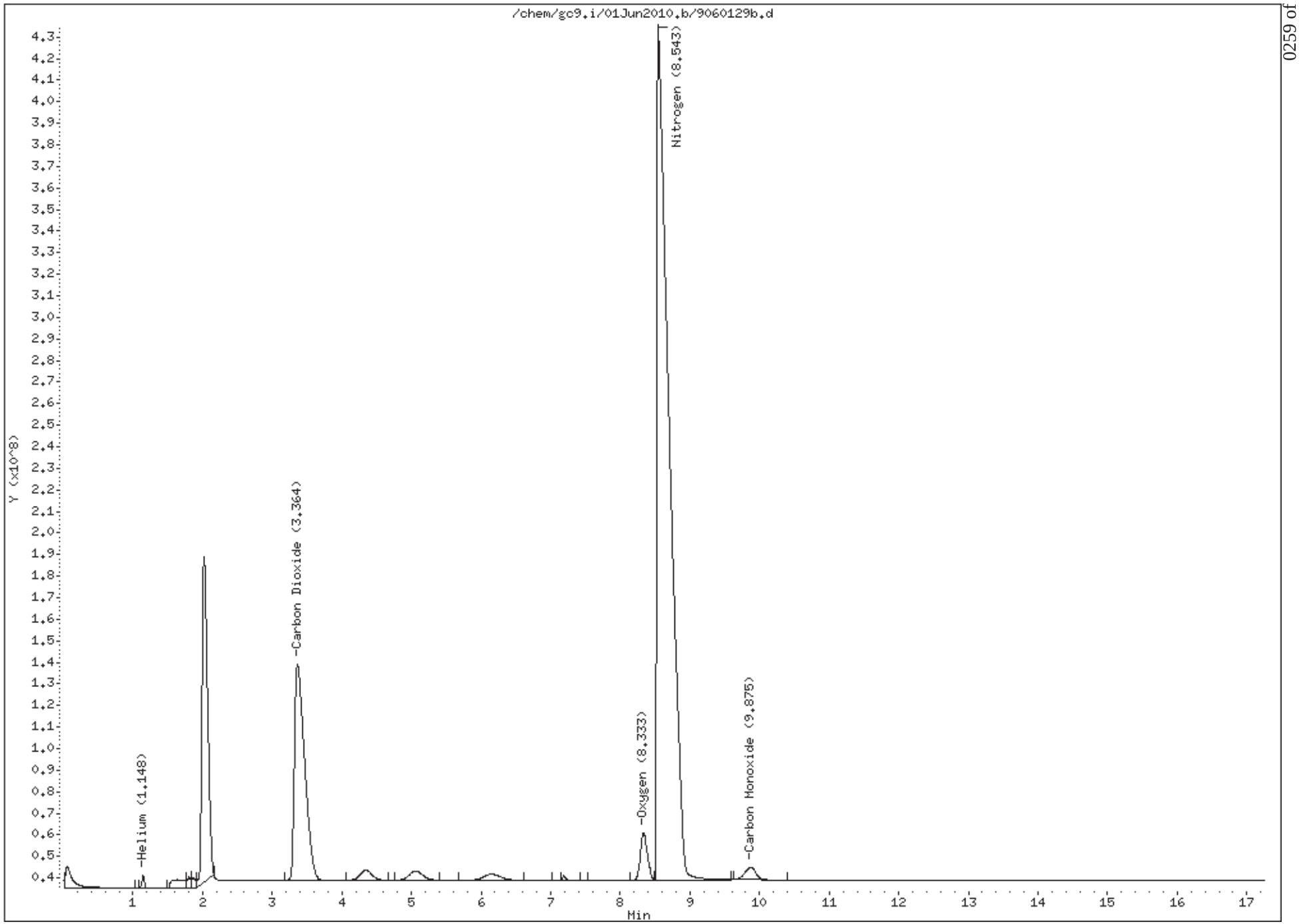
Report Date: 01-Jun-2010 22:52

Air Toxics Ltd.

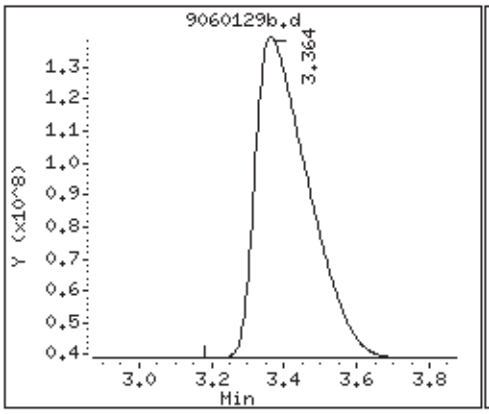
RECOVERY REPORT

Client Name: Client SDG: 01Jun2010
Sample Matrix: GAS Fraction: Atm Gas
Lab Smp Id: 1476-1477 ngas Client Smp ID: LCS
Level: LOW Operator: gd
Data Type: GC DATA SampleType: LCS
SpikeList File: 1476-1477.spk Quant Type: ESTD
Sublist File: ngas-H2.sub
Method File: /chem/gc9.i/01Jun2010.b/910n0430.m/910C0417.m
Misc Info: LCS

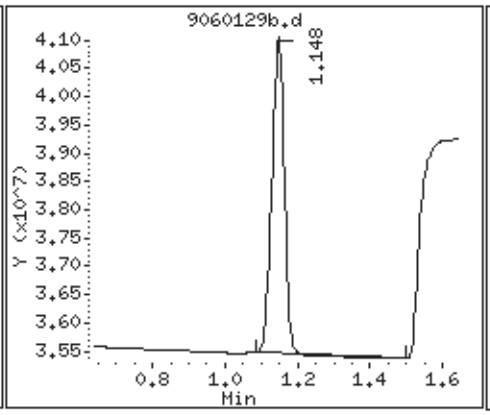
SPIKE COMPOUND	CONC ADDED %	CONC RECOVERED %	% RECOVERED	LIMITS
3 Carbon Dioxide	9.98	10.0	100.45	85-115
9 Oxygen	2.49	2.46	98.61	85-115
10 Nitrogen	70.5	70.7	100.30	85-115
12 Carbon Monoxide	1.00	0.997	99.68	85-115
1 Helium	0.998	0.976	97.85	85-115


/chem/gc9.i/01Jun2010.b/9060129b.d
Y (x10^8)
Min
-Helium (1.148)
-Carbon Dioxide (3.364)
-Oxygen (8.333)
Nitrogen (8.543)
-Carbon Monoxide (9.875)

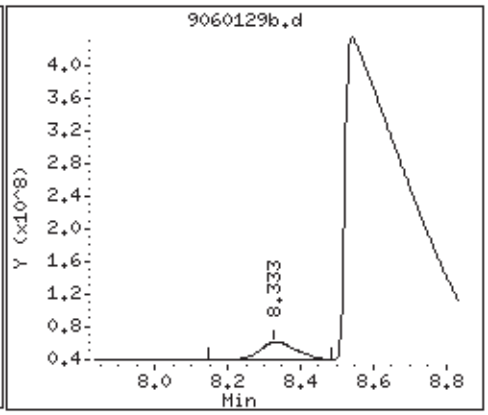
3 Carbon Dioxide



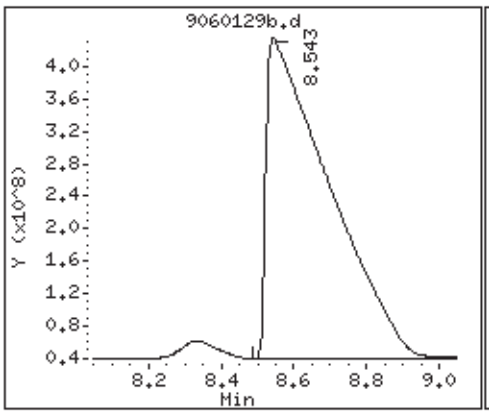
1 Helium



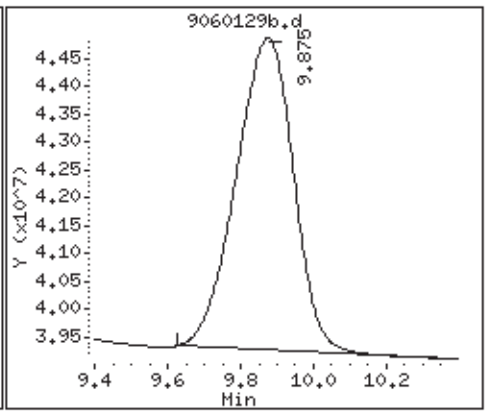
9 Oxygen



10 Nitrogen



12 Carbon Monoxide



Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 1005453B-18B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9060130b**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/1/10 10:56 PM**	

Compound	%Recovery
Hydrogen	109

Container Type: NA - Not Applicable

Report Date: 01-Jun-2010 23:18

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 01Jun2010
Sample Matrix: GAS Fraction: Atm Gas
Lab Smp Id: 1476-1450 H2 Client Smp ID: LCS
Level: LOW Operator: gd
Data Type: GC DATA SampleType: LCS
SpikeList File: 2.01%H2.spk Quant Type: ESTD
Sublist File: h2.sub
Method File: /chem/gc9.i/01Jun2010.b/910n0430.m/910C0417.m
Misc Info: LCS

SPIKE COMPOUND	CONC ADDED %	CONC RECOVERED %	% RECOVERED	LIMITS
2 Hydrogen	2.01	2.19	108.80	85-115

Air Toxics Ltd.

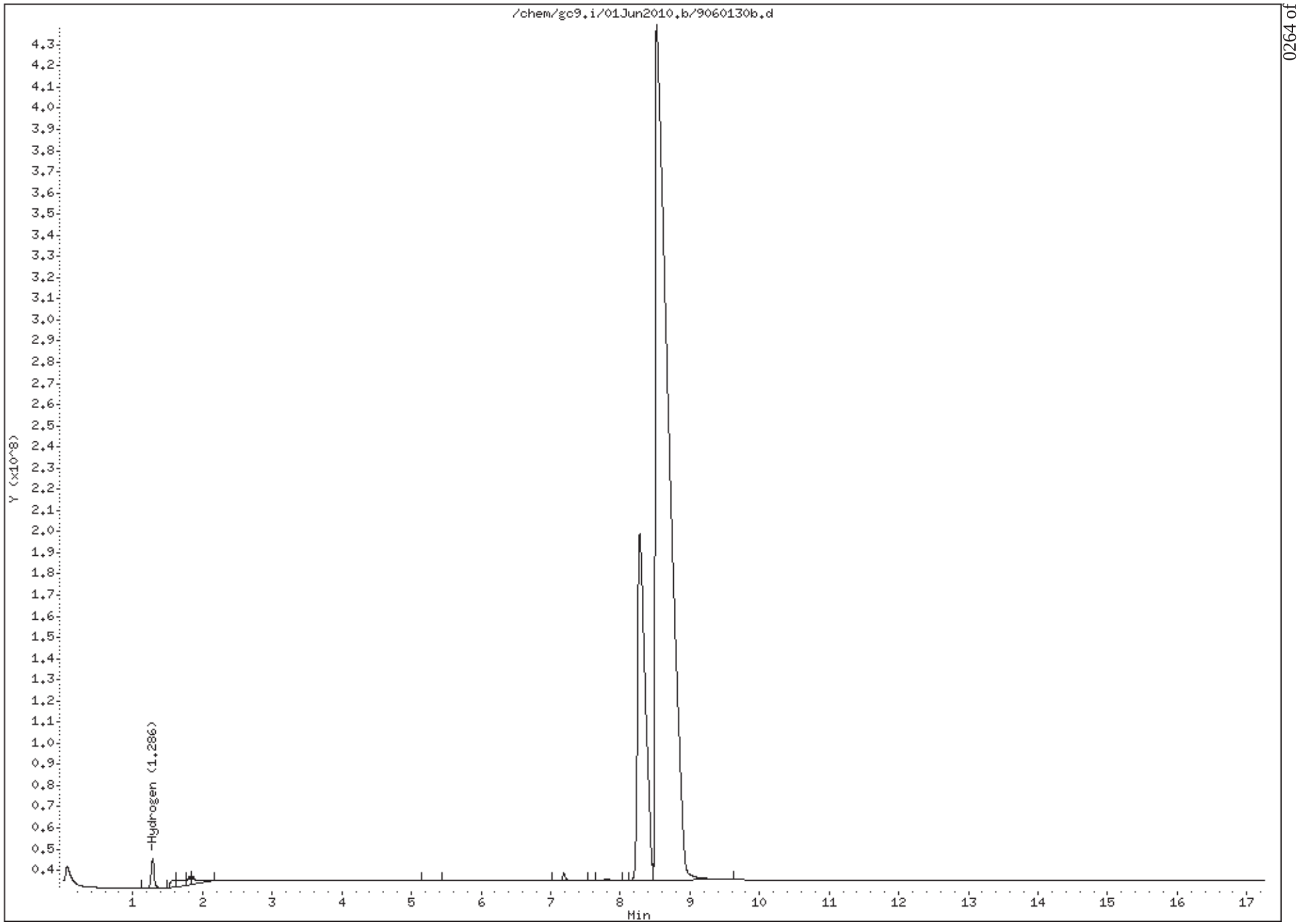
Modified ASTM D-1945

Data file : /chem/gc9.i/01Jun2010.b/9060130b.d
Lab Smp Id: 1476-1450 H2 Client Smp ID: LCS
Inj Date : 01-JUN-2010 22:56
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,;1476-1450 H2;LCS
Misc Info : LCS
Comment : GC/TCD
Method : /chem/gc9.i/01Jun2010.b/910n0430.m/910C0417.m
Meth Date : 01-Jun-2010 17:45 lyohanne Quant Type: ESTD
Cal Date : 01-JUN-2010 17:29 Cal File: 9060118b.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: h2.sub
Target Version: 3.50
Processing Host: eeyore

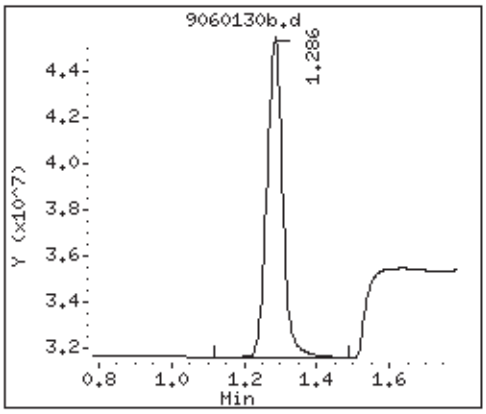
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					CONCENTRATIONS	
					ON-COLUMN	FINAL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
2 Hydrogen	1.286	1.285	0.001	209551651	2.18678	2.19


/chem/gc9.i/01Jun2010.b/9060130b.d
Y (x10^8)
Hydrogen (1.286)
Min

2 Hydrogen



Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 1005453B-18C

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9060229**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/2/10 10:02 PM**	

Compound	%Recovery
Oxygen	98
Nitrogen	100
Carbon Monoxide	100
Methane	97
Carbon Dioxide	101
Ethane	98
Ethene	98
Acetylene	100
Propane	96
Isobutane	96
Butane	94
Neopentane	97
Isopentane	98
Pentane	97
C6+	98
Helium	100

Container Type: NA - Not Applicable

Report Date: 02-Jun-2010 22:26

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 02Jun2010
Sample Matrix: GAS Fraction: Atm Gas
Lab Smp Id: 1476-1477 ngas Client Smp ID: LCS
Level: LOW Operator: gd
Data Type: GC DATA SampleType: LCS
SpikeList File: 1476-1477.spk Quant Type: ESTD
Sublist File: ngas.sub
Method File: /chem/gc9.i/02Jun2010.b/910n0430.m
Misc Info: LCS

	SPIKE COMPOUND	CONC ADDED %	CONC RECOVERED %	% RECOVERED	LIMITS
	2 Methane	9.99	9.70	97.13	85-115
	3 ethane	0.498	0.487	97.80	85-115
	4 ethene	0.500	0.488	97.71	85-115
	5 propane	0.499	0.480	96.19	85-115
	7 acetylene	0.500	0.501	100.30	85-115
	8 iso-butane	0.500	0.482	96.43	85-115
	10 n-butane	0.498	0.470	94.48	85-115
	15 neo-pentane	0.510	0.494	96.86	85-115
	16 isopentane	0.505	0.493	97.59	85-115
	17 pentane	0.503	0.488	97.06	85-115
M	37 C6+ Hydrocarbons	0.516	0.507	98.30	85-115

Air Toxics Ltd.

