2655 Park Center Drive, Suite A Simi Valley, California 93065 (805) 526-7161 (805) 526-7270 fax

Columbia Analytical Services INC.
An Employee - Owned Company

May 21, 2007

Mr. Anand Helekar
TRC
21 Technology Drive
Irvine, CA 92618

RE: P2701193
WDI

Dear Mr. Helekar:

Enclosed are the results of the sample(s) submitted to our laboratory on April 25, 2007. For your reference, these analyses have been assigned our service request number P2701193.

All analyses were performed in accordance with our laboratory's quality assurance program. Results are intended to be considered in their entirety and apply only to the samples analyzed. Columbia Analytical Services is not responsible for use of less than the complete report. Your report contains 55 pages.

Columbia Analytical Services is certified by the California Department of Health Services, Certificate No. 2380; Arizona Department of Health Services, Certificate No. AZ0694; New Jersey Department of Environmental Protection, NELAP Laboratory Certification ID #CA009; New York State Department of Health, NELAP NY Lab ID No: 11221; Oregon Environmental Laboratory Accreditation Program, NELAP ID: CA20007; The American Industrial Hygiene Association, Laboratory #101661. Please contact me for specific method(s) and analyte(s) corresponding to a particular certification.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

Columbia Analytical Services, Inc.

Kate Aguilera

Kate Aguilera
Project Manager

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Columbia Analytical Services INC.
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LABORATORY REPORT

Client:	TRC	Date of Report:	05/21/07
Address:	21 Technology Drive	Date Received:	04/25/07
	Irvine, CA 92618	CAS Project No:	P2701193
Contact:	Mr. Anand Helekar	Purchase Order:	IRV-804579

Client Project ID: WDI

Two (2) Stainless Steel Summa Canisters labeled: "WDI-GTS-IN-4-23-07" and "WDI-GTS-OUT-4-23-07"

The samples were received at the laboratory under chain of custody on April 25, 2007. The samples were received intact. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time that they were received at the laboratory.

Methane and Total Gaseous Non-Methane Organics as Methane Analysis

The samples were analyzed for methane and total gaseous non-methane organics as methane according to modified EPA Method 25C. The analyses included a single sample injection (method modification) analyzed by gas chromatography using flame ionization detection/total combustion analysis.

Fixed Gases Analysis

The samples were also analyzed for fixed gases (hydrogen, oxygen/argon, nitrogen, carbon monoxide, and carbon dioxide) according to modified EPA Method 3C (single injection) using a gas chromatograph equipped with a thermal conductivity detector (TCD).

Reviewed and Approved:

Wade Henton
GC-VOA Team Leader
Air Quality Laboratory

Reviewed and Approved:

Chris Parnell
GCMS-VOA Team Leader
Air Quality Laboratory

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CAS Project No: P2701193

Volatile Organic Compound Analysis

The samples were also analyzed by combined gas chromatography/mass spectrometry (GC/MS) for volatile organic compounds. The analyses were performed according to the methodology outlined in EPA Method TO-15. However, the method was modified to include pressurization with Helium. The analyses were performed by gas chromatography/mass spectrometry, utilizing a direct cryogenic trapping technique. The analytical system used was comprised of an Agilent Model 5973inert GC/MS/DS interfaced to a Tekmar AutoCan Elite whole air inlet system/cryogenic concentrator. A 100% Dimethylpolysiloxane capillary column (RT_x-1, Restek Corporation, Bellefonte, PA) was used to achieve chromatographic separation.

The percent difference CCV report includes both positive and negative percent difference calculations, where positive percent differences correspond to biased low results and negative percent differences to biased high results.

The results of analyses are given in the attached data package. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for utilization of less than the complete report.

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Sample ID: **WDI-GTS-IN-4-23-07**
Client Project ID: **WDI**

CAS Project ID: P2701193
CAS Sample ID: P2701193-001

Test Code: EPA Method 25C Modified
Instrument ID: HP5890II/GC1/FID/TCA
Analyst: Wade Henton
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00389

Date Collected: 4/23/07
Date Received: 4/25/07
Date Analyzed: 4/30/07
Volume(s) Analyzed: 0.50 ml

Pi 1 = -2.1 Pf 1 = 3.6
D.F. = 1.45

CAS #	Compound	Result ppmV	MRL ppmV	Data Qualifier
74-82-8	Methane	**210**	0.73	
	Total Gaseous Nonmethane Organics (TGNMO) as Methane	**2.7**	1.5	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit.**
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 5/9/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Sample ID: **WDI-GTS-OUT-4-23-07**
Client Project ID: **WDI**

CAS Project ID: P2701193
CAS Sample ID: P2701193-002

Test Code: EPA Method 25C Modified
Instrument ID: HP5890II/GC1/FID/TCA
Analyst: Wade Henton
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00295

Date Collected: 4/23/07
Date Received: 4/25/07
Date Analyzed: 4/30/07
Volume(s) Analyzed: 0.50 ml

Pi 1 = -2.7 Pf 1 = 3.6
D.F. = 1.53

CAS #	Compound	Result ppmV	MRL ppmV	Data Qualifier
74-82-8	Methane	**210**	0.77	
	Total Gaseous Nonmethane Organics (TGNMO) as Methane	**2.7**	1.5	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 5/9/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Sample ID: **WDI-GTS-OUT-4-23-07**
Client Project ID: **WDI**

CAS Project ID: P2701193
CAS Sample ID: P2701193-002DUP

Test Code: EPA Method 25C Modified
Instrument ID: HP5890II/GC1/FID/TCA
Analyst: Wade Henton
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00295

Date Collected: 4/23/07
Date Received: 4/25/07
Date Analyzed: 4/30/07
Volume(s) Analyzed: 0.50 ml

Pi 1 = -2.7 Pf 1 = 3.6
D.F. = 1.53

CAS #	Compound	Result ppmV	MRL ppmV	Data Qualifier
74-82-8	Methane	**200**	0.77	
	Total Gaseous Nonmethane Organics (TGNMO) as Methane	**2.6**	1.5	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RC Date: 5/9/07

01193SVG.SC2 -Dup (2)

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Sample ID: **Method Blank**
Client Project ID: **WDI**

CAS Project ID: P2701193
CAS Sample ID: P070430-MB

Test Code: EPA Method 25C Modified
Instrument ID: HP5890II/GC1/FID/TCA
Analyst: Wade Henton
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 4/30/07
Volume(s) Analyzed: 0.50 ml

D.F. = 1.00

CAS #	Compound	Result ppmV	MRL ppmV	Data Qualifier
74-82-8	Methane	ND	0.50	
	Total Gaseous Nonmethane Organics (TGNMO) as Methane	ND	1.0	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: Rc Date: 5/9/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Sample ID: **Lab Control Sample**
Client Project ID: **WDI**

CAS Project ID: P2701193
CAS Sample ID: P070430-LCS

Laboratory Control Sample Summary

Test Code: EPA Method 25C Modified
Instrument ID: HP5890II/GC1/FID/TCA
Analyst: Wade Henton
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 4/30/07
Volume(s) Analyzed: NA

Compound	Spike Amount LCS ppmV	Result LCS ppmV	**% Recovery LCS**	Acceptance Limits	Data Qualifier
Methane	57.5	59.9	104	90-110	
Total Gaseous Nonmethane Organics (TGNMO) as Methane	345	353	102	90-110	

Verified By: RG Date: 5/9/07

Response Factor Report GC 01

Method : J:\GC01\METHODS\M102006.M (Chemstation Integrator)
Title : EPA 25C TCA/FID Analysis for TGNMO
Last Update : Mon Oct 23 16:38:21 2006
Response via : Initial Calibration

Calibration Files
1 =10200606.D 2 =10200607.D 3 =10200608.D
4 =10200609.D 5 =10200610.D 6 =10200611.D

	Compound	1	2	3	4	5	6	Avg		%RSD
1)	Carbon Monoxide	5.184	5.715	5.812	6.058	6.017	6.064	5.808	E3	5
2)	Methane	6.638	6.124	6.356	6.256	6.204	6.190	6.295	E3	2
3)	Carbon Dioxide	5.461	7.056	6.139	6.279	6.073	6.194	6.200	E3	8
4)	TGNMO-1	6.773	6.683	5.923	6.159	6.535	6.429	6.417	E3	5
5)	TGMNO-2	6.773	6.683	5.923	6.159	6.535	6.429	6.417	E3	5

10/23/06

#) = Out of Range

Compound #2: Methane (Page 3)

Lvl ID	Conc	Response	Lvl ID	Conc	Response
1	0.550	3651			
2	4.034	24705			
3	11.006	69950			
4	80.680	504760			
5	2751.710	17070304			
6	20170.000	124855778			

	Integration Parameter File	Sum?
Tgt		
		☐
		☐
		☐

Prev | Next | Plot | Page 1 | Page 2 | OK | Cancel | Help

Compound #4: TGH30-1 (Page 3)