Modified ASTM-1945 Analysis

Data file : /chem/gc9.i/02Jun2010.b/9060229.d
Lab Smp Id: 1476-1477 ngas Client Smp ID: LCS
Inj Date : 02-JUN-2010 22:02
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,
Misc Info : LCS
Comment : GC FID
Method : /chem/gc9.i/02Jun2010.b/910n0430.m
Meth Date : 02-Jun-2010 10:55 lyohanne Quant Type: ESTD
Cal Date : 02-JUN-2010 10:32 Cal File: 9060201.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

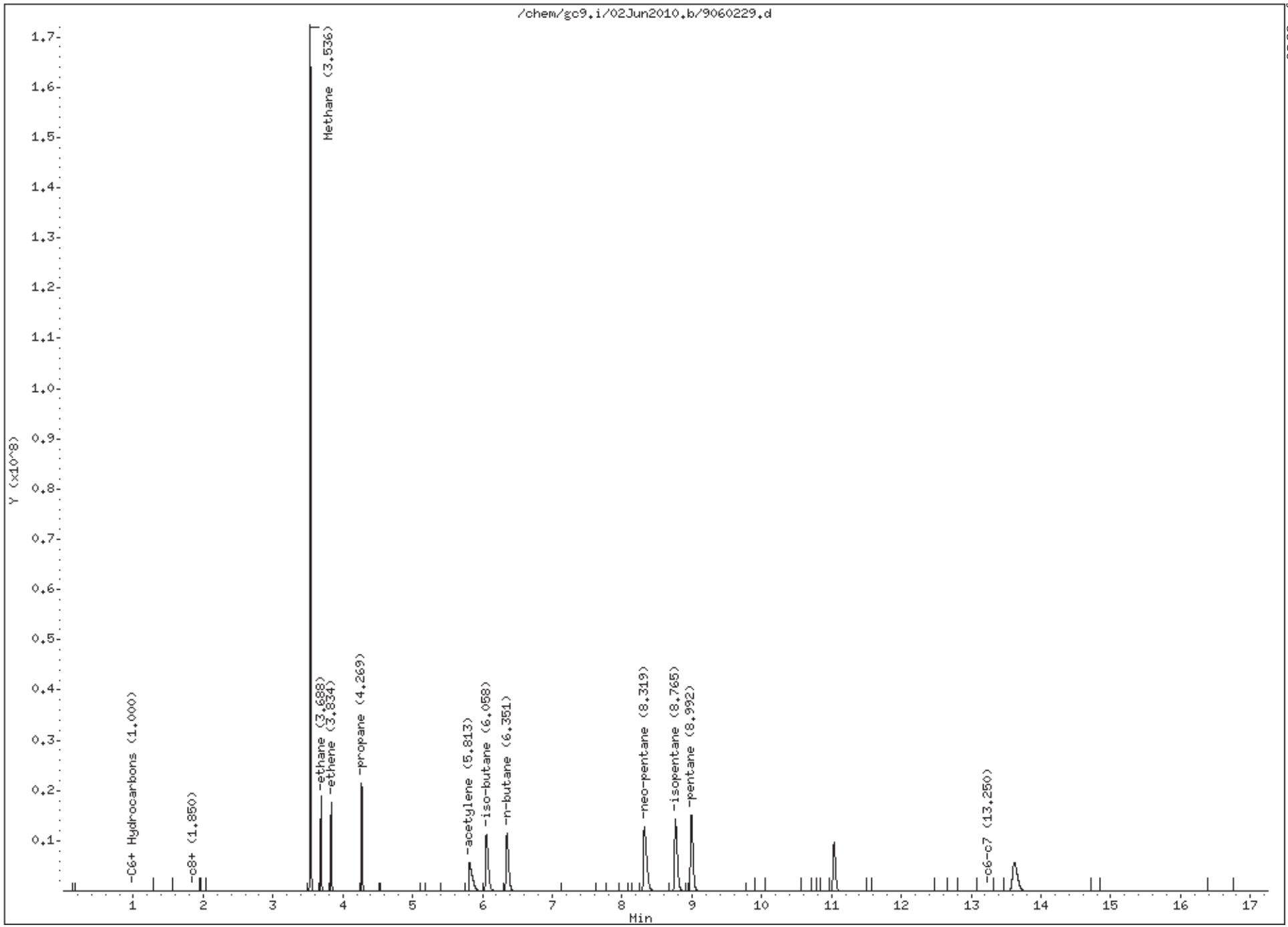
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

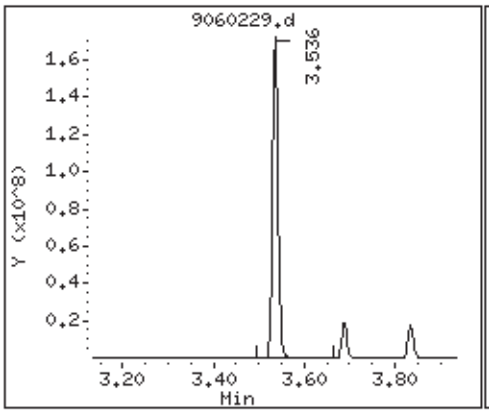
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
	2 Methane	3.536	3.536	0.000	1505553335	9.70285	9.70
	3 ethane	3.688	3.688	0.000	147890192	0.48704	0.487
	4 ethene	3.834	3.834	0.000	146314966	0.48853	0.488
	5 propane	4.269	4.271	-0.002	220376787	0.47998	0.480
	7 acetylene	5.813	5.799	0.014	189276167	0.50150	0.501(A)
	8 iso-butane	6.058	6.065	-0.007	294985893	0.48216	0.482
	10 n-butane	6.351	6.358	-0.007	289195525	0.47049	0.470
	15 neo-pentane	8.319	8.326	-0.007	401368088	0.49399	0.494
	16 isopentane	8.765	8.769	-0.004	379128398	0.49284	0.493
	17 pentane	8.992	8.996	-0.004	380508109	0.48822	0.488
M	37 C6+ Hydrocarbons				520615211	0.50721	0.507
S	22 c6-c7	9.250-17.250			519187198	0.50721	0.507
S	36 c8+	0.700-3.000			1428013		(a)

QC Flag Legend

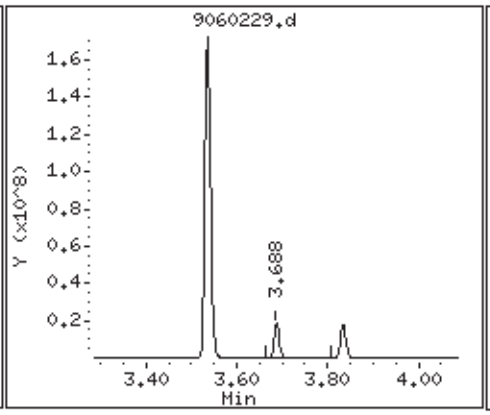
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.


/chem/gc9.i/02Jun2010.b/9060229.d
Y (x10^8)
Min
Methane (3.536)
-ethane (3.688)
-ethene (3.834)
-propane (4.269)
-C6+ Hydrocarbons (1.000)
-c8+ (1.850)
-acetylene (5.813)
-iso-butane (6.058)
-n-butane (6.351)
-neo-pentane (8.319)
-isopentane (8.765)
-pentane (8.992)
-c6-c7 (13.250)

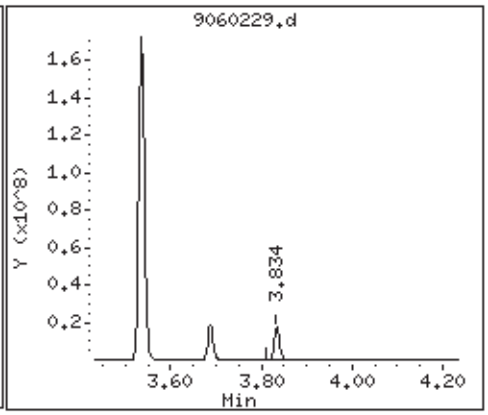
2 Methane



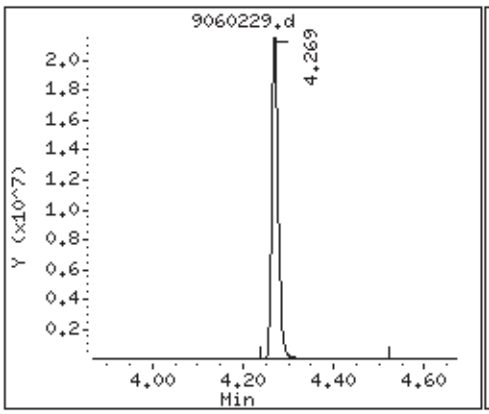
3 ethane



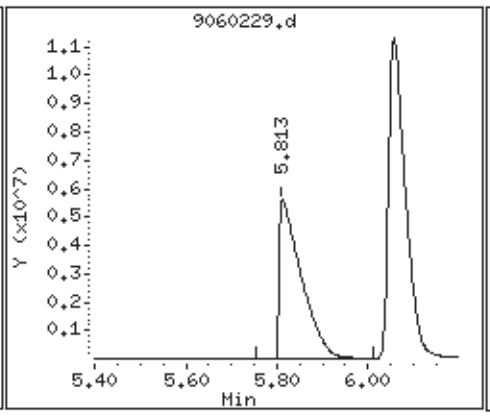
4 ethene



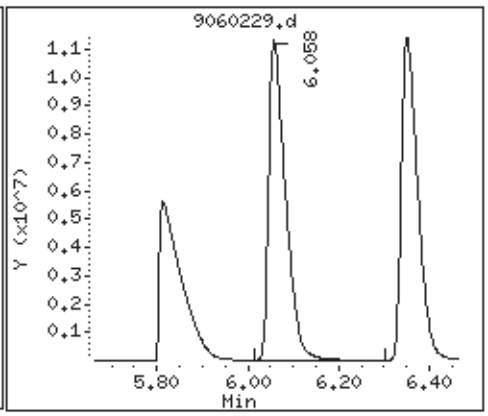
5 propane



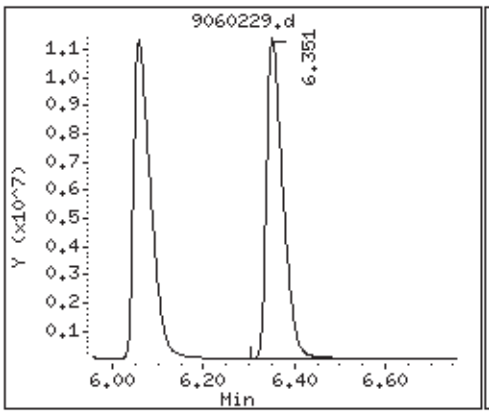
7 acetylene



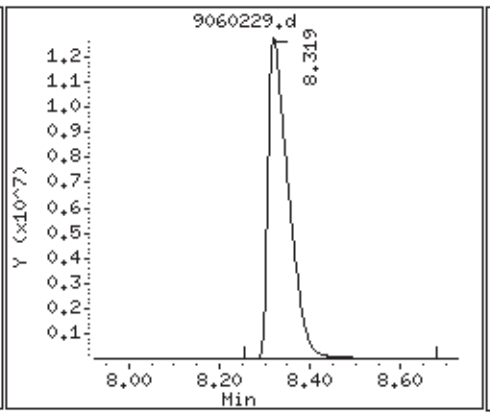
8 iso-butane



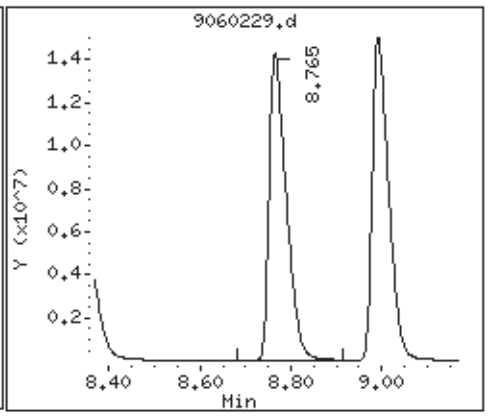
10 n-butane



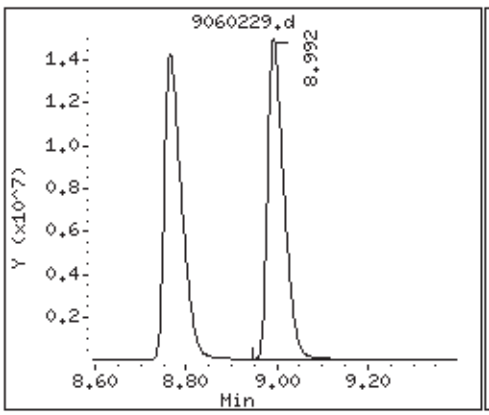
15 neo-pentane



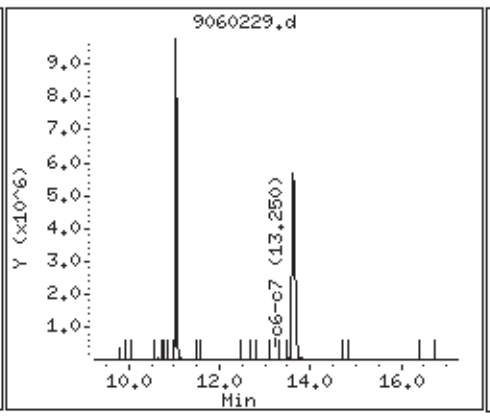
16 isopentane



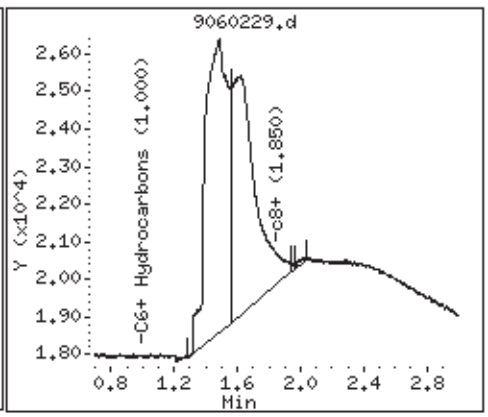
17 pentane



S 22 c6-c7



S 36 c8+



Air Toxics Ltd.

Modified ASTM D-1945

Data file : /chem/gc9.i/02Jun2010.b/9060229b.d
Lab Smp Id: 1476-1477 ngas Client Smp ID: LCS
Inj Date : 02-JUN-2010 22:02
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,;1476-1477 ngas;LCS
Misc Info : LCS
Comment : GC/TCD
Method : /chem/gc9.i/02Jun2010.b/910n0430.m/910C0417.m
Meth Date : 02-Jun-2010 22:28 lyohanne Quant Type: ESTD
Cal Date : 02-JUN-2010 10:32 Cal File: 9060201b.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ngas-H2.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
3 Carbon Dioxide	3.358	3.348	0.010	5061061492	10.0480	10.0
1 Helium	1.147	1.146	0.001	66513510	0.99772	0.998
9 Oxygen	8.332	8.330	0.002	764679324	2.43834	2.44
10 Nitrogen	8.541	8.540	0.001	24040332064	70.4284	70.4
12 Carbon Monoxide	9.872	9.878	-0.006	309332940	0.99883	0.999

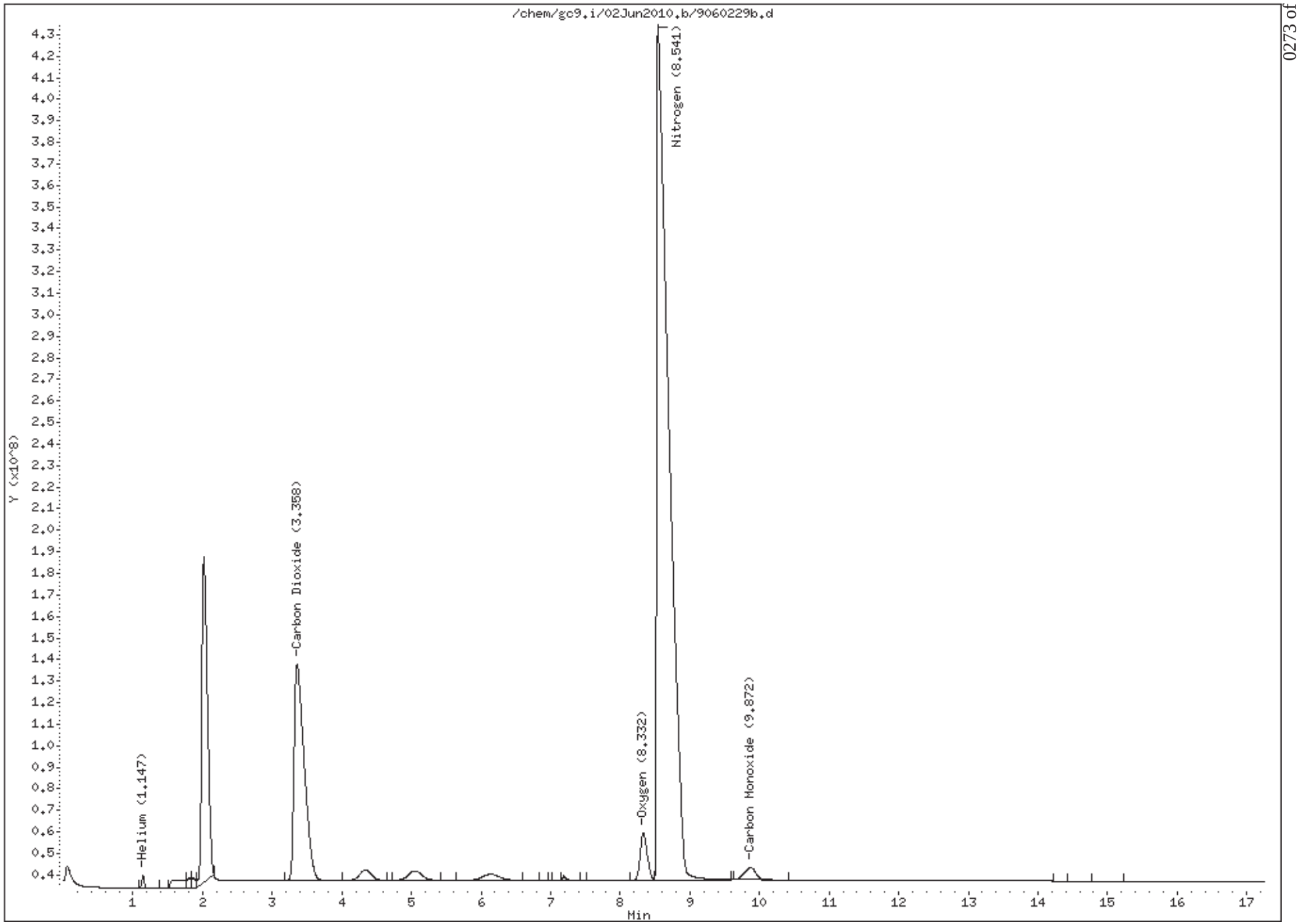
Report Date: 02-Jun-2010 22:28

Air Toxics Ltd.