Lvl ID	Conc	Response	Lvl ID	Conc	Response
1	0.819	5547			
2	6.000	40100			
3	16.371	96872			
4	120.000	739089			
5	4072.300	26614390			
6	29850.000	191892442			

	Integration Parameter File	Sum?
Tgt		

Prev | Next | Plot | Page 1 | Page 2 | OK | Cancel | Help

Compound #5: TGN40-2 (Page 3)

Lvl ID	Conc	Response	Lvl ID	Conc	Response
1	0.819	5547			
2	6.000	40100			
3	16.371	96872			
4	120.000	739089			
5	4072.300	26614390			
6	29850.000	191892442			

	Integration Parameter File	Sum?
Tgt		
		☐
		☐
		☐

Prev | | Plot | Page 1 | Page 2 | OK | Cancel | Help

Modified EPA Method 25C Daily QC Summary

Job# : TRC P2701193
Analyst : WHH
Method Name : EPA 25C TCA/FID Analysis for TGNMO

Instrument : GC01/TCD1
Date Analyzed : 4/30/07
Printed : 4/30/07

RT Summaries and QC Check (minutes)

Sample ID	Carbon Monoxide	Methane	Carbon Dioxide	TGNMO-1	TGMNO-2		File ID	Time
ICAL Mean RT	1.366	1.799	3.038	4.833				
RT Windows (+/- min)	0.030	0.031	0.038	0.030				
STD 100ppm S14-12280601	1.395	1.822	3.060	4.850			04300701.D	08:43
+/- 0.33min of ICAL Mean RT	Pass	Pass	Pass	Pass				
MB				N/A	N/A		04300702.D	09:15
LCS 345ppm S14-04050602	1.400 Pass	1.828 Pass	3.052 Pass	N/A	N/A		04300704.D	09:44
LCSD 345ppm S14-04050602	1.398 Pass	1.822 Pass	3.045 Pass	N/A	N/A		04300705.D	10:00
1193-002 v	1.246 Fail	1.811 Pass	Vent	N/A	N/A		04300706.D	10:21
1193-002dup v	1.252 Fail	1.813 Pass	Vent	N/A	N/A		04300707.D	10:44
1193-001 v	1.247 Fail	1.816 Pass	Vent	N/A	N/A		04300708.D	10:57
STD 100ppm S14-12280601	1.400 Pass	1.829 Pass	3.059 Pass	N/A	N/A		04300710.D	11:23

vv = Vent CO_2 / CH_4 v = Vent CO_2 N/A : Not Applicable

Continuing Calibration Standards Summary (ppm)

Sample ID	Carbon Monoxide	Methane	Carbon Dioxide			TGMNO	File ID	Time
ACTUAL	100.1	80.1	100.7			101.2		
CCV Criteria (+/- %D)	10.0%	10.0%	10.0%			10.0%		
STD 100ppm S14-12280601	92.8 Pass	74.7 Pass	90.5 Fail			102.9 Pass	04300701.D	08:43
STD 100ppm S14-12280601	97.8 Pass	78.8 Pass	97.3 Pass			108.3 Pass	04300710.D	11:23

LCS / LCS Dup Summary (ppm, without DF correction)

Sample ID	Carbon Monoxide	Methane	Carbon Dioxide			TGMNO	File ID	Time
LCS Actual Conc. (ppm)	57.9	57.5	57.9			345.0		
LCS Criteria (% Range)	96% - 120%	96% - 128%	81% - 117%			82% - 109%		
LCS 345ppm S14-04050602	61.8	59.9	58.6			353.4	04300704.D	09:44
LCS % Recovery	107%	104%	101%			102%		
	Pass	Pass	Pass			Pass		
LCSD 345ppm S14-04050602	62.1	60.6	59.1			353.4	04300705.D	10:00
LCS % Recovery	107%	105%	102%			102%		
	Pass	Pass	Pass			Pass		
Duplicate % RPD	0.6%	1.1%	0.9%			0.0%		
Duplicate Criteria % RPD	20%	26%	15%			16%		
	Pass	Pass	Pass			Pass		

Lab Dup Summary (ppm, without DF correction)

Sample ID	Carbon Monoxide	Methane	Carbon Dioxide			TGMNO	File ID	Time
1193-002 v	1.1	134.4	Vent			1.8	04300706.D	10:21
1193-002dup v	1.1	133.7	Vent			1.7	04300707.D	10:44
Duplicate % RPD	3.3%	0.5%				2.2%		
Duplicate Criteria % RPD	20%	26%	15%			16%		
	Pass	Pass				Pass		

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Directory: j:\gc01\data\25c\2006_10\20

e	Vial	FileName	Multiplier		SampleName	Misc Info	Injected
	1	10200601.d	1.		STD 100/80ppmS14-10110605		20 Oct 106 12::4
	1	10200602.d	1.		MB		20 Oct 106 12::5
	1	10200603.d	1.		Lab Air		20 Oct 106 12::0
	1	10200604.d	1.		LCS 345ppm		20 Oct 106 12::2
	1	10200605.d	1.		test low		20 Oct 106 13::5
	1	10200606.d	1.		STD 25C low level small loop	S14-10110606	20 Oct 106 13::0
	1	10200607.d	1.		STD 25C low level normal loop	S14-10110606	20 Oct 106 13::3
	1	10200608.d	1.		STD 25C mid level small loop	S14-10110605	20 Oct 106 12::0
	1	10200609.d	1.		STD 25C mid level normal loop	S14-10110605	20 Oct 106 12::2
	1	10200610.d	1.		STD 25C high level small loop	S14-10200601	20 Oct 106 12::1
	1	10200611.d	1.		STD 25C high level normal loop	S14-10200601	20 Oct 106 12::3
	1	10200612.d	1.		ICV S14-03270602		20 Oct 106 12::5
	1	10200613.d	1.		ICV S14-03270602	aprox 100/80ppm	20 Oct 106 12::2
	1	10200614.d	1.	X	MB electrical noise		20 Oct 106 12::3
	1	10200615.d	1.		MB good		20 Oct 106 12::0
	1	10200616.d	1.		MB		20 Oct 106 12::2

10/23/06

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23 Oct 06 16:54

COLUMBIA ANALYTICAL SERVICES
SAMPLE RUN LOG
ID: HP 5890 SERIES II / GC1

DATE: 4 / 30 / 2007 *DATA SYSTEM*: HP Chemstation *ANALYSIS*: ___25C ✓25C(MOD.) ___3C ___3C(MOD.)

INJECTOR: PACKED COLUMN
VALVE SYSTEM:
3C ___ REGULAR LOOP (100µL) ___ OTHER _____
25C ___ REGULAR LOOP (500µL) ___ SMALL LOOP (7.33:1)

COLUMN ID's:
___8' X 1/8" CARBOSPHERE
___4' X 1/8" TENAX / HAYSEP Q / CARBOSPHERE

TEMPERATURE PROGRAMMING:
INITIAL AT 50 °C FOR 2 min
RAMP RATE 30 °C/min TO 200 °C HOLD FOR 1 min

CARRIER GAS: He 25.1 mL/min

DETECTOR INFO: HP TCD #1: 260 °C SENSITIVITY: INITIAL HIGH, 1.5 min LOW
HP FID #1: 280 °C POLARITY: INITIAL NEGATIVE, 1.5 min POSITIVE

DATA PATHWAY: J:\GC1\DATA 25C\2007_04\30\ **METHOD FILE NAME: J:\GC1\METHODS**_____**.M**

	DATA FILE HEADER INFO	CLIENT	ANALYST
01	Std 100 ppm S14-12280601		ZW
02	MB		
03	Lab Air		
04	LCS 345 ppm S14-04050602		
05	LCSD		
06	1193-002 V	TRC	
07	-002 dup		
08	-001		
09	MB		
10	Std 100 ppm S14-12280601		
11			
12			
13		ZW	
14		5/1/07	
15			
16			
17			
18			
19			
20			

	DATA FILE HEADER INFO	CLIENT	ANALYST
21			
22			
23			
24			
25			
26			
27			
28			
29	ZW		
30			
31	5/1/07		
32			
33			
34			
35			
36			
37			
38			
39			
40			

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client : **TRC**
Client Sample ID: **WDI-GTS-IN-4-23-07**
Client Project ID: **WDI**

CAS Project ID: P2701193
CAS Sample ID: P2701193-001

Test Code: EPA Method 3C Modified
Instrument ID: HP5890II/GC1/TCD
Analyst: Wade Henton
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00389

Date Collected: 4/23/07
Date Received: 4/25/07
Date Analyzed: 4/30/07
Volume(s) Analyzed: 0.10 ml

Pi 1 = -2.1 Pf 1 = 3.6

D.F. = 1.45

CAS #	Compound	Result (%, v/v)	MRL (%, v/v)	Data Qualifier
1333-74-0	Hydrogen	ND	0.15	
7782-44-7 7440-37-1	Oxygen + Argon *	**15.6**	0.15	
7727-37-9	Nitrogen	**81.4**	0.15	
630-08-0	Carbon Monoxide	ND	0.15	
124-38-9	Carbon Dioxide	**2.93**	0.15	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit.**
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
* = Coeluting Compounds