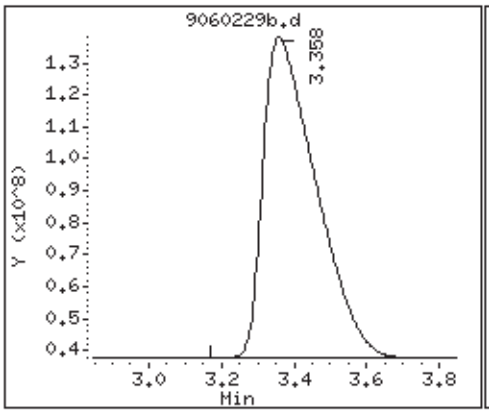
RECOVERY REPORT

Client Name: Client SDG: 02Jun2010
Sample Matrix: GAS Fraction: Atm Gas
Lab Smp Id: 1476-1477 ngas Client Smp ID: LCS
Level: LOW Operator: gd
Data Type: GC DATA SampleType: LCS
SpikeList File: 1476-1477.spk Quant Type: ESTD
Sublist File: ngas-H2.sub
Method File: /chem/gc9.i/02Jun2010.b/910n0430.m/910C0417.m
Misc Info: LCS

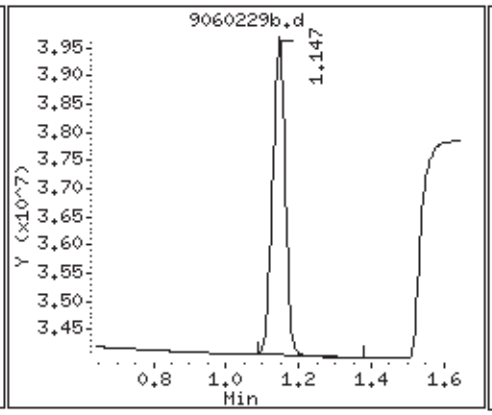
SPIKE COMPOUND	CONC ADDED %	CONC RECOVERED %	% RECOVERED	LIMITS
3 Carbon Dioxide	9.98	10.0	100.68	85-115
9 Oxygen	2.49	2.44	97.93	85-115
10 Nitrogen	70.5	70.4	99.90	85-115
12 Carbon Monoxide	1.00	0.999	99.88	85-115
1 Helium	0.998	0.998	99.97	85-115


/chem/gc9.i/02Jun2010.b/9060229b.d
Y (x10^8)
Min
-Helium (1.147)
-Carbon Dioxide (3.358)
-Oxygen (8.332)
Nitrogen (8.541)
-Carbon Monoxide (9.872)

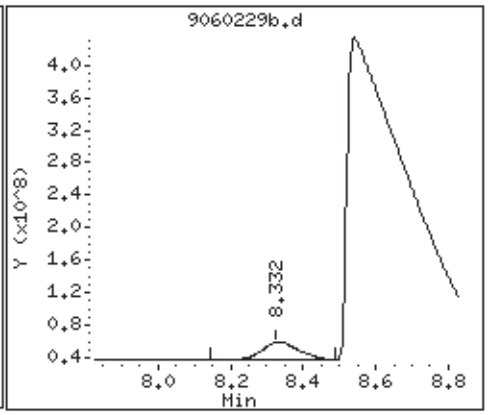
3 Carbon Dioxide



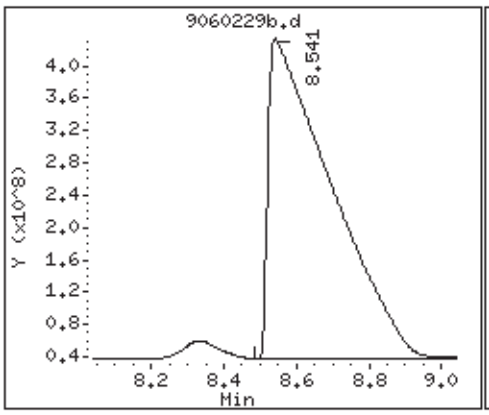
1 Helium



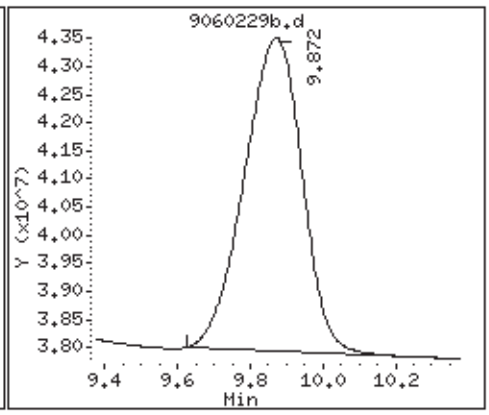
9 Oxygen



10 Nitrogen



12 Carbon Monoxide



Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 1005453B-18D

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9060231b**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/2/10 10:48 PM**	

Compound	%Recovery
Hydrogen	100

Container Type: NA - Not Applicable

Report Date: 02-Jun-2010 23:05

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 02Jun2010
Sample Matrix: GAS Fraction: Atm Gas
Lab Smp Id: 1476-1450 H2 Client Smp ID: LCS
Level: LOW Operator: gd
Data Type: GC DATA SampleType: LCS
SpikeList File: 2.01%H2.spk Quant Type: ESTD
Sublist File: h2.sub
Method File: /chem/gc9.i/02Jun2010.b/910n0430.m/910C0417.m
Misc Info: LCS

SPIKE COMPOUND	CONC ADDED %	CONC RECOVERED %	% RECOVERED	LIMITS
2 Hydrogen	2.01	2.01	100.12	85-115

Air Toxics Ltd.

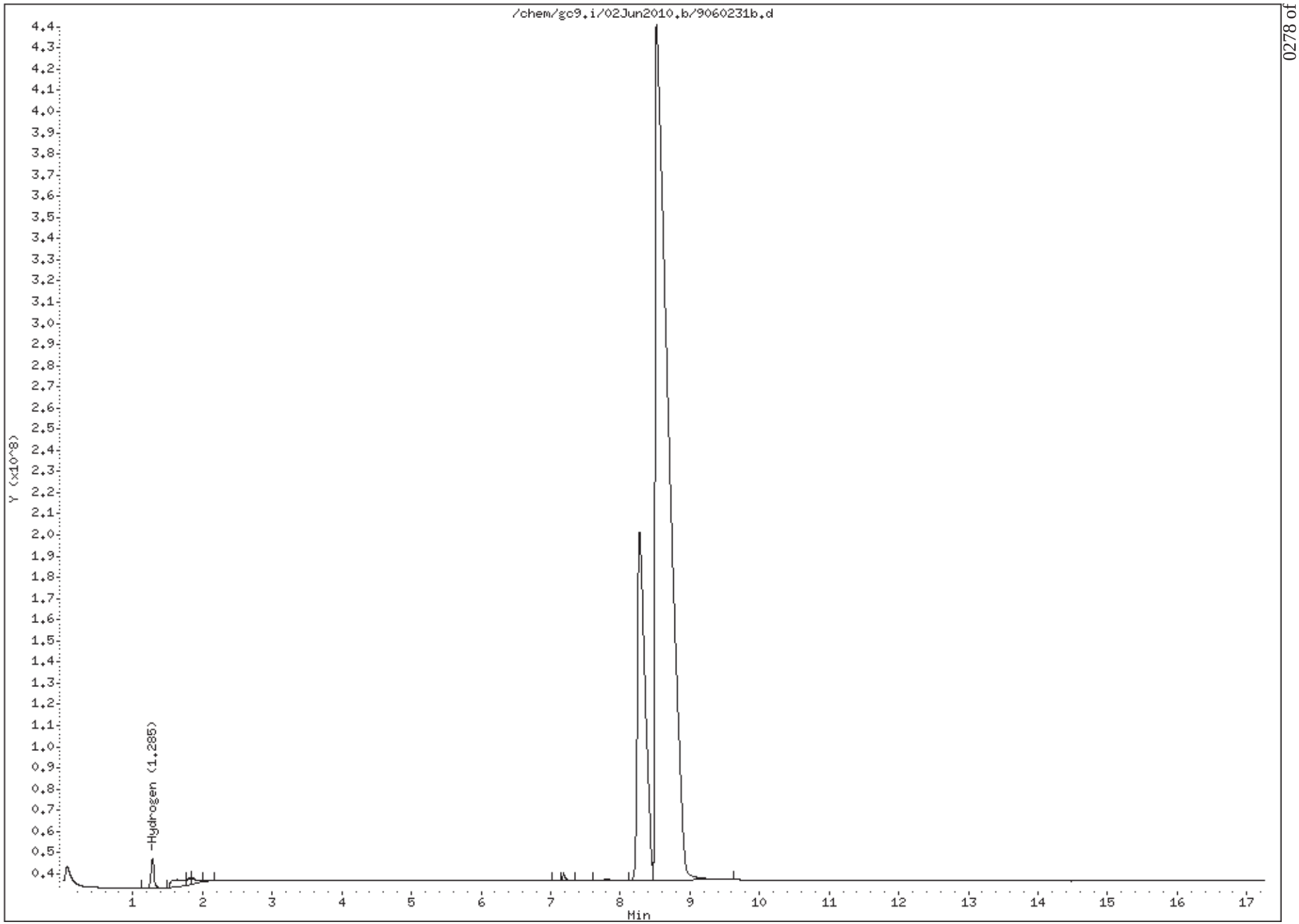
Modified ASTM D-1945

Data file : /chem/gc9.i/02Jun2010.b/9060231b.d
Lab Smp Id: 1476-1450 H2 Client Smp ID: LCS
Inj Date : 02-JUN-2010 22:48
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,;1476-1450 H2;LCS
Misc Info : LCS
Comment : GC/TCD
Method : /chem/gc9.i/02Jun2010.b/910n0430.m/910C0417.m
Meth Date : 02-Jun-2010 22:28 lyohanne Quant Type: ESTD
Cal Date : 02-JUN-2010 10:32 Cal File: 9060201b.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: h2.sub
Target Version: 3.50
Processing Host: eeyore

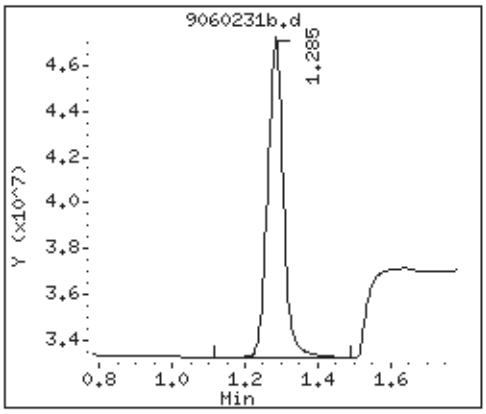
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
2 Hydrogen	1.285	1.285	0.000	210000348	2.01238	2.01


/chem/gc9.i/02Jun2010.b/9060231b.d
Y (x10^8)
Hydrogen (1.285)
Min

2 Hydrogen



@Air Toxics Ltd.
Method: ASTM 1945 / 1946

GC-9

Logbook #: 1969
Leak Test : Ly

	USE	File #	Sample Name/Client ID	Can #	Pressure	Amt	DF	Date	Time	Review Init.	Comments
1	✓	9060101	1544-365B Ngas	34219	NA	1.0mL	1.00	6/1/10	0739	Ly	CCV
2	✓	02	N_2 Lab Blank	33868					0810		
3	X	03	He Lab Blank	14014					0912		Irregular Baseline
4	✓	04	He Lab Blank	"	↓				0935		
5	✓	05	1005630B - 01A	34578	27.6"Hg → 15psi				1003		
6	C	06	-01A	"	"				1026		
7	✓	07	-02A	33723	4.8"Hg → 15psi		2.40		1053		
8	✓	08	1005487B -01A	36448	0.6"Hg → 15psi		2.06		1116		
9	✓	09	-02A	37390	1.4"Hg → 15psi		2.12		1140		
10	✓	10	-03A	36501					1200		
11	✓	11	-04A	35634	↓				1222		
12	✓	12	-05A	37304	1.2"Hg → 15psi		2.10		1315		
13	✓	13	-01AA	36448	0.6"Hg → 15psi		2.06		1342		Dup w/ 9060108
14	✓	14	1005664C -01A	1467	4.0"Hg → 15psi		2.33		1415	gpl	
15	✓	15	-01AA	↓	↓	↓	↓	↓		↓	Dup

Calculation Check: File ID: 9060108 Compound: CH_4 Initials: Ly

Sample Amt = $\frac{\text{Area Counts Sample}}{\text{RF}}$ × Dilution Factor = $\frac{(\ 1265314\ )}{(\ 151506245\ )} \times (\ 1.00\ ) =$ 0.00835

Reported Result: 0.00835

gpl
Signed

6/1/10
Date

@Air Toxics Ltd. GC-9 **Logbook #:** 1969

Method: Astm 1945/1946 **Leak Test :** gd

0241 of 0809

	USE	File #	Sample Name/Client ID	Can #	Pressure	Amt	DF	Date	Time	Review Init.	Comments
1	✓	9060116	1005664C – 02A	37324	4.5"Hg → 15psi	1.0mL	2.38	6/1/10	1525	gd	
2	✓	17	↓ – 03A	2032	|	|	|	|	1547	|	
3	✓	18	1476-977 H2	NA	NA	|	1.00	|	1729	|	CCV
4	✓	19	N2 Lab Blank	33868	|	|	↓	|	1754	|	H2 only
5	✓	20	1005453B – 01A	3748	9.0"Hg → 5psi	|	1.91	|	1817	|	
6	✓	21	– 01AA	|	↓	|	|	|	1838	|	Dup
7	✓	22	– 02A	13667	↓	|	|	|	1900	|	
8	✗	23	– 03A	33382	8.4"Hg → 5psi	|	1.86	|	2008	|	Sample re-ran
9	✓	24	– 04A	5743	14"Hg → 5psi	|	2.51	|	2033	|	
10	✓	25	– 05A	34725	8.6"Hg → 5psi	|	1.88	|	2054	|	
11	✓	26	– 14A	34371	9.8"Hg → 5psi	|	1.99	|	2125	|	
12	✓	27	– 15A	4188	10"Hg → 5psi	|	2.01	|	2147	|	
13	✓	28	↓ – 16A	35170	8.8"Hg → 5psi	|	1.90	|	2210	|	
14	✓	29	1476-1477 Ngas	NA	NA	|	1.00	|	2232	|	LCS
15	✓	30	1476-1450 H2	↓	↓	↓	↓	↓	2256	↓	LCS

Calculation Check: File ID: 9060120 Compound: Oxygen Initials: gd

Sample Amt = $\frac{\text{Area Counts Sample}}{\text{RF}} \times \text{Dilution Factor} = \frac{(20701|4500)}{(311880992)} \times (1.91) =$ **12.7 %**

Reported Result: **12.7 %**

gd
Signed

6/1/10
Date

@Air Toxics Ltd. | **GC-9** | **Logbook #: 1969**

Method: ASTM 1945/1946

Leak Test: cy

	USE	File #	Sample Name/Client ID	Can #	Pressure	Amt	DF	Date	Time	Review Init.	Comments
1	✓	9060201	1544-365B Ngas	34219	NA	1.0ml	1.0	6/2/10 ~~103~~	1032	cy	ccv
2	✓	02	1476-977 H_2	NA	↓	↓	↓	6/2/10 (gl 6/2/10)	1104	↓	ccv
3	✓	03	N_2 Lab Blank	33868				↓	1127		
4	✓	04	He Lab Blank	14014					1152	↓	
5	✓	05	1006001B-01A	34607	28.2"Hg → 15psi				1218	gm	TripBlank,027RL
6	C	06	↓ -01A	↓	↓		↓		1240	|	Confirmation
7	✓	07	1006002~~B~~C-01A (gd 6/2/10)	2169	4.4"Hg → 15psi		2.37		1304	gd	
8	✓	08	↓ -02A	2107	4.0"Hg → 15psi		2.33		1330	cy	
9	✓	09	1005453B-03A	33382	8.4"Hg → 15psi		1.86		1402	gd	↩
10	C	10	-03AA	|	| (gm 6/3/10)		|		1424	↓	Dup
11	✓	11	1006002~~B~~C-03A (gd 6/2/10)	3028	6.4"Hg → 15psi		2.57		1450		
12	✓	12	1006005C-01A	11441	3.0"Hg → 15psi		2.24		1512		
13	✓	13	-02A	1478	5.0"Hg → 15psi		2.42		1533		
14	✓	14	↓ -03A	2130	|		2.42		1556		
15	✓	↓ 15	1006003C-01A	3046	3.8"Hg → 15psi	↓	2.31	↓	1620	↓	

Calculation Check: File ID: 9060201 Compound: CH_4 Initials: gd

Sample Amt = $\frac{\text{Area Counts Sample}}{\text{RF}}$ × Dilution Factor = $\frac{(154390266\,3)}{(155166097)}$ × (1.00) = 9.95%

Reported Result: 9.95%

Signed: gd Date: 6/2/10

 Revised 04/05

@Air Toxics Ltd. GC-9 **Logbook #:** 1969

Method: Astm 1945/1946 **Leak Test :** gd

	USE	File #	Sample Name/Client ID	Can #	Pressure	Amt	DF	Date	Time	Review Init.	Comments
1	✓	9060216	1606603C - 02A	9450	2.8"Hg→15psi	1.0mL	2.23	6/2/10	1643	gd	
2	✓	17	↓ -03A	31756	3.6"Hg→15psi	↓	2.30	↓	1705	↓	
3	✓	18	1606604C - 01A	34122	4.0"Hg→15psi		2.33		1739		
4	✓	19	-01AA	↓	↓		↓		1803		Dup
5	✓	20	-02A	35623	4.8"Hg→15psi		2.40		1825		
6	✓	21	↓ -03A	37435	5.0"Hg→15psi		2.42		1848		
7	✓	22	1605488B - 01A	33945	4.0"Hg→5psi		1.55		1911		↑CH4
8	✓	2327 6/2/10	↓ -01B	↓	↓	(10:48) 1.0mL	6.20		1937		CH4 only
9	✓	2428	1605522B - 01A	33559	5.4"Hg→5psi	1.0mL	1.63		2002		
10	✓	2529	-01AA	↓	↓	↓	↓		2028		Dup
11	✓	2630	-02A	34445	6.0"Hg→5psi		1.68		2052		
12	✓	27	-04A	35285	4.0"Hg→5psi		1.55		2118		gd 6/2/10
13	✓	28	↓ -11A	4235	28.5"Hg→5psi		1.60		2140		TB
14	✓	29	1476-1477 Ngas	NA	NA		1.00		2202		LCS
15	✓	↓ 30	↓	↓	↓	↓	↓	↓	2226	↓	LCSD

Calculation Check: File ID: 9060216 Compound: Oxygen Initials: gd

Sample Amt = $\frac{\text{Area Counts Sample}}{\text{RF}}$ × Dilution Factor = $\frac{(2982969477)}{(313606751)}$ × (2.23) = **21.2 %**

Reported Result: **21.2 %**

gd — Signed

6/2/10 — Date

@Air Toxics Ltd.
Method: Astm 1945/1946

GC-9

Logbook #: 1969
Leak Test : gd

	USE	File #	Sample Name/Client ID	Can #	Pressure	Amt	DF	Date	Time	Review Init.	Comments
1	✓	90602-31	1476-1450 H_2	NA	NA	1.0mL	1.60	6/2/10	2248	gd	LCS
2	✓	↓ 32	↓	↓	↓	↓	↓	↓	2311	↓	LCSD
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15							gd	6/2/10			

Calculation Check: File ~~ID~~: _____ Compound: _____ ~~Initials~~: _____

Sample Amt = $\frac{\text{Area Counts Sample}}{\text{RF}} \times \text{Dilution Factor} = \frac{(\quad)}{(\quad)} \times (\quad) =$ [redacted]

Reported Result: [redacted] gd 6/2/10

gd
Signed

6/2/10
Date

Shipping/ Receiving Documents

Air Toxics LTD.
Laboratory Services Since 1989

Air Toxics Ltd. Sample Receipt Confirmation Cover Page

Thank you for choosing Air Toxics Ltd. We have received your samples and have listed any Sample Receipt Descrepancies below.

In order to expedite analysis and reporting, please review the attached information for

For corrections ca **Karen Lopez at 916-985-1000**

ATL will proceed with the analysis as specified on the Chain of Custody and Sample Receipt Summary page.

Please note : The Sample Receipt Confirmation, including the total workorder charge, is subject to change upon secondary review. Our aim is to provide a confirmation to you in a timely manner. Sample Receipt Discrepancies, if any, may not include discrepancies regarding sample receipt pressure(s). Additionally, the Chain of Custody (COC) will be provided with the final report.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630

(916) 985-1000 .FAX (916) 985-1020
Hours 6:30 A.M to 5:30 P.M. PST

Revised COC
5-27-10

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

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

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

Project Manager: Melissa Kleven
Collected by: (Print and Sign) Eric Cherry/EMK
Company: Exponent Email: mkleven@exponent.com
Address: 15375 SE 30th Pl City: Bellevue State: WA Zip: 98007
Phone: 425-519-8774 Fax: 425-519-8799

Project Info:
P.O. #: —
Project #: 0907194.000.0001
Project Name: Heglar-Kronquist

Turn Around Time:
☒ Normal
☐ Rush
specify

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

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
	~~GV-01~~ KP		~~5-16-10~~ KP		~~A~~ KP		~~8.5~~ KP		
	~~GV-06~~ KP						~~9.5~~ KP		
	~~GV-07~~ KP						~~5.5~~ KP		
01A	GV-9	1575	5-16-10	11:41	ASTM D-1945, EPA TO-15 and gas-range pet. Hydrocarbons	29.0	8.0		
02A	GV-10	13667	↓	11:42	↓	29.1	9.1		
03A	GV-11	3038		13:39		28.4	7.0		
04A	GV-12	1330		23:00	HOLD	29.0	14.0		
05A	GV-13	3370	↓	14:27	TO-15, ASTM D-1945 gas-range hydro.	28.4	7.8		
06A	ALF-1	9913	5-17-~~10~~	12:30	HOLD	28.5	9.5		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
[signature]	5-18-10 /1730	Monica Gregson ATL	5/19/10 900
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes:
"GV" samples are down-hole
"ALF" & "AOS" are ambient

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Fed Ex		NA	Good	(Yes) No None	1005453

Form 1293 rev.11

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
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Company: Exponent Email: MKleven@exponent.com
Address: 15375 SE 30th City: Bellevue State: WA Zip: 98007
Phone: 425-519-8774 Fax: 425-519-8799

Project Info:
P.O. #: —
Project #: 0907194.000.0601
Project Name: Heglar Kronquist

Turn Around Time:
[X] Normal
[ ] Rush
specify

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

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
07A	ALF-2	35972	5-17-10	12:32	HOLD	28.5	4.5		
08A	ALF-3	415		12:34	HOLD	29.0	8.0		
09A	ALF-4	9945		12:36	HOLD	29.3	10.5		
10A	ALF-5	34223		12:43	HOLD	29.1	9.5		
11A	AOS-1	12074		13:14	HOLD	27.5	7.5 LP		
12A	AOS-2	R-7		13:11	HOLD	27.2	6.5		
13A	AOS-3	25276	5-17-10	13:32	HOLD	28.8	6.2		
14A	GV-1	34371	5-16-10	11:36	ASTMD-1945, TO-15 and gas-range nat. hydro.	28.4	8.5		
15A	GV-6	1571	5-16-10	12:17	↓	29.1	9.5		
16A	GV-7	2335	5-16-10	12:54	↓	26.3	5.5		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
[signature]	5.18-10 / 1730	Monica Gregersen AIR	
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes: 5/19/10 900

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Fed Ex		NA	Good	(Yes) No None	1005453

Form 1293 rev.11

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

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
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Project Manager: Melissa Kleven
Collected by: (Print and Sign) Eric Cherry / EMA
Company: Exponent Email: mkleven@exponent.com
Address: 15375 SE 30th Pl City: Bellevue State: WA Zip: 98007
Phone: 425-519-8774 Fax: 425-519-8799

Project Info:
P.O. #: —
Project #: 0907194.000.0001
Project Name: Hegler-Kronquist

Turn Around Time:
☐ Normal
☐ Rush
specify

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

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum: Initial Vacuum	Final Vacuum	Receipt (psi)	Final (psi)
	GV-13	1	5-16-10	15:27	Siloxane: Air Toxics Method 71	20.7 L		3 hr	
	GV-13	2	5-16-10	15:27	↓	20.7 L		3 hr	
33A	GV-9	—	5-15-10	19:06 / 15:56 / 22:30	PCBs: EPA TO-15	3 L/min		4 hr	
34A	GV-10	—	5-15-10	15:50 / 22:30	PCBs: EPA TO-15	1.5 L/min		4 hr	
35A	PCB Trip Blank	—	—	—	PCBs: EPA TO-15	—	—		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
[signature]	5.18.10 / 1730	Monica Gregsen AIR	5/19/10 900
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes:

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Fed Ex		NA	Good	(Yes) No None	1005453

Form 1293 rev.11

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

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

Project Manager Melissa Kleven
Collected by: (Print and Sign) Eric Cherry/EMK
Company Exponent Email mkleven@exponent.com
Address 15375 SE 30th Pl City Bellevue State WA Zip 98007
Phone 425-519-8774 Fax 425-519-8799

Project Info:
P.O. # —
Project # 0907194.000-0601
Project Name Hegl ar-Kronquist

Turn Around Time:
☒ Normal
☐ Rush
specify

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

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
	~~GV-01~~ KP		~~5-16-10~~ KP		A KP		~~8.5~~ KP KP		
	~~GV-06~~ KP						~~9.5~~ KP		
	~~GV-07~~ KP						~~5.5~~ KP		
01A	GV-09	1575	5-16-10	11:41	ASTM D-1945, EPA TO-15	29.0	8.0		
02A	GV-10	13667	↓	11:42	2nd gas-range petroleum hydrocarbons	29.0	9.1		
03A	GV-11	3038		13:39		29.0	7.0		
04A	GV-12	1330		23:00		29.0	8.0		
05A	GV-13	3370	↓	14:27		29.5	7.8		
06A	ALF-1	9913	5-17-10	12:30	↓	28.5	9.5		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
[signature]	5-18-10 /1730	Monica Gregsen ATL	5/19/10 900
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes:

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Fed Ex		NA	Good	(Yes) No None	1005453

Form 1293 rev.11

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

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

Project Manager: Melissa Kleven
Collected by: (Print and Sign) Eric Cherry
Company: Exponent Email: mkleven@exponent.com
Address: 15375 SE 30th City: Bellevue State: WA Zip: 98007
Phone: 425-519-8774 Fax: 425-519-8799

Project Info:
P.O. #: —
Project #: 0907194.000.0601
Project Name: Heglar Kronquist

Turn Around Time:
[X] Normal
[ ] Rush
specify

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

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
07A	ALF-2	35972	5-17-10	12:32	ASTM D-1945, EPA TO-15 and gas-range petroleum hydrocarbons	28.7	4.5		
08A	ALF-3	415		12:34		29.0	8.0		
09A	ALF-4	9945		12:36		28.8	10.5		
10A	ALF-5	34223		12:43		29.0	9.5		
11A	AOS-1	12074		13:14		28.6	7.5		
12A	AOS-2	R-7		13:11		27.2	6.5		
13A	AOS-3	25276	5-17-10	13:32		28.2	6.2		
14A	GV-01	34371	5-16-10	11:36		29.5	8.5		
15A	GV-06	1571	5-16-10	12:17		29.5	9.5		
16A	GV-07	2335	5-16-10	12:54		29.0	5.5		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
[signature]	5.18-10 / 1730	Monica Gregzen AIR	5/19/10 900

Notes:

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Fed Ex		NA	Good	Yes / No / None	1005453

Form 1293 rev.11

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

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

Page 6 of 6

Project Manager: Melissa Kleven
Collected by: (Print and Sign) Eric Cherry / EMA
Company: Exponent Email: mkleven@exponent.com
Address: 15375 SE 30th Pl City: Bellevue State: WA Zip: 98007
Phone: 425-519-8774 Fax: 425-519-8799

Project Info:
P.O. #: —
Project #: 0907194.000.0601
Project Name: Heglar-Kronquist

Turn Around Time:
☐ Normal
☐ Rush
specify

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

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final (Volume)	Receipt	Final (psi)
	GV13-1	—	5-16-10	15:27	Siloxane: Air Toxics Method 71	20.16L		3hr	
	GV13-2	—	5-16-10	15:27	↓	20.16L		3hr	
33A	GV9	—	5-15-10	~~19:06/23:06~~ ~~18:50/22:50~~	PCBs: EPATO-15	3L/min		4hr	
34A	GV10	—	5-15-10	18:50/22:50	PCBs: EPATO-15	1.5L/min		4hr	
35A	PCB Trip Blank	—	—	—	PCBs: EPATO-15	—	—		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
[signature]	5.18.10/1730	Monica Green AT	5/19/10 900
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes:

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Fed Ex		NA	Good	(Yes) No None	1005453

Form 1293 rev.11

Air Toxics LTD.
Laboratory Services Since 1989

SAMPLE RECEIPT SUMMARY

WORKORDER 1005453B

Client

Ms. Melissa Kleven
Exponent
15375 SE 30th Place
Suite 250
Bellevue, WA 98007

Sales Rep: JJM

Phone

425-519-8774

Fax

425-643-9827

Date Promised: 06/03/10
Date Completed: 6/3/10
Date Received: 5/19/10
PO#:
Project#: 0907194.000.0601 Heglar - Kronquist

Total $: $ 1,050.00
Logged By: MG

Fraction	Sample #	Analysis	Collected	Receipt Vac./Pres.	Amount$
01A	GV-9	Modified ASTM D-1945	5/16/2010	9.0 "Hg	$150.00
01AA	GV-9 Lab Duplicate	Modified ASTM D-1945	5/16/2010	9.0 "Hg	$0.00
02A	GV-10	Modified ASTM D-1945	5/16/2010	9.0 "Hg	$150.00
03A	GV-11	Modified ASTM D-1945	5/16/2010	8.4 "Hg	$150.00
03AA	GV-11 Lab Duplicate	Modified ASTM D-1945	5/16/2010	8.4 "Hg	$0.00
04A(on hold)	GV-12	Modified ASTM D-1945	5/16/2010	14.0 "Hg	$0.00
05A	GV-13	Modified ASTM D-1945	5/16/2010	8.6 "Hg	$150.00
06A(on hold)	ALF-1	Modified ASTM D-1945	5/17/2010	10.0 "Hg	$0.00
07A(on hold)	ALF-2	Modified ASTM D-1945	5/17/2010	3.6 "Hg	$0.00
08A(on hold)	ALF-3	Modified ASTM D-1945	5/17/2010	10.2 "Hg	$0.00
09A(on hold)	ALF-4	Modified ASTM D-1945	5/17/2010	11.0 "Hg	$0.00
10A(on hold)	ALF-5	Modified ASTM D-1945	5/17/2010	10.0 "Hg	$0.00
11A(on hold)	AOS-1	Modified ASTM D-1945	5/17/2010	9.0 "Hg	$0.00
12A(on hold)	AOS-2	Modified ASTM D-1945	5/17/2010	9.2 "Hg	$0.00
13A(on hold)	AOS-3	Modified ASTM D-1945	5/17/2010	6.8 "Hg	$0.00
14A	GV-1	Modified ASTM D-1945	5/16/2010	9.8 "Hg	$150.00
15A	GV-6	Modified ASTM D-1945	5/16/2010	10.0 "Hg	$150.00
16A	GV-7	Modified ASTM D-1945	5/16/2010	8.8 "Hg	$150.00
17A	Lab Blank	Modified ASTM D-1945	NA	NA	$0.00

Note: Samples received after 3 P.M. PST are considered to be received on the following work day.
Atlas Project Name/Profile#: Heglar Kronquist/14301

BILL TO: Ms. Melissa Kleven
Exponent
15375 SE 30th Place
Suite 250
Bellevue, WA 98007

Analysis Code: ASTM

TERMS: NET 30

Reporting Method: Modified ASTM D-1945 + He

Air Toxics LTD.
Laboratory Services Since 1989

SAMPLE RECEIPT SUMMARY Continued

Client

Ms. Melissa Kleven
Exponent
15375 SE 30th Place
Suite 250
Bellevue, WA 98007

Sales Rep: JJM

Phone

425-519-8774

Fax

425-643-9827

Date Promised: 06/03/10
Date Completed: 6/3/10
Date Received: 5/19/10
PO#:
Project#: 0907194.000.0601 Heglar - Kronquist

Total $: $ 1,050.00
Logged By: MG

Fraction	Sample #	Analysis	Collected	Receipt Vac./Pres.	Amount$
17B	Lab Blank	Modified ASTM D-1945	NA	NA	$0.00
17C	Lab Blank	Modified ASTM D-1945	NA	NA	$0.00
17D	Lab Blank	Modified ASTM D-1945	NA	NA	$0.00
18A	LCS	Modified ASTM D-1945	NA	NA	$0.00
18B	LCS	Modified ASTM D-1945	NA	NA	$0.00
18C	LCS	Modified ASTM D-1945	NA	NA	$0.00
18D	LCS	Modified ASTM D-1945	NA	NA	$0.00

Note: Samples received after 3 P.M. PST are considered to be received on the following work day.
Atlas Project Name/Profile#: Heglar Kronquist/14301

BILL TO: Ms. Melissa Kleven
Exponent
15375 SE 30th Place
Suite 250
Bellevue, WA 98007

Analysis Code: ASTM

TERMS: NET 30

Reporting Method: Modified ASTM D-1945 + He

Other Records

Air Toxics Ltd.