Verified By: RL Date: 5/9/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client : **TRC**
Client Sample ID: **WDI-GTS-IN-4-23-07**
Client Project ID: **WDI**

CAS Project ID: P2701193
CAS Sample ID: P2701193-001DUP

Test Code: EPA Method 3C Modified
Instrument ID: HP5890II/GC1/TCD
Analyst: Wade Henton
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00389

Date Collected: 4/23/07
Date Received: 4/25/07
Date Analyzed: 4/30/07
Volume(s) Analyzed: 0.10 ml

Pi 1 = -2.1 Pf 1 = 3.6

D.F. = 1.45

CAS #	Compound	Result (%, v/v)	MRL (%, v/v)	Data Qualifier
1333-74-0	Hydrogen	ND	0.15	
7782-44-7 7440-37-1	Oxygen + Argon *	**15.6**	0.15	
7727-37-9	Nitrogen	**81.5**	0.15	
630-08-0	Carbon Monoxide	ND	0.15	
124-38-9	Carbon Dioxide	**2.94**	0.15	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
* = Coeluting Compounds

Verified By: RC Date: 5/9/07

01193SVG.SC1 - Dup

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client : **TRC**
Client Sample ID: **WDI-GTS-OUT-4-23-07**
Client Project ID: **WDI**

CAS Project ID: P2701193
CAS Sample ID: P2701193-002

Test Code: EPA Method 3C Modified
Instrument ID: HP5890II/GC1/TCD
Analyst: Wade Henton
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00295

Date Collected: 4/23/07
Date Received: 4/25/07
Date Analyzed: 4/30/07
Volume(s) Analyzed: 0.10 ml

Pi 1 = -2.7 Pf 1 = 3.6
D.F. = 1.53

CAS #	Compound	Result (%, v/v)	MRL (%, v/v)	Data Qualifier
1333-74-0	Hydrogen	ND	0.15	
7782-44-7 7440-37-1	Oxygen + Argon *	**15.7**	0.15	
7727-37-9	Nitrogen	**81.4**	0.15	
630-08-0	Carbon Monoxide	ND	0.15	
124-38-9	Carbon Dioxide	**2.95**	0.15	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
* = Coeluting Compounds

Verified By: RG Date: 5/9/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client : **TRC**
Client Sample ID: **Method Blank**
Client Project ID: **WDI**

CAS Project ID: P2701193
CAS Sample ID: P070430-MB

Test Code: EPA Method 3C Modified
Instrument ID: HP5890II/GC1/TCD
Analyst: Wade Henton
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 4/30/07
Volume(s) Analyzed: 0.10 ml

D.F. = 1.00

CAS #	Compound	Result (%, v/v)	MRL (%, v/v)	Data Qualifier
1333-74-0	Hydrogen	ND	0.10	
7782-44-7 7440-37-1	Oxygen + Argon *	ND	0.10	
7727-37-9	Nitrogen	ND	0.10	
630-08-0	Carbon Monoxide	ND	0.10	
124-38-9	Carbon Dioxide	ND	0.10	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
* = Coeluting Compounds

Verified By: R.C. Date: 5/9/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Sample ID: **Lab Control Sample**
Client Project ID: **WDI**

CAS Project ID: P2701193
CAS Sample ID: P070430-LCS

Laboratory Control Sample Summary

Test Code: EPA Method 3C Modified
Instrument ID: HP5890II/GC1/TCD
Analyst: Wade Henton
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 4/30/07
Volume(s) Analyzed: NA

Compound	Spike Amount LCS ppmV	Result LCS ppmV	**% Recovery LCS**	CAS Acceptance Limits
Hydrogen	40,100	39,000	**97**	90-110
Oxygen + Argon *	50,000	52,200	**104**	90-110
Nitrogen	50,500	51,900	**103**	90-110
Carbon Monoxide	50,100	52,500	**105**	90-110
Carbon Dioxide	50,400	52,800	**105**	90-110

Verified By: RG Date: 5/9/07

Response Factor Report GC 01

Method : J:\GC01\METHODS\3C082106.M (Chemstation Integrator)
Title : EPA 3C GC/TCD Analysis for Fixed Gases
Last Update : Mon Aug 21 16:53:50 2006

Calibration Files
1 =08210605.D 2 =08210606.D 3 =08210607.D
4 =08210608.D 5 =08210609.D

	Compound	1	2	3	4	5	Avg		%RSD
1)	Hydrogen	0.969	0.809	0.886	1.007	0.994	0.933	E1	8.97
2)	Oxygen	1.329	1.193	1.293	1.265	1.167	1.249	E1	5.43
3)	Nitrogen	1.476	1.364	1.484	1.480	1.406	1.442	E1	3.74
4)	Carbon Monoxide	1.384	1.312	1.423	1.406	1.323	1.370	E1	3.63
5)	Methane	1.027	0.996	1.061	1.039	0.973	1.019	E1	3.40
6)	Carbon Dioxide	1.559	1.511	1.614	1.591	1.498	1.555	E1	3.20

W# 8/22/06

) = Out of Range

Compound #1: Hydrogen (Page 3)

Lvl ID	Conc	Response	Lvl ID	Conc	Response
1	34.255	332			
2	697.000	5639			
3	4100.000	36325			
4	42927.000	432280			
5	73800.000	733283			

	Integration Parameter File	Sum?
Igt		

Next | Plot | Page 1 | Page 2 | OK | Cancel | Help

Compound #2: Oxygen (Page 3)

Lvl ID	Conc	Response	Lvl ID	Conc	Response
1	43.017	572			
2	841.500	10028			
3	4950.000	83907			
4	51828.500	655569			
5	89100.000	1039947			

	Integration Parameter File	Sum?	
Tot			
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Compound #3: Nitrogen (Page 3)

Lvl ID	Conc	Response	Lvl ID	Conc	Response
1	42.585	628			
2	844.050	11517			
3	4965.000	73699			
4	51983.550	769193			
5	89370.000	1256516			

	Integration Parameter File	Sum?
Tgt		
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		☐
		☐

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Compound #4: Carbon Monoxide (Page 3)

Lvl ID	Conc	Response	Lvl ID	Conc	Response
1	42.585	589			
2	853.400	11196			
3	5020.000	71443			
4	52559.400	738905			
5	90360.000	1195622			

	Integration Parameter File	Sum?
Tgt		
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		☐
		☐

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Compound #5: Methane (Page 3)

Lvl ID	Conc	Response	Lvl ID	Conc	Response
1	34.425	353			
2	685.700	6832			
3	4034.000	42792			
4	42235.980	438850			
5	72612.000	706850			

	Integration Parameter File	Sum?
Tot		
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		☐
		☐

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Compound #6 Carbon Dioxide (Page 3)

Lvl ID	Conc	Response	Lvl ID	Conc	Response
1	42.585	664			
2	847.450	12805			
3	4985.000	80434			
4	52192.950	830567			
5	89730.000	1344318			

	Integration Parameter File	Sum?
Igt		
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		☐
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0.000

0.000

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Modified EPA Method 3C Daily QC Summary

Calient & job# : TRC P2701193
Analyst : WHH
Method Name : EPA 3C GC/TCD Analysis for Fixed Gases

Instrument : GC01/TCD1
Date Analyzed : 4/30/07
Printed : 4/30/07

RT Summaries and QC Check (minutes)

Sample ID	Hydrogen	Oxygen	Nitrogen	Carbon Monoxide	Methane	Carbon Dioxide	File ID	Time
ICAL Mean RT	0.754	2.291	2.472	3.165	5.134	6.786		
RT Windows (+/- min)	0.125	0.137	0.125	0.216	0.142	0.216		
STD 50000ppm S14-12150602	0.815	2.555	2.743	3.443	5.433	7.081	04300701.D	08:43
+/- 0.33min of ICAL Mean RT	Pass	Pass	Pass	Pass	Pass	Pass		
MB							04300702.D	09:15
LCS (Lab Air)		2.509 Pass	2.657 Pass			7.100 Pass	04300703.D	09:32
LCS 50000ppm S14-12150601	0.817 Pass	2.556 Pass	2.743 Pass	3.442 Pass	5.432 Pass	7.081 Pass	04300704.D	09:44
1193-002		2.525 Pass	2.670 Pass			7.085 Pass	04300705.D	10:00
1193-001		2.521 Pass	2.665 Pass			7.084 Pass	04300706.D	10:21
1193-001dup		2.520 Pass	2.664 Pass			7.082 Pass	04300707.D	10:44
STD 50000ppm S14-12150602	0.806 Pass	2.544 Pass	2.733 Pass	3.433 Pass	5.427 Pass	7.080 Pass	04300708.D	10:57