Modified ASTM D-1945

Data file : /chem/gc9.i/01Jun2010.b/9060120b.d
Lab Smp Id: 1005453B-01A
Inj Date : 01-JUN-2010 18:17
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,3748;1005453B-01A;
Misc Info : 9.0"Hg->5psi
Comment : GC/TCD
Method : /chem/gc9.i/01Jun2010.b/910n0430.m/910C0417.m
Meth Date : 01-Jun-2010 17:45 lyohanne Quant Type: ESTD
Cal Date : 01-JUN-2010 17:29 Cal File: 9060118b.d
Als bottle: 1
Dil Factor: 1.91000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
2 Hydrogen	1.280	1.285	-0.005	35548645	0.37097	0.708
1 Helium	1.147	1.143	0.004	41606989	0.63125	1.20
3 Carbon Dioxide	3.484	3.375	0.109	109854834	0.21610	0.413
9 Oxygen	8.307	8.336	-0.029	2070114500	6.63751	12.7
10 Nitrogen	8.505	8.549	-0.044	31073063230	91.3570	~~174~~ 85.1
12 Carbon Monoxide	Compound Not Detected.					

by dyl.
gm
6/2/10

Air Toxics Ltd.

Modified ASTM D-1945

Data file : /chem/gc9.i/01Jun2010.b/9060121b.d
Lab Smp Id: 1005453B-01AA
Inj Date : 01-JUN-2010 18:38
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,3748;1005453B-01AA;
Misc Info : 9.0"Hg->5psi
Comment : GC/TCD
Method : /chem/gc9.i/01Jun2010.b/910n0430.m/910C0417.m
Meth Date : 01-Jun-2010 17:45 lyohanne Quant Type: ESTD
Cal Date : 01-JUN-2010 17:29 Cal File: 9060118b.d
Als bottle: 1
Dil Factor: 1.91000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
2 Hydrogen	1.280	1.285	-0.005	35745551	0.37302	0.712
1 Helium	1.147	1.143	0.004	41681951	0.63239	1.21
3 Carbon Dioxide	3.485	3.375	0.110	111249239	0.21884	0.418
9 Oxygen	8.307	8.336	-0.029	2068838710	6.63342	12.7
10 Nitrogen	8.506	8.549	-0.043	31074951692	91.3625	~~174~~
12 Carbon Monoxide	Compound Not Detected.					

85%. by diff.

gm
6/2/10

Data File: /chem/gc9.i/01Jun2010.b/9060122b.d
Report Date: 02-Jun-2010 13:36

Air Toxics Ltd.

Modified ASTM D-1945

Data file : /chem/gc9.i/01Jun2010.b/9060122b.d
Lab Smp Id: 1005453B-02A
Inj Date : 01-JUN-2010 19:00
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,13667;1005453B-02A;
Misc Info : 9.0"Hg->5psi
Comment : GC/TCD
Method : /chem/gc9.i/01Jun2010.b/910n0430.m/910C0417.m
Meth Date : 01-Jun-2010 17:45 lyohanne Quant Type: ESTD
Cal Date : 01-JUN-2010 17:29 Cal File: 9060118b.d
Als bottle: 1
Dil Factor: 1.91000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
2 Hydrogen	1.280	1.285	-0.005	35977472	0.37544	0.717
1 Helium	1.147	1.143	0.004	31328841	0.47532	0.908
3 Carbon Dioxide	3.489	3.375	0.114	26418866	0.05197	0.0993
9 Oxygen	8.305	8.336	-0.031	2375600181	7.61701	14.5
10 Nitrogen	8.506	8.549	-0.043	30896445023	90.8377	~~174~~ 84 %
12 Carbon Monoxide	Compound Not Detected.					

✓ by ajl
gm
6/2/10

Air Toxics Ltd.

Modified ASTM D-1945

Data file : /chem/gc9.i/02Jun2010.b/9060209b.d
Lab Smp Id: 1005453B-03A
Inj Date : 02-JUN-2010 14:02
Operator : ly Inst ID: gc9.i
Smp Info : 1.0mL,33382;1005453B-03A;
Misc Info : 8.4"Hg.5.0psi, Exponent
Comment : GC/TCD
Method : /chem/gc9.i/02Jun2010.b/910n0430.m/910C0417.m
Meth Date : 02-Jun-2010 22:28 lyohanne Quant Type: ESTD
Cal Date : 02-JUN-2010 10:32 Cal File: 9060201b.d
Als bottle: 1
Dil Factor: 1.86000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
2 Hydrogen	1.279	1.285	-0.006	6100005	0.05845	0.109
1 Helium	1.147	1.146	0.001	26350381	0.39526	0.735
3 Carbon Dioxide	3.478	3.348	0.130	19165920	0.03805	0.0708
9 Oxygen	8.297	8.330	-0.033	3284279327	10.4726	19.5
10 Nitrogen	8.504	8.540	-0.036	30143106003	88.3070	~~164~~
12 Carbon Monoxide	Compound Not Detected.					

79-1. by ajl.

jm 6/3/10

Air Toxics Ltd.

Modified ASTM D-1945

Data file : /chem/gc9.i/02Jun2010.b/9060210b.d
Lab Smp Id: 1005453B-03AA
Inj Date : 02-JUN-2010 14:24
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,33382;1005453B-03AA;
Misc Info : 8.4"Hg.5.0psi, Exponent
Comment : GC/TCD
Method : /chem/gc9.i/02Jun2010.b/910n0430.m/910C0417.m
Meth Date : 02-Jun-2010 22:28 lyohanne Quant Type: ESTD
Cal Date : 02-JUN-2010 10:32 Cal File: 9060201b.d
Als bottle: 1
Dil Factor: 1.86000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
2 Hydrogen	1.279	1.285	-0.006	6226253	0.05966	0.111
1 Helium	1.147	1.146	0.001	26352353	0.39529	0.735
3 Carbon Dioxide	3.478	3.348	0.130	19878182	0.03947	0.0734
9 Oxygen	8.297	8.330	-0.033	3281318956	10.4632	19.5
10 Nitrogen	8.507	8.540	-0.033	30139241574	88.2957	~~164~~ 79.1
12 Carbon Monoxide	Compound Not Detected.					

by adj

gm
6/3/10

Air Toxics Ltd.

Modified ASTM D-1945

Data file : /chem/gc9.i/01Jun2010.b/9060125b.d
Lab Smp Id: 1005453B-05A
Inj Date : 01-JUN-2010 20:54
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,34725;1005453B-05A;
Misc Info : 8.6"Hg->5psi
Comment : GC/TCD
Method : /chem/gc9.i/01Jun2010.b/910n0430.m/910C0417.m
Meth Date : 01-Jun-2010 17:45 lyohanne Quant Type: ESTD
Cal Date : 01-JUN-2010 17:29 Cal File: 9060118b.d
Als bottle: 1
Dil Factor: 1.88000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
2 Hydrogen	1.277	1.285	-0.008	3127333	0.03264	0.0614
1 Helium	Compound Not Detected.					
3 Carbon Dioxide	3.498	3.375	0.123	36986222	0.07276	0.137
9 Oxygen	8.300	8.336	-0.036	3096161348	9.92738	18.7
10 Nitrogen	8.509	8.549	-0.040	30386852583	89.3395	~~168~~ 81.1
12 Carbon Monoxide	Compound Not Detected.					

81.1. by diff

gm
6/2/10

Air Toxics Ltd.

Modified ASTM D-1945

Data file : /chem/gc9.i/01Jun2010.b/9060126b.d
Lab Smp Id: 1005453B-14A
Inj Date : 01-JUN-2010 21:25
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,34371;1005453B-14A;
Misc Info : 9.8"Hg->5psi
Comment : GC/TCD
Method : /chem/gc9.i/01Jun2010.b/910n0430.m/910C0417.m
Meth Date : 01-Jun-2010 17:45 lyohanne Quant Type: ESTD
Cal Date : 01-JUN-2010 17:29 Cal File: 9060118b.d
Als bottle: 1
Dil Factor: 1.99000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
2 Hydrogen	Compound Not Detected.					
1 Helium	1.143	1.143	0.000	4076694	0.06185	0.123
3 Carbon Dioxide	3.491	3.375	0.116	119107981	0.23430	0.466
9 Oxygen	8.297	8.336	-0.039	3323734581	10.6571	21.2
10 Nitrogen	8.507	8.549	-0.042	30085419012	88.4532	~~176~~ 78.1. by dgl
12 Carbon Monoxide	Compound Not Detected.					

✓

gm
6/2/10

Air Toxics Ltd.

Modified ASTM D-1945

Data file : /chem/gc9.i/01Jun2010.b/9060127b.d
Lab Smp Id: 1005453B-15A
Inj Date : 01-JUN-2010 21:47
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,4188;1005453B-15A;
Misc Info : 10"Hg->5psi
Comment : GC/TCD
Method : /chem/gc9.i/01Jun2010.b/910n0430.m/910C0417.m
Meth Date : 01-Jun-2010 17:45 lyohanne Quant Type: ESTD
Cal Date : 01-JUN-2010 17:29 Cal File: 9060118b.d
Als bottle: 1
Dil Factor: 2.01000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
2 Hydrogen	Compound Not Detected.					
1 Helium	1.144	1.143	0.001	11397918	0.17293	0.348
3 Carbon Dioxide	3.496	3.375	0.121	69645269	0.13700	0.275
9 Oxygen	8.298	8.336	-0.038	3270579494	10.4866	21.1
10 Nitrogen	8.508	8.549	-0.041	30132075114	88.5904	~~178~~ 78.1. by ayl
12 Carbon Monoxide	Compound Not Detected.					

gm 6/2/10

Air Toxics Ltd.

Modified ASTM D-1945

Data file : /chem/gc9.i/01Jun2010.b/9060128b.d
Lab Smp Id: 1005453B-16A
Inj Date : 01-JUN-2010 22:10
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,35170;1005453B-16A;
Misc Info : 8.8"Hg->5psi
Comment : GC/TCD
Method : /chem/gc9.i/01Jun2010.b/910n0430.m/910C0417.m
Meth Date : 01-Jun-2010 17:45 lyohanne Quant Type: ESTD
Cal Date : 01-JUN-2010 17:29 Cal File: 9060118b.d
Als bottle: 1
Dil Factor: 1.90000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					CONCENTRATIONS	
					ON-COLUMN	FINAL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
2 Hydrogen	Compound Not Detected.					
1 Helium	1.143	1.143	0.000	7082325	0.10745	0.204
3 Carbon Dioxide	3.497	3.375	0.122	70656038	0.13899	0.264
9 Oxygen	8.298	8.336	-0.038	3448998131	11.0587	21.0
10 Nitrogen	8.511	8.549	-0.038	29951975026	88.0609	~~167~~ 784. by dyl.
12 Carbon Monoxide	Compound Not Detected.					

DILUTION FACTORS

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Vacuum}} = \frac{14.7 \text{ psi} + \text{Final Pressure (psi)}}{14.7 \text{ psi} - [(\text{Initial Pressure ("Hg)}) (14.7 \text{ psi} / 30 \text{ "Hg})]}$$

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Pressure}} = \frac{14.7 \text{ psi} + \text{Final Pressure (psi)}}{14.7 \text{ psi} + \text{Initial Pressure (psi)}}$$

Initial Vacuum ("Hg)	**5 psi** Final Press. Dil. Factor	**10 psi** Final Press. Dil. Factor	**15 psi** Final Press. Dil. Factor
0.0	1.34	1.68	2.02
0.5	1.36	1.71	2.05
1.0	1.39	1.74	2.09
1.5	1.41	1.77	2.13
2.0	1.44	1.80	2.16
2.5	1.46	1.83	2.20
3.0	1.49	1.87	2.24
3.5	1.52	1.90	2.29
4.0	1.55	1.94	2.33
4.5	1.58	1.98	2.38
5.0	1.61	2.02	2.42
5.5	1.64	2.06	2.47
6.0	1.68	2.10	2.53
6.5	1.71	2.15	2.58
7.0	1.75	2.19	2.64
7.5	1.79	2.24	2.69
8.0	1.83	2.29	2.76
8.5	1.87	2.34	2.82
9.0	1.91	2.40	2.89
9.5	1.96	2.46	2.96
10.0	2.01	2.52	3.03
10.5	2.06	2.59	3.11
11.0	2.12	2.65	3.19
11.5	2.17	2.72	3.28
12.0	2.23	2.80	3.37
12.5	2.30	2.88	3.46
13.0	2.36	2.97	3.57
13.5	2.44	3.06	3.67
14.0	2.51	3.15	3.79
14.5	2.59	3.25	3.91
15.0	2.68	3.36	4.04
15.5	2.77	3.48	4.18
16.0	2.87	3.60	4.33
16.5	2.98	3.73	4.49
17.0	3.09	3.88	4.66
17.5	3.22	4.03	4.85
18.0	3.35	4.20	5.05
18.5	3.50	4.38	5.27
19.0	3.65	4.58	5.51
19.5	3.83	4.80	5.77
20.0	4.02	5.04	6.06
20.5	4.23	5.31	6.38

Initial Vacuum ("Hg)	**5 psi** Final Press. Dil. Factor	**10 psi** Final Press. Dil. Factor	**15 psi** Final Press. Dil. Factor
21.0	4.47	5.60	6.73
21.5	4.73	5.93	7.13
22.0	5.03	6.30	7.58
22.5	5.36	6.72	8.08
23.0	5.74	7.20	8.66
23.5	6.19	7.76	9.32
24.0	6.70	8.40	10.10
24.5	7.31	9.17	11.02
25.0	8.04	10.08	12.12
25.5	8.93	11.20	13.47
26.0	10.05	12.60	15.15
26.5	11.49	14.40	17.32
27.0	13.40	16.80	20.20
27.5	16.08	20.16	24.24
28.0	20.10	25.20	30.31
28.5	26.80	33.61	40.41
29.0	40.20	50.41	60.61

Initial Pressure (psi)	**5 psi** Final Press. Dil. Factor	**10 psi** Final Press. Dil. Factor	**15 psi** Final Press. Dil. Factor
0.0	1.34	1.68	2.02
0.2	1.32	1.66	1.99
0.4	1.30	1.64	1.97
0.6	1.29	1.61	1.94
0.8	1.27	1.59	1.92
1.0	1.25	1.57	1.89
1.2	1.24	1.55	1.87
1.4	1.22	1.53	1.84
1.6	1.21	1.52	1.82
1.8	1.19	1.50	1.80
2.0	1.18	1.48	1.78
2.2	1.17	1.46	1.76
2.4	1.15	1.44	1.74
2.6	1.14	1.43	1.72
2.8	1.13	1.41	1.70
3.0	1.11	1.40	1.68
3.2	1.10	1.38	1.66
3.4	1.09	1.36	1.64
3.6	1.08	1.35	1.62
3.8	1.06	1.34	1.61
4.0	1.05	1.32	1.59

DILUTION FACTORS

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Pressure}} = \frac{\text{14.7 psi + Final Pressure (psi)}}{\text{14.7 psi + Initial Pressure (psi)}}$$

Initial Pressure (psi)	**5 psi** Final Press. Dil. Factor	**10 psi** Final Press. Dil. Factor	**15 psi** Final Press. Dil. Factor
0.0	1.34	1.68	2.02
0.2	1.32	1.66	1.99
0.4	1.30	1.64	1.97
0.6	1.29	1.61	1.94
0.8	1.27	1.59	1.92
1.0	1.25	1.57	1.89
1.2	1.24	1.55	1.87
1.4	1.22	1.53	1.84
1.6	1.21	1.52	1.82
1.8	1.19	1.50	1.80
2.0	1.18	1.48	1.78
2.2	1.17	1.46	1.76
2.4	1.15	1.44	1.74
2.6	1.14	1.43	1.72
2.8	1.13	1.41	1.70
3.0	1.11	1.40	1.68
3.2	1.10	1.38	1.66
3.4	1.09	1.36	1.64
3.6	1.08	1.35	1.62
3.8	1.06	1.34	1.61
4.0	1.05	1.32	1.59
4.2	1.04	1.31	1.57
4.4	1.03	1.29	1.55
4.6	1.02	1.28	1.54
4.8	1.01	1.27	1.52
5.0	1.00	1.25	1.51
5.2	NA	1.24	1.49
5.4	NA	1.23	1.48
5.6	NA	1.22	1.46
5.8	NA	1.20	1.45
6.0	NA	1.19	1.43
6.2	NA	1.18	1.42
6.4	NA	1.17	1.41
6.6	NA	1.16	1.39
6.8	NA	1.15	1.38
7.0	NA	1.14	1.37
7.2	NA	1.13	1.36
7.4	NA	1.12	1.34
7.6	NA	1.11	1.33
7.8	NA	1.10	1.32
8.0	NA	1.09	1.31
8.2	NA	1.08	1.30
8.4	NA	1.07	1.29
8.6	NA	1.06	1.27
8.8	NA	1.05	1.26
9.0	NA	1.04	1.25
9.2	NA	1.03	1.24
9.4	NA	1.02	1.23
9.6	NA	1.02	1.22
9.8	NA	1.01	1.21
10.0	NA	1.00	1.20
10.2	NA	NA	1.19
10.4	NA	NA	1.18
10.6	NA	NA	1.17
10.8	NA	NA	1.16
11.0	NA	NA	1.16
11.2	NA	NA	1.15
11.4	NA	NA	1.14
11.6	NA	NA	1.13
11.8	NA	NA	1.12
12.0	NA	NA	1.11
12.2	NA	NA	1.10
12.4	NA	NA	1.10
12.6	NA	NA	1.09
12.8	NA	NA	1.08
13.0	NA	NA	1.07
13.2	NA	NA	1.06
13.4	NA	NA	1.06
13.6	NA	NA	1.05
13.8	NA	NA	1.04
14.0	NA	NA	1.03
14.2	NA	NA	1.03
14.4	NA	NA	1.02
14.6	NA	NA	1.01
14.8	NA	NA	1.01