Continuing Calibration Standards Summary (ppm)

Sample ID	Hydrogen	Oxygen	Nitrogen	Carbon Monoxide	Methane	Carbon Dioxide	File ID	Time
ACTUAL	40100.0	49970.0	50540.0	50050.0	40050.0	50360.0		
CCV Criteria (+/- %D)	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%		
STD 50000ppm S14-12150602	39294.9 Pass	51366.775 Pass	51420.136 Pass	52132.356 Pass	42143.015 Pass	52977.971 Pass	04300701.D	08:43
STD 50000ppm S14-12150602	39498.799 Pass	51390.857 Pass	50405.084 Pass	52020.227 Pass	42079.941 Pass	52055.310 Pass	04300708.D	10:57

Lab Dup Summary (ppm, without DF correction and nomalization)

Sample ID	Hydrogen	Oxygen	Nitrogen	Carbon Monoxide	Methane	Carbon Dioxide	File ID	Time
Duplicate Criteria % RPD	37%	24%	19%	7%	10%	15%		
1193-001		129903.8	677143.7			24326.6	04300706.D	10:21
1193-001dup		130109.1	679866.7			24561.2	04300707.D	10:44
Duplicate % RPD		0.2% Pass	0.4% Pass			0.9% Pass		

LCS / LCS Dup Summary (ppm, without DF correction)

Sample ID	Hydrogen	Oxygen	Nitrogen	Carbon Monoxide	Methane	Carbon Dioxide	File ID	Time
LCS Actual Conc. (ppm)	40100.0	49970.0	50540.0	50050.0	40050.0	50360.0		
LCS Criteria (% Range)	85% -115%	90% - 110%	90% - 110%	90% - 110%	90% - 110%	90% - 110%		
LCS 50000ppm S14-12150601	38991.7	52157.1	51925.5	52548.2	42369.9	52784.2	04300704.D	09:44
LCS % Recovery	97% Pass	104% Pass	103% Pass	105% Pass	106% Pass	105% Pass		

Lab Air QC Summary

Sample ID	Hydrogen	Oxygen	Nitrogen	Carbon Monoxid	Methane	Carbon Dioxide	Lab Air Criteria Total (90%-110%)
LCS (Lab Air)		227754.4	810096.0			463.4	103.8% Pass
Lab Air Normalized (%)		21.93%	78.01%			0.04%	99.99%

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Directory: j:\gc01\data\fxg\2006_08\21

ıe	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
	4	08210601.d	10.	Test		21 Aug 106 12::5
	4	08210602.d	10.	Test		21 Aug 106 13::5
	4	08210603.d	10.	MB		21 Aug 106 13::0
	4	08210604.d	10.	test		21 Aug 106 12::1
	4	08210605.d	10.	STD 1 S14-03260601 (loop 0.17)		21 Aug 106 12::3
	4	08210606.d	10.	STD 2 S14-04120602 (loop 0.17)		21 Aug 106 12::1
	5	08210607.d	10.	STD 3 S14-04120602 (loop 1.00)		21 Aug 106 12::3
	5	08210608.d	10.	STD 4 S14-04120602 (loop 10.47)		21 Aug 106 12::4
	5	08210609.d	10.	STD 5 S14-~~05~~ 4 120602 (loop 18.0)		21 Aug 106 12::5
	5	08210610.d	10.	lab air	[illegible]	21 Aug 106 12::1
	5	08210611.d	10.	icv		21 Aug 106 12::2
	5	08210612.d	10.	ICV S14-07110501		21 Aug 106 12::5
	5	08210613.d	10.	blank		21 Aug 106 12::1

COLUMBIA ANALYTICAL SERVICES
SAMPLE RUN LOG
ID: HP 5890 SERIES II / GC1

DATE: 4 / 30 / 2007 DATA SYSTEM: HP Chemstation ANALYSIS: ___25C ___25C(MOD.) ___3C ✓3C(MOD.)