Compound List

Modified ASTM D-1945 + He

CAS Number	Compound	Detection Limit %	Type
7782-44-7	Oxygen	0.10	
7727-37-9	Nitrogen	0.10	
630-08-0	Carbon Monoxide	0.010	
74-82-8	Methane	0.00010	
124-38-9	Carbon Dioxide	0.010	
74-84-0	Ethane	0.0010	
74-85-1	Ethene	0.0010	
74-86-2	Acetylene	0.0010	
74-98-6	Propane	0.0010	
75-28-5	Isobutane	0.0010	
106-97-8	Butane	0.0010	
463-82-1	Neopentane	0.0010	
78-78-4	Isopentane	0.0010	
109-66-0	Pentane	0.0010	
C6+	C6+	0.010	
1333-74-0	Hydrogen	0.010	
7440-59-7	Helium	0.050	

@ Air Toxics Ltd	Title: Data Review Checklist			Release Date: 03/01/10
	Form #: F1.2	Revision #: 2	Revision Date:03/01/10	Page #: 1 of 2

DATA REVIEW CHECKLIST

Work Order #: 1005453B

A_1	A_2	R	T	M	Q	
☑	☐	☑	☐	☑	☐	Analysis/Reporting vs. Project Profile/SOP requirements checked (i.e. 100% Dups, J-Flag to MDL, etc)
		☑	☐	☑	☐	The final report has the correct reporting list, special units, and header info.
NA	☐			NA		Non-Standard sublist printed/verified, LOQ and LOD verified
	☐	☑	☐	☑	☐	Lab Narrative is correct (proper method & description/Receiving & Analytical notes correct)
		NA	☐	☑	☐	Sample Discrepancy Report (SDR) is completed
NA	☐	☐	☐	☑	☐	Corrective Action issued - #
☐	☐	☐	☐	☐	☐	Unusual circumstances have been documented in the notes section below

LUMEN *validation report present and initialed* ***CIRCLE (YES / (NO)***

☑	☐	☑	☐	☐	☐	Lab Blank, CCV, LCS and DUP met QC criteria
☑	☐	☐	☐	☑	☐	Hold time is met for all samples
		NA	☐	☑	☐	Appropriate data qualifier flags are applied
		NA	☐	☐	☐	Manual integrations for samples and QC are properly documented
☑	☐	☑	☐		☐	Samples analyzed within the project or method specific clock
		☐	☐			Retention times have been verified
☑	☐	☑	☐		☐	Appropriate ICAL(s) included
		☑	☐	☑	☐	At least one result per sample is verified against the target quant sheets/raw data
☑	☐	☑	☐		☐	Dilution factor correctly calculated (sample load volume, syringe and bag dilutions, can pressurization(s))
☑	☐	☑	☐			Correct amount of sample analyzed (i.e. sample not over-diluted)
		NA	☐			Spectra verified - documentation of spectral defense included (Section 5A of eCVP pkg)
		☐	☐			TICs resemble reference spectra
		NA	☐			TICs between duplicate samples are consistent
☑	☐	☑	☐	☑	☐	Checked samples for trends (i.e. Influent vs. Effluent, Field Dups, Field/Trip Blank, etc.)
☑	☐	NA	☐			Data for multiple analyses of sample(s) has been evaluated for comparability of results
		☐		☐		Special units for all samples in the final report are correctly calculated
		☑	☐	☐		Manually entered results checked (i.e. TPH/NMOC)
☑	☐	☑				Chain of Custody verified for any special comments (i.e. different compounds/RLs, action levels)
		☑				Chain of Custody scanned correctly
				☐		Verify sample id's vs. chain of custody
☑		☐				Date MDL(s) performed per instrument(s) 10/14/09, 1/29/10, 1/4/10
☑	☐	☑				Samples pressurized w/ appropriate gas (N_2 or He) ☐ Other (i.e. Tedlar bag, cartridge, sorbent)
☑	☐	☑				Final pressure consistent with canister size (6L vs. 1L)
☑	☐	☑				Verify receipt pressures
☐	☐	☑				Verify canister ID #'s
		☑		☐		Final invoice amount correct (adjusted for TAT, Penalties, Re-issue Charges etc.)
		NA	☐	☑	☐	Client LUMEN report reviewed for accuracy and completeness
				☑		Final PDF report reviewed for correctness

Notes: *(to include: noting samples with QA/QC problems, Blanks with positive hits, narratives, etc.)*

A/R: Prep - 01A, 03A

N_2 by difference

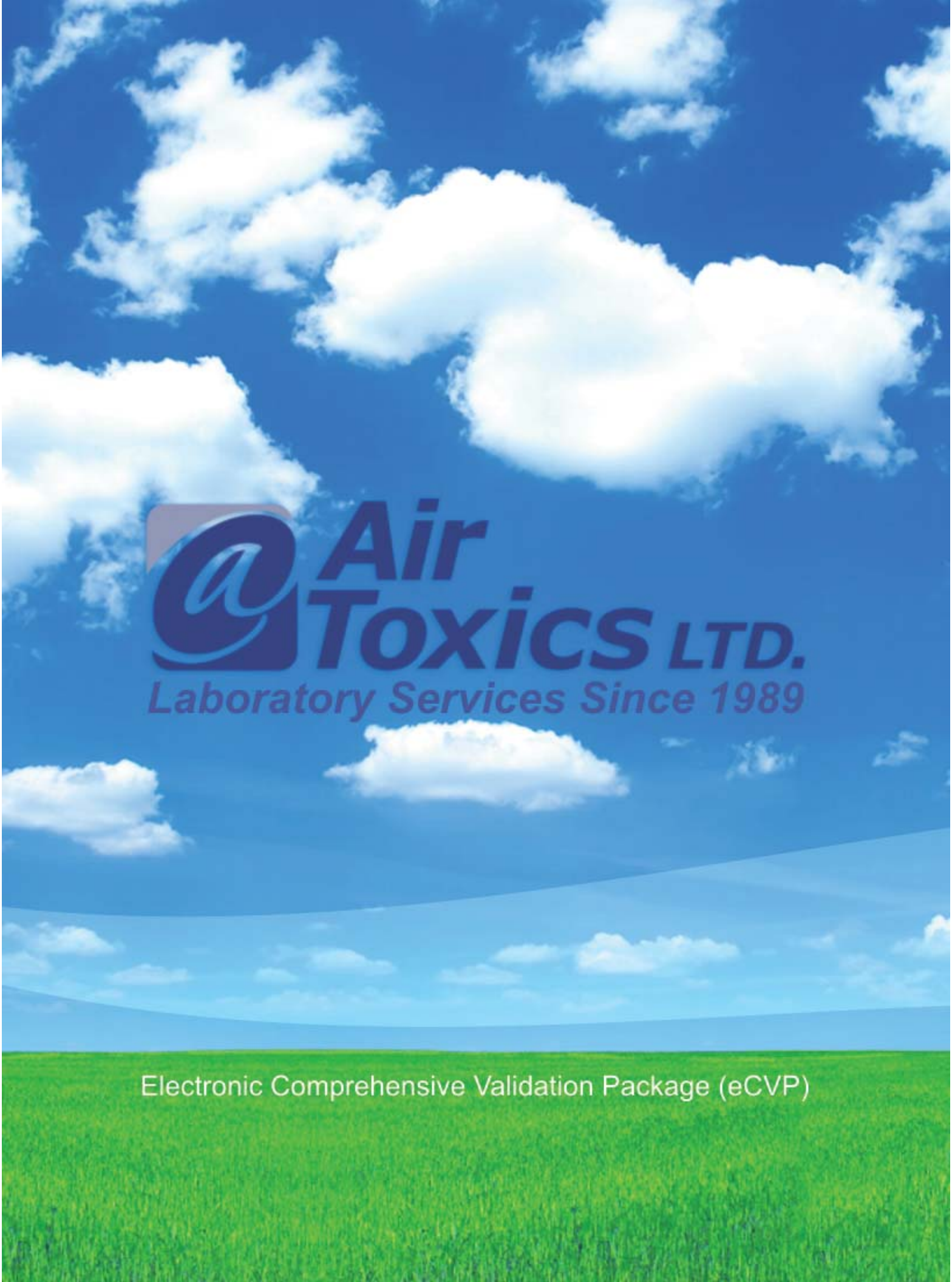
03A - ran on 6/2/10

M/Q:

A_1/A_2 (Analytical Review/Date)	R/T (Reporting Review/Date)	M (Management Review/Date)	Q (QA Review/Date)
A_1: QA 6/1/10	R: gm 6/2/10, gm 6/3/10	⟸ 6/3/10	
A_2:	T:		

Note (1): Please check all the appropriate boxes. Indicate "NA" for any statement that does not apply.
Note (2): Management reviewer and reporting reviewer must be separate individuals.

Not Applicable


Air
Toxics LTD.
Laboratory Services Since 1989
Electronic Comprehensive Validation Package (eCVP)

AN ENVIRONMENTAL ANALYTICAL LABORATORY

COMPREHENSIVE VALIDATION PACKAGE

Siloxanes

INVENTORY SHEET

Work Order #: 1005453C

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b. Target Compound Raw Data		
-Internal Standard Area and Retention Time Summary		
-Surrogate Recovery Summary (If Applicable)		
-Chromatogram(s) and Ion Profiles (If Applicable)		
3. QC Results and Raw Data		
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c. Internal Standard Summary Form (If Applicable)	205	208
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h. Continuing Calibration Verification Data (Summary Sheet	250	265
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5. Other Records (describe or list)		
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Comments:

Completed by:

Kara McKiernan	Kara McKiernan / Document Control	6/7/10
(Signature)	(Print Name & Title)	(Date)

Air Toxics LTD.
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WORK ORDER #: 1005453C

Work Order Summary

CLIENT:	Ms. Melissa Kleven Exponent 15375 SE 30th Place Suite 250 Bellevue, WA 98007	**BILL TO:**	Ms. Melissa Kleven Exponent 15375 SE 30th Place Suite 250 Bellevue, WA 98007
PHONE:	425-519-8774	**P.O. #**	
FAX:	425-643-9827	**PROJECT #**	0907194.000.0601 Heglar - Kronquist
DATE RECEIVED:	05/19/2010	**CONTACT:**	Karen Lopez
DATE COMPLETED:	06/02/2010		

FRACTION #	NAME	TEST
17AB	GV-1	Siloxanes
17ABB	GV-1 Lab Duplicate	Siloxanes
18AB	GV-6	Siloxanes
19AB	GV-7	Siloxanes
20AB	GV-11	Siloxanes
21AB	AOS-1	Siloxanes
22AB	GV-9	Siloxanes
23AB	GV-10	Siloxanes
24AB	GV-12	Siloxanes
25AB	ALF-1	Siloxanes
26AB	ALF-2	Siloxanes
27AB	ALF-3	Siloxanes
28AB	ALF-4	Siloxanes
29AB	ALF-5	Siloxanes
30AB	AOS-2	Siloxanes
31AB	AOS-3	Siloxanes
32AB	GV-13	Siloxanes

Continued on next page

Air Toxics LTD.
Laboratory Services Since 1989

WORK ORDER #: 1005453C

Work Order Summary

CLIENT:	Ms. Melissa Kleven Exponent 15375 SE 30th Place Suite 250 Bellevue, WA 98007	**BILL TO:**	Ms. Melissa Kleven Exponent 15375 SE 30th Place Suite 250 Bellevue, WA 98007
PHONE:	425-519-8774	**P.O. #**	
FAX:	425-643-9827	**PROJECT #**	0907194.000.0601 Heglar - Kronquist
DATE RECEIVED:	05/19/2010	**CONTACT:**	Karen Lopez
DATE COMPLETED:	06/02/2010		

FRACTION #	NAME	TEST
33A	Lab Blank	Siloxanes
33B	Lab Blank	Siloxanes
33C	Lab Blank	Siloxanes
33D	Lab Blank	Siloxanes
34A	LCS	Siloxanes
34B	LCS	Siloxanes
34C	LCS	Siloxanes
34D	LCS	Siloxanes

CERTIFIED BY: Linda D. Fruman

Laboratory Director

DATE: 06/03/10

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

LABORATORY NARRATIVE
Siloxanes
Exponent
Workorder# 1005453C

Thirty-two Vial samples were received on May 19, 2010. The laboratory performed analysis for siloxanes by GC/MS. A sample volume of 1.0 uL was injected directly onto the GC column. Initial results are in ug/mL. The units are converted to total micrograms (ug) by multiplying the result (ug/mL) by the total volume (mL) contained in the impinger. See the data sheets for the reporting limits for each compound.

Receiving Notes

Front and back impinger samples GV9, GV10 and GV12 were received in non-uniquely labeled vials. Because the reported results are an additive combination of the two vials the discrepancy was noted in the Sample Receipt Confirmation email/fax and the analysis proceeded. Each vial was given a unique laboratory identification number.

Analytical Notes

Impinger volumes were measured at the laboratory using a graduated cylinder and documented in the analytical logbook.

A front and back impinger was received for each sample. Each impinger was analyzed separately. The results for each analyte were then additively combined and reported as a single concentration. The reported surrogate recovery is derived from the front impinger analysis only.

Sampling volume was supplied by the client. A sample volume of 22 L was assumed for all QC samples.

Definition of Data Qualifying Flags

Six qualifiers may have been used on the data analysis sheets and indicate as follows:
B - Compound present in laboratory blank greater than reporting limit.
J - Estimated Value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
M - Reported value may be biased due to apparent matrix interferences.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

Table 1

Client Sample ID	Lab Sample ID	Date Collected	Date Received	Date Extracted	Sample Holding Time (Days)	Sample Extract Date Analyzed	Sample Extract Holding Time (Days)	Sample Condition
GV-1	1005453C-17AB	5/16/2010	5/19/2010	NA	12	5/28/2010	NA	Good
GV-1 Lab Duplicate	1005453C-17AB	5/16/2010	5/19/2010	NA	12	5/28/2010	NA	Good
GV-6	1005453C-18AB	5/16/2010	5/19/2010	NA	12	5/28/2010	NA	Good
GV-7	1005453C-19AB	5/16/2010	5/19/2010	NA	12	5/28/2010	NA	Good
GV-11	1005453C-20AB	5/16/2010	5/19/2010	NA	12	5/28/2010	NA	Good
AOS-1	1005453C-21AB	5/17/2010	5/19/2010	NA	11	5/28/2010	NA	Good
GV-9	1005453C-22AB	5/15/2010	5/19/2010	NA	13	5/28/2010	NA	Good
GV-10	1005453C-23AB	5/15/2010	5/19/2010	NA	13	5/28/2010	NA	Good
GV-12	1005453C-24AB	5/15/2010	5/19/2010	NA	13	5/28/2010	NA	Good
ALF-1	1005453C-25AB	5/17/2010	5/19/2010	NA	12	5/29/2010	NA	Good
ALF-2	1005453C-26AB	5/17/2010	5/19/2010	NA	12	5/29/2010	NA	Good
ALF-3	1005453C-27AB	5/17/2010	5/19/2010	NA	12	5/29/2010	NA	Good
ALF-4	1005453C-28AB	5/17/2010	5/19/2010	NA	12	5/29/2010	NA	Good
ALF-5	1005453C-29AB	5/17/2010	5/19/2010	NA	3	5/20/2010	NA	Good
AOS-2	1005453C-30AB	5/17/2010	5/19/2010	NA	3	5/20/2010	NA	Good
AOS-3	1005453C-31AB	5/17/2010	5/19/2010	NA	9	5/26/2010	NA	Good
GV-13	1005453C-32AB	5/16/2010	5/19/2010	NA	10	5/26/2010	NA	Good
Lab Blank	1005453C-33A	NA	NA	NA	NA	5/26/2010	NA	Good
Lab Blank	1005453C-33B	NA	NA	NA	NA	5/28/2010	NA	Good
Lab Blank	1005453C-33C	NA	NA	NA	NA	5/28/2010	NA	Good
Lab Blank	1005453C-33D	NA	NA	NA	NA	5/20/2010	NA	Good
LCS	1005453C-34A	NA	NA	NA	NA	5/26/2010	NA	Good
LCS	1005453C-34B	NA	NA	NA	NA	5/28/2010	NA	Good
LCS	1005453C-34C	NA	NA	NA	NA	5/28/2010	NA	Good
LCS	1005453C-34D	NA	NA	NA	NA	5/20/2010	NA	Good

Sample Results and Raw Data

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Summary of Detected Compounds
SILOXANES - GC/MS

Client Sample ID: GV-1

Lab ID#: 1005453C-17AB

No Detections Were Found.

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: GV-1

Lab ID#: 1005453C-17AB

SILOXANES - GC/MS

File Name:	**k052811**	**Date of Collection: 5/16/10 3:38:00 PM**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/28/10 01:13 PM**	

Compound	Rpt. Limit (ug)	Amount (ug)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Octamethylcyclotetrasiloxane (D4)	29	Not Detected	1400	Not Detected
Decamethylcylopentasiloxane (D5)	29	Not Detected	1400	Not Detected
Dodecamethylcyclohexasiloxane (D6)	58	Not Detected	2800	Not Detected
Hexamethyldisiloxane	29	Not Detected	1400	Not Detected
Octamethyltrisiloxane	29	Not Detected	1400	Not Detected

Air Sample Volume(L): 20.7
Impinger Total Volume(mL): 28.9

Container Type: Vial

Surrogates	%Recovery	Method Limits
Hexamethyl disiloxane -d18	104	70-130

Air Toxics Ltd.

Siloxane Analysis by GC/MS

Data file : /chem/msdk.i/k28may10.b/k052811.d
Lab Smp Id: 1005453C-17AB
Inj Date : 28-MAY-2010 13:13
Operator : LZ Inst ID: msdk.i
Smp Info : ;1005453C-17A;
Misc Info :
Comment : HP5MS 30m x 0.25 mm 0.25u
Method : /chem/msdk.i/k28may10.b/k10k0323.m
Meth Date : 28-May-2010 12:24 lzhang Quant Type: ISTD
Cal Date : 23-MAR-2010 18:31 Cal File: k032312.d
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: silo.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * v * CpndVariable
v 13.70000 final volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (uG/mL)	FINAL (ug)
* 3	Benzene-d6	84	2.862	2.872	(1.000)	836494	40.0000	
$ 4	Hexamethyldisiloxane-d18	162	2.924	2.924	(1.022)	1446194	41.5464	41.5
5	hexamethyldisiloxane(mm)	147	Compound Not Detected.					
* 6	Toluene-d8	98	5.139	5.148	(1.000)	766155	40.0000	
7	octamethyltrisiloxane(mdm)	221	Compound Not Detected.					
* 8	4-Bromofluorobenzene	174	8.377	8.377	(1.000)	248409	40.0000	
9	octa-m-cyclotetrasiloxane(d4)	281	Compound Not Detected.					
10	deca-m-cyclopentasiloxane(d5)	267	Compound Not Detected.					
165	Dodeca-mcyclohexasiloxane(d6)	341	Compound Not Detected.					

Air Toxics Ltd.

Siloxane Analysis by GC/MS

Data file : /chem/msdk.i/k28may10.b/k052812.d
Lab Smp Id: 1005453C-17B
Inj Date : 28-MAY-2010 13:36
Operator : LZ Inst ID: msdk.i
Smp Info : ;1005453C-17B;
Misc Info :
Comment : HP5MS 30m x 0.25 mm 0.25u
Method : /chem/msdk.i/k28may10.b/k10k0323.m
Meth Date : 28-May-2010 12:24 lzhang Quant Type: ISTD
Cal Date : 23-MAR-2010 18:31 Cal File: k032312.d
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: silo.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * v * CpndVariable
v 15.20000 final volume

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (uG/mL)	FINAL (ug)
* 3 Benzene-d6	84	2.871	2.872	(1.000)	795811	40.0000	
$ 4 Hexamethyldisiloxane-d18	162	2.923	2.924	(1.018)	1325403	40.0229	40.0
5 hexamethyldisiloxane(mm)	147	Compound Not Detected.					
* 6 Toluene-d8	98	5.138	5.148	(1.000)	737945	40.0000	
7 octamethyltrisiloxane(mdm)	221	Compound Not Detected.					
* 8 4-Bromofluorobenzene	174	8.366	8.377	(1.000)	253913	40.0000	
9 octa-m-cyclotetrasiloxane(d4)	281	Compound Not Detected.					
10 deca-m-cyclopentasiloxane(d5)	267	Compound Not Detected.					
165 Dodeca-mcyclohexasiloxane(d6)	341	Compound Not Detected.					

Report Date: 02-Jun-2010 20:19

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdk.i
Lab File ID: k052811.d
Lab Smp Id: 1005453C-17AB
Analysis Type: SV
Quant Type: ISTD
Operator: LZ
Method File: /chem/msdk.i/k28may10.b/k10k0323.m
Misc Info:

Calibration Date: 28-MAY-2010
Calibration Time: 11:58
Level: MED
Sample Type: WATER

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	819981	409990	1639962	836494	2.01
6 Toluene-d8	797846	398923	1595692	766155	-3.97
8 4-Bromofluorobenz	279522	139761	559044	248409	-11.13

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	2.87	2.37	3.37	2.86	-0.34
6 Toluene-d8	5.15	4.65	5.65	5.14	-0.19
8 4-Bromofluorobenz	8.38	7.88	8.88	8.38	0.01

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Report Date: 02-Jun-2010 20:19

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdk.i
Lab File ID: k052812.d
Lab Smp Id: 1005453C-17B
Analysis Type: SV
Quant Type: ISTD
Operator: LZ
Method File: /chem/msdk.i/k28may10.b/k10k0323.m
Misc Info:

Calibration Date: 28-MAY-2010
Calibration Time: 11:58
Level: MED
Sample Type: WATER

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	819981	409990	1639962	795811	-2.95
6 Toluene-d8	797846	398923	1595692	737945	-7.51
8 4-Bromofluorobenz	279522	139761	559044	253913	-9.16

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	2.87	2.37	3.37	2.87	-0.02
6 Toluene-d8	5.15	4.65	5.65	5.14	-0.21
8 4-Bromofluorobenz	8.38	7.88	8.88	8.37	-0.13

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Report Date: 02-Jun-2010 20:19

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: k28may10
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: 1005453C-17AB
Level: MED Operator: LZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: LCS50.spk Quant Type: ISTD
Sublist File: silo.sub
Method File: /chem/msdk.i/k28may10.b/k10k0323.m
Misc Info:

SURROGATE COMPOUND	AMOUNT ADDED uG/mL	AMOUNT RECOVERED uG/mL	% RECOVERED	LIMITS
$ 4 Hexamethyldisiloxa	40.0	41.5	103.87	70-130

Report Date: 02-Jun-2010 20:19

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: k28may10
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: 1005453C-17B
Level: MED Operator: LZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: LCS50.spk Quant Type: ISTD
Sublist File: silo.sub
Method File: /chem/msdk.i/k28may10.b/k10k0323.m
Misc Info:

SURROGATE COMPOUND	AMOUNT ADDED uG/mL	AMOUNT RECOVERED uG/mL	% RECOVERED	LIMITS
$ 4 Hexamethyldisiloxa	40.0	40.0	100.06	70-130

Data File: /chem/msdk.i/k28may10.b/k052811.d

Page 1

Date : 28-MAY-2010 13:13

Client ID:

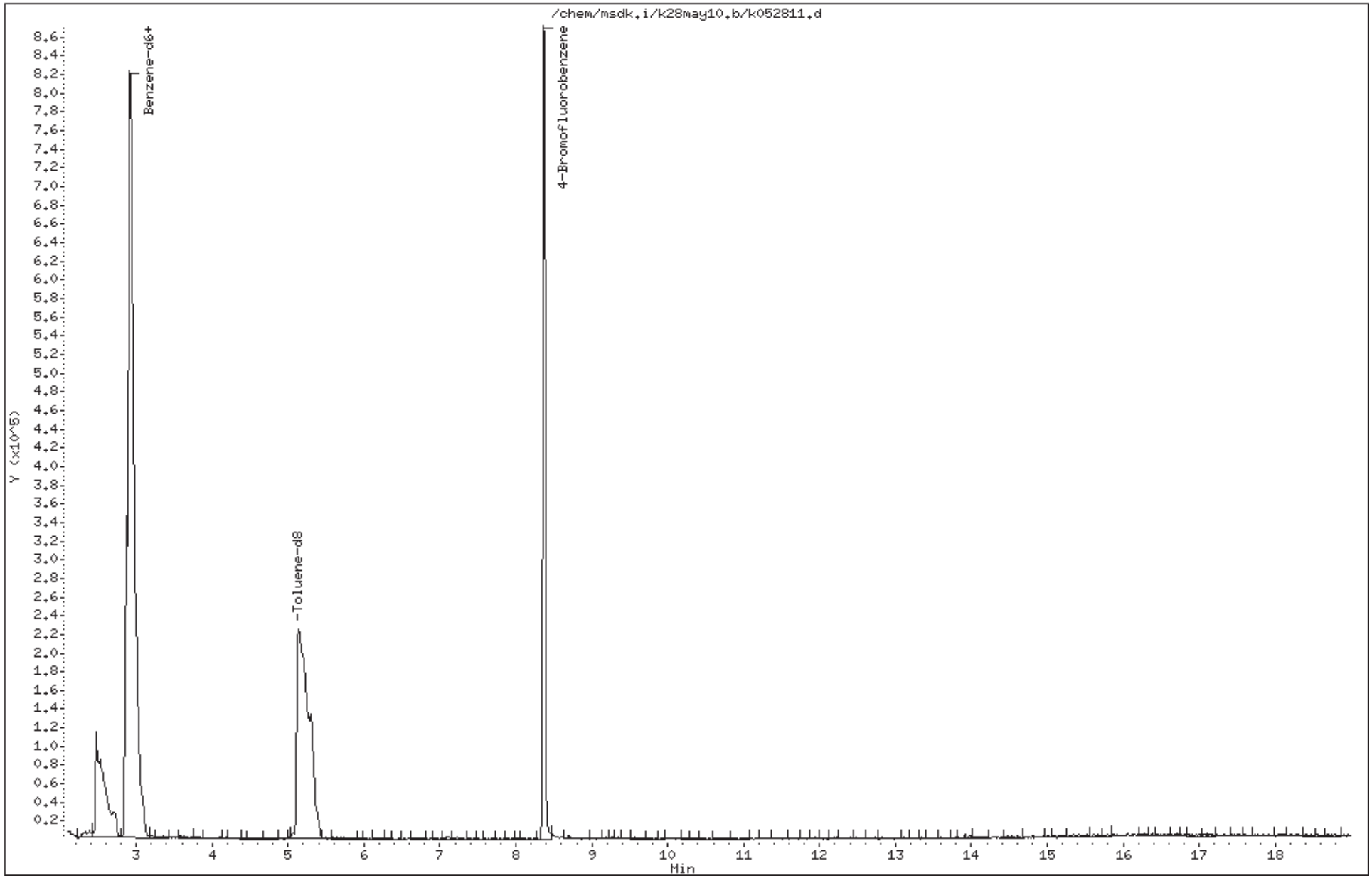
Instrument: msdk.i

Sample Info: ;1005453C-17A;

Operator: LZ

Column phase: DB-5.625

Column diameter: 0.25



Data File: /chem/msdk.i/k28may10.b/k052812.d

Date : 28-MAY-2010 13:36

Client ID:

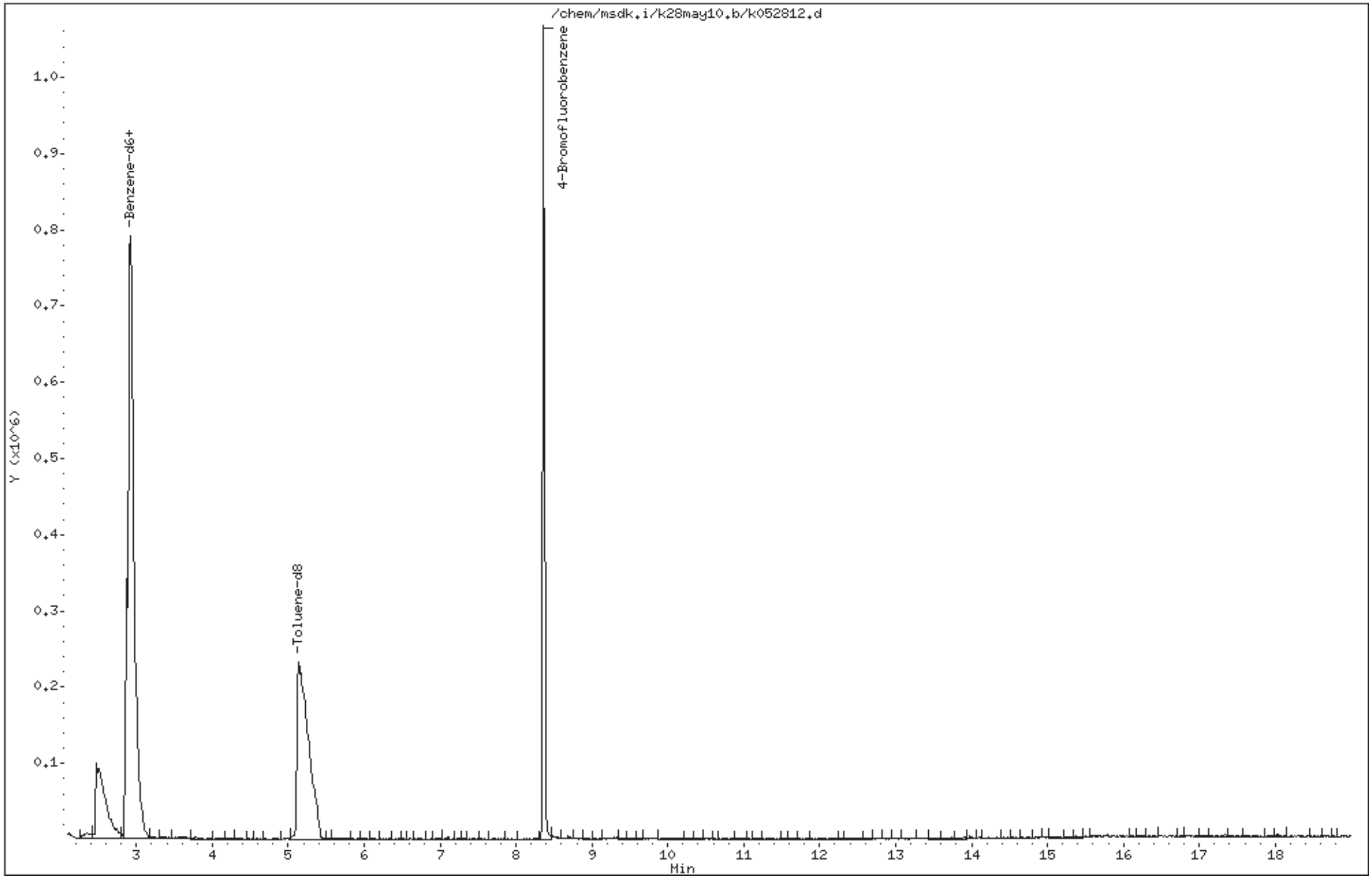
Instrument: msdk.i

Sample Info: ;1005453C-17B;

Operator: LZ

Column phase: DB-5.625

Column diameter: 0.25



Summary of Detected Compounds
SILOXANES - GC/MS

Client Sample ID: GV-1 Lab Duplicate

Lab ID#: 1005453C-17ABB

No Detections Were Found.

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: GV-1 Lab Duplicate

Lab ID#: 1005453C-17ABB

SILOXANES - GC/MS

File Name:	**k052813**	**Date of Collection: 5/16/10 3:38:00 PM**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/28/10 02:00 PM**	

Compound	Rpt. Limit (ug)	Amount (ug)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Octamethylcyclotetrasiloxane (D4)	29	Not Detected	1400	Not Detected
Decamethylcylopentasiloxane (D5)	29	Not Detected	1400	Not Detected
Dodecamethylcyclohexasiloxane (D6)	58	Not Detected	2800	Not Detected
Hexamethyldisiloxane	29	Not Detected	1400	Not Detected
Octamethyltrisiloxane	29	Not Detected	1400	Not Detected

Air Sample Volume(L): 20.7
Impinger Total Volume(mL): 28.9

Container Type: Vial

Surrogates	%Recovery	Method Limits
Hexamethyl disiloxane -d18	101	70-130

Air Toxics Ltd.

Siloxane Analysis by GC/MS

Data file : /chem/msdk.i/k28may10.b/k052813.d
Lab Smp Id: 1005453C-17ABB
Inj Date : 28-MAY-2010 14:00
Operator : LZ Inst ID: msdk.i
Smp Info : ;1005453C-17AA;
Misc Info :
Comment : HP5MS 30m x 0.25 mm 0.25u
Method : /chem/msdk.i/k28may10.b/k10k0323.m
Meth Date : 28-May-2010 12:24 lzhang Quant Type: ISTD
Cal Date : 23-MAR-2010 18:31 Cal File: k032312.d
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: silo.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * v * CpndVariable
v 13.70000 final volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (uG/mL)	FINAL (ug)
* 3	Benzene-d6	84	2.872	2.872	(1.000)	741586	40.0000	
$ 4	Hexamethyldisiloxane-d18	162	2.924	2.924	(1.018)	1250099	40.5091	40.5
5	hexamethyldisiloxane(mm)	147	Compound Not Detected.					
* 6	Toluene-d8	98	5.139	5.148	(1.000)	709212	40.0000	
7	octamethyltrisiloxane(mdm)	221	Compound Not Detected.					
* 8	4-Bromofluorobenzene	174	8.367	8.377	(1.000)	242232	40.0000	
9	octa-m-cyclotetrasiloxane(d4)	281	Compound Not Detected.					
10	deca-m-cyclopentasiloxane(d5)	267	Compound Not Detected.					
165	Dodeca-mcyclohexasiloxane(d6)	341	Compound Not Detected.					

Air Toxics Ltd.

Siloxane Analysis by GC/MS

Data file : /chem/msdk.i/k28may10.b/k052814.d
Lab Smp Id: 1005453C-17BB
Inj Date : 28-MAY-2010 14:24
Operator : LZ Inst ID: msdk.i
Smp Info : ;1005453C-17BB;
Misc Info :
Comment : HP5MS 30m x 0.25 mm 0.25u
Method : /chem/msdk.i/k28may10.b/k10k0323.m
Meth Date : 28-May-2010 12:24 lzhang Quant Type: ISTD
Cal Date : 23-MAR-2010 18:31 Cal File: k032312.d
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: silo.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * v * CpndVariable
v 15.20000 final volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (uG/mL)	FINAL (ug)
* 3	Benzene-d6	84	2.859	2.872	(1.000)	801698	40.0000	
$ 4	Hexamethyldisiloxane-d18	162	2.921	2.924	(1.022)	1367668	40.9959	41.0
5	hexamethyldisiloxane(mm)	147	Compound Not Detected.					
* 6	Toluene-d8	98	5.135	5.148	(1.000)	764884	40.0000	
7	octamethyltrisiloxane(mdm)	221	Compound Not Detected.					
* 8	4-Bromofluorobenzene	174	8.364	8.377	(1.000)	263588	40.0000	
9	octa-m-cyclotetrasiloxane(d4)	281	Compound Not Detected.					
10	deca-m-cyclopentasiloxane(d5)	267	Compound Not Detected.					
165	Dodeca-mcyclohexasiloxane(d6)	341	Compound Not Detected.					

Report Date: 02-Jun-2010 20:19

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdk.i
Lab File ID: k052813.d
Lab Smp Id: 1005453C-17ABB
Analysis Type: SV
Quant Type: ISTD
Operator: LZ
Method File: /chem/msdk.i/k28may10.b/k10k0323.m
Misc Info:

Calibration Date: 28-MAY-2010
Calibration Time: 11:58
Level: MED
Sample Type: WATER

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	819981	409990	1639962	741586	-9.56
6 Toluene-d8	797846	398923	1595692	709212	-11.11
8 4-Bromofluorobenz	279522	139761	559044	242232	-13.34

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	2.87	2.37	3.37	2.87	0.02
6 Toluene-d8	5.15	4.65	5.65	5.14	-0.19
8 4-Bromofluorobenz	8.38	7.88	8.88	8.37	-0.12

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Report Date: 02-Jun-2010 20:19

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdk.i
Lab File ID: k052814.d
Lab Smp Id: 1005453C-17BB
Analysis Type: SV
Quant Type: ISTD
Operator: LZ
Method File: /chem/msdk.i/k28may10.b/k10k0323.m
Misc Info:

Calibration Date: 28-MAY-2010
Calibration Time: 11:58
Level: MED
Sample Type: WATER

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	819981	409990	1639962	801698	-2.23
6 Toluene-d8	797846	398923	1595692	764884	-4.13
8 4-Bromofluorobenz	279522	139761	559044	263588	-5.70

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	2.87	2.37	3.37	2.86	-0.45
6 Toluene-d8	5.15	4.65	5.65	5.14	-0.25
8 4-Bromofluorobenz	8.38	7.88	8.88	8.36	-0.15

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Report Date: 02-Jun-2010 20:19

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: k28may10
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: 1005453C-17ABB
Level: MED Operator: LZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: LCS50.spk Quant Type: ISTD
Sublist File: silo.sub
Method File: /chem/msdk.i/k28may10.b/k10k0323.m
Misc Info:

SURROGATE COMPOUND	AMOUNT ADDED uG/mL	AMOUNT RECOVERED uG/mL	% RECOVERED	LIMITS
$ 4 Hexamethyldisiloxa	40.0	40.5	101.27	70-130

Report Date: 02-Jun-2010 20:19

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: k28may10
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: 1005453C-17BB
Level: MED Operator: LZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: LCS50.spk Quant Type: ISTD
Sublist File: silo.sub
Method File: /chem/msdk.i/k28may10.b/k10k0323.m
Misc Info:

SURROGATE COMPOUND	AMOUNT ADDED uG/mL	AMOUNT RECOVERED uG/mL	% RECOVERED	LIMITS
$ 4 Hexamethyldisiloxa	40.0	41.0	102.49	70-130

Data File: /chem/msdk.i/k28may10.b/k052813.d

Page 1

Date : 28-MAY-2010 14:00

Client ID:

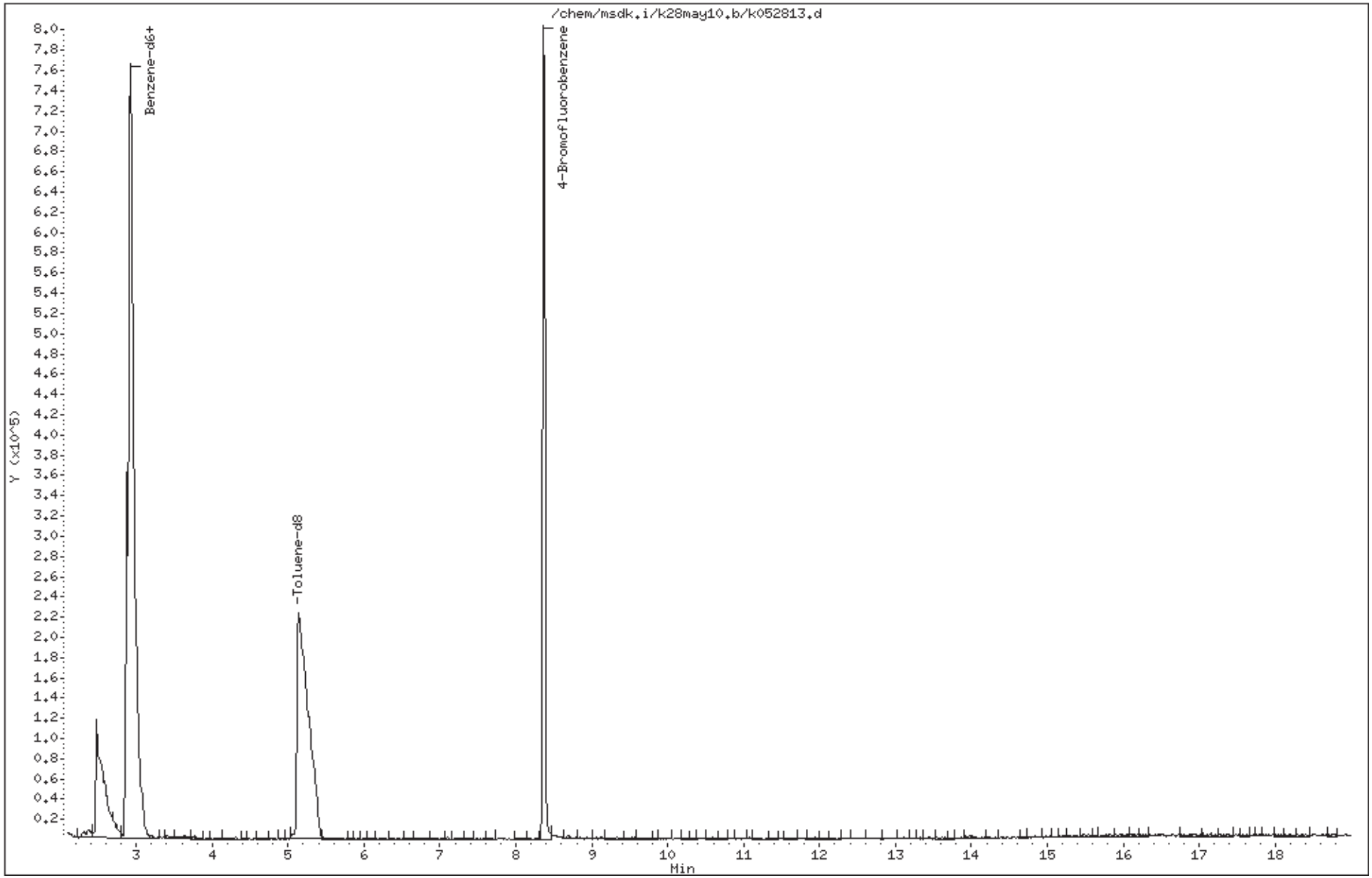
Instrument: msdk.i

Sample Info: ;1005453C-17AA;

Operator: LZ

Column phase: DB-5.625

Column diameter: 0.25



Data File: /chem/msdk.i/k28may10.b/k052814.d

Page 1

Date : 28-MAY-2010 14:24

Client ID:

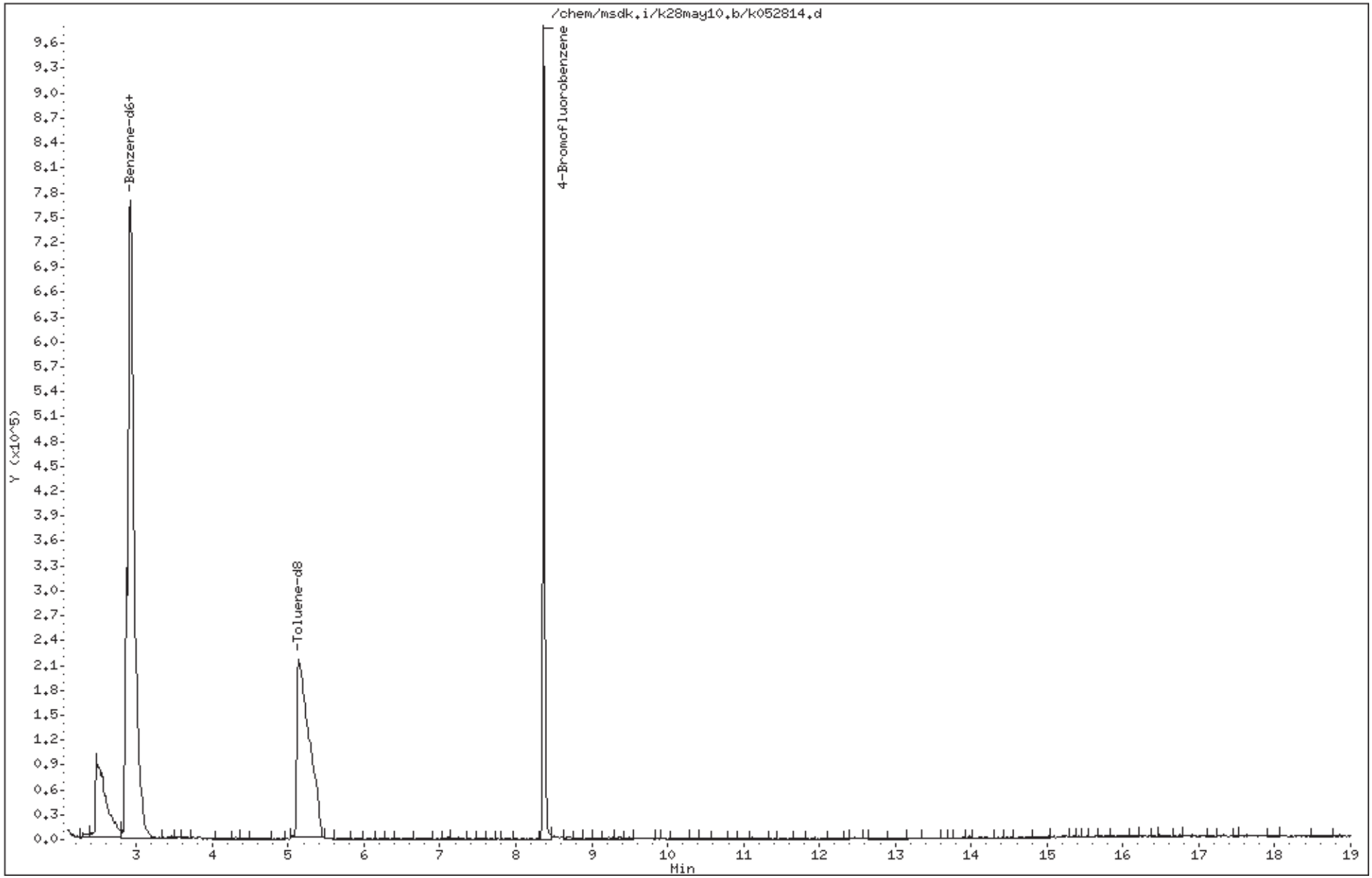
Instrument: msdk.i

Sample Info: ;1005453C-17BB;

Operator: LZ

Column phase: DB-5.625

Column diameter: 0.25



Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
SILOXANES - GC/MS

Client Sample ID: GV-6

Lab ID#: 1005453C-18AB

No Detections Were Found.

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: GV-6

Lab ID#: 1005453C-18AB

SILOXANES - GC/MS

File Name:	**k052836**	**Date of Collection: 5/16/10 4:20:00 PM**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/28/10 11:11 PM**	

Compound	Rpt. Limit (ug)	Amount (ug)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Octamethylcyclotetrasiloxane (D4)	26	Not Detected	1300	Not Detected
Decamethylcylopentasiloxane (D5)	26	Not Detected	1300	Not Detected
Dodecamethylcyclohexasiloxane (D6)	53	Not Detected	2500	Not Detected
Hexamethyldisiloxane	26	Not Detected	1300	Not Detected
Octamethyltrisiloxane	26	Not Detected	1300	Not Detected

Air Sample Volume(L): 20.8
Impinger Total Volume(mL): 26.5

Container Type: Vial

Surrogates	%Recovery	Method Limits
Hexamethyl disiloxane -d18	96	70-130

Air Toxics Ltd.

Siloxane Analysis by GC/MS

Data file : /chem/msdk.i/k28may10a.b/k052836.d
Lab Smp Id: 1005453C-18AB
Inj Date : 28-MAY-2010 23:11
Operator : LZ Inst ID: msdk.i
Smp Info : ;1005453C-18A;
Misc Info :
Comment : HP5MS 30m x 0.25 mm 0.25u
Method : /chem/msdk.i/k28may10a.b/k10k0323.m
Meth Date : 28-May-2010 20:50 atoyama Quant Type: ISTD
Cal Date : 23-MAR-2010 18:31 Cal File: k032312.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: silo.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * v * CpndVariable
v 12.20000 final volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (uG/mL)	FINAL (ug)
* 3	Benzene-d6	84	2.871	2.881	(1.000)	711354	40.0000	
$ 4	Hexamethyldisiloxane-d18	162	2.923	2.933	(1.018)	1136898	38.4066	38.4
5	hexamethyldisiloxane(mm)	147	Compound Not Detected.					
* 6	Toluene-d8	98	5.148	5.158	(1.000)	649644	40.0000	
7	octamethyltrisiloxane(mdm)	221	Compound Not Detected.					
* 8	4-Bromofluorobenzene	174	8.356	8.376	(1.000)	221044	40.0000	
9	octa-m-cyclotetrasiloxane(d4)	281	Compound Not Detected.					
10	deca-m-cyclopentasiloxane(d5)	267	Compound Not Detected.					
165	Dodeca-mcyclohexasiloxane(d6)	341	Compound Not Detected.					

Air Toxics Ltd.

Siloxane Analysis by GC/MS

Data file : /chem/msdk.i/k28may10a.b/k052837.d
Lab Smp Id: 1005453C-18B
Inj Date : 28-MAY-2010 23:35
Operator : LZ Inst ID: msdk.i
Smp Info : ;1005453C-18B;
Misc Info :
Comment : HP5MS 30m x 0.25 mm 0.25u
Method : /chem/msdk.i/k28may10a.b/k10k0323.m
Meth Date : 28-May-2010 20:50 atoyama Quant Type: ISTD
Cal Date : 23-MAR-2010 18:31 Cal File: k032312.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: silo.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * v * CpndVariable
v 14.30000 final volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (uG/mL)	FINAL (ug)
* 3	Benzene-d6	84	2.882	2.881	(1.000)	657323	40.0000	
$ 4	Hexamethyldisiloxane-d18	162	2.934	2.933	(1.018)	1066344	38.9842	39.0
5	hexamethyldisiloxane(mm)	147	Compound Not Detected.					
* 6	Toluene-d8	98	5.149	5.158	(1.000)	589895	40.0000	
7	octamethyltrisiloxane(mdm)	221	Compound Not Detected.					
* 8	4-Bromofluorobenzene	174	8.367	8.376	(1.000)	198861	40.0000	
9	octa-m-cyclotetrasiloxane(d4)	281	Compound Not Detected.					
10	deca-m-cyclopentasiloxane(d5)	267	Compound Not Detected.					
165	Dodeca-mcyclohexasiloxane(d6)	341	Compound Not Detected.					

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdk.i
Lab File ID: k052836.d
Lab Smp Id: 1005453C-18AB
Analysis Type: SV
Quant Type: ISTD
Operator: LZ
Method File: /chem/msdk.i/k28may10a.b/k10k0323.m
Misc Info:

Calibration Date: 28-MAY-2010
Calibration Time: 19:59
Level: MED
Sample Type: WATER

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	767574	383787	1535148	711354	-7.32
6 Toluene-d8	708584	354292	1417168	649644	-8.32
8 4-Bromofluorobenz	250041	125020	500082	221044	-11.60

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	2.88	2.38	3.38	2.87	-0.35
6 Toluene-d8	5.16	4.66	5.66	5.15	-0.19
8 4-Bromofluorobenz	8.38	7.88	8.88	8.36	-0.24

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdk.i
Lab File ID: k052837.d
Lab Smp Id: 1005453C-18B
Analysis Type: SV
Quant Type: ISTD
Operator: LZ
Method File: /chem/msdk.i/k28may10a.b/k10k0323.m
Misc Info:

Calibration Date: 28-MAY-2010
Calibration Time: 19:59

Level: MED
Sample Type: WATER

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	767574	383787	1535148	657323	-14.36
6 Toluene-d8	708584	354292	1417168	589895	-16.75
8 4-Bromofluorobenz	250041	125020	500082	198861	-20.47

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	2.88	2.38	3.38	2.88	0.03
6 Toluene-d8	5.16	4.66	5.66	5.15	-0.18
8 4-Bromofluorobenz	8.38	7.88	8.88	8.37	-0.11

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.