INJECTOR: PACKED COLUMN
VALVE SYSTEM:
3C ___ REGULAR LOOP (100µL) ___ OTHER _____
25C ___ REGULAR LOOP (500µL) ___ SMALL LOOP (7.33:1)

COLUMN ID's:
___8' X 1/8" CARBOSPHERE
___4' X 1/8" TENAX / HAYSEP Q / CARBOSPHERE

TEMPERATURE PROGRAMMING:
INITIAL AT 50 °C FOR 2 min
RAMP RATE 30 °C/min TO 200 °C HOLD FOR 1 min

CARRIER GAS: He 25.1 mL/min

DETECTOR INFO: HP TCD #1: 260 °C SENSITIVITY: INITIAL HIGH, 1.5 min LOW
HP FID #1: 280 °C POLARITY: INITIAL NEGATIVE, 1.5 min POSITIVE

DATA PATHWAY: J:\GC1\DATA\Fxs\2007_04\30\ METHOD FILE NAME: J:\GC1\METHODS_____.M

	DATA FILE HEADER INFO	CLIENT	ANALYST
01	Std 50000 ppm 514-12150602		ZW
02	MB		
03	LCS (Lab Air)		
04	LCS 50000 ppm 514-12150601		
05	1193-002	JRC	
06	-001		
07	-001 dup		
08	Std 50000 ppm		
09	Wait		
10			
11			
12			
13		ZW	
14		5/1/07	
15			
16			
17			
18			
19			
20			

	DATA FILE HEADER INFO	CLIENT	ANALYST
21			
22			
23			
24			
25			
26			
27			
28			
29			
30	ZW		
31	5/1/07		
32			
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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Sample ID: **WDI-GTS-IN-4-23-07**
Client Project ID: **WDI**

CAS Project ID: P2701193
CAS Sample ID: P2701193-001

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00389

Date Collected: 4/23/07
Date Received: 4/25/07
Date(s) Analyzed: 5/2/07
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -2.1 Pf 1 = 3.6

Can D.F. = 1.45

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	**2.5**	1.5	**1.2**	0.70	
75-01-4	Vinyl Chloride	**9.6**	1.5	**3.7**	0.57	
74-83-9	Bromomethane	ND	1.5	ND	0.37	
75-00-3	Chloroethane	**1.7**	1.5	**0.65**	0.55	
67-64-1	Acetone	**11**	7.3	**4.7**	3.1	
75-69-4	Trichlorofluoromethane	**3.2**	1.5	**0.57**	0.26	
75-35-4	1,1-Dichloroethene	ND	1.5	ND	0.37	
75-09-2	Methylene chloride	ND	1.5	ND	0.42	
76-13-1	Trichlorotrifluoroethane	ND	1.5	ND	0.19	
75-15-0	Carbon Disulfide	**3.7**	1.5	**1.2**	0.47	
156-60-5	trans-1,2-Dichloroethene	ND	1.5	ND	0.37	
75-34-3	1,1-Dichloroethane	ND	1.5	ND	0.36	
1634-04-4	Methyl tert-Butyl Ether	ND	1.5	ND	0.40	
108-05-4	Vinyl Acetate	ND	1.5	ND	0.41	
78-93-3	2-Butanone (MEK)	**9.2**	1.5	**3.1**	0.49	
156-59-2	cis-1,2-Dichloroethene	ND	1.5	ND	0.37	
67-66-3	Chloroform	**6.3**	1.5	**1.3**	0.30	
107-06-2	1,2-Dichloroethane	ND	1.5	ND	0.36	
71-55-6	1,1,1-Trichloroethane	ND	1.5	ND	0.27	
71-43-2	Benzene	**16**	1.5	**4.9**	0.45	
56-23-5	Carbon Tetrachloride	ND	1.5	ND	0.23	
78-87-5	1,2-Dichloropropane	ND	1.5	ND	0.31	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 5/9/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Sample ID: **WDI-GTS-IN-4-23-07**
Client Project ID: **WDI**

CAS Project ID: P2701193
CAS Sample ID: P2701193-001

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00389

Date Collected: 4/23/07
Date Received: 4/25/07
Date(s) Analyzed: 5/2/07
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -2.1 Pf 1 = 3.6

Can D.F. = 1.45

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-27-4	Bromodichloromethane	ND	1.5	ND	0.22	
79-01-6	Trichloroethene	**4.3**	1.5	**0.80**	0.27	
10061-01-5	cis-1,3-Dichloropropene	ND	1.5	ND	0.32	
108-10-1	4-Methyl-2-pentanone	ND	1.5	ND	0.35	
10061-02-6	trans-1,3-Dichloropropene	ND	1.5	ND	0.32	
79-00-5	1,1,2-Trichloroethane	ND	1.5	ND	0.27	
108-88-3	Toluene	**3.1**	1.5	**0.83**	0.38	
591-78-6	2-Hexanone	**7.6**	1.5	**1.9**	0.35	
124-48-1	Dibromochloromethane	ND	1.5	ND	0.17	
106-93-4	1,2-Dibromoethane	ND	1.5	ND	0.19	
127-18-4	Tetrachloroethene	**16**	1.5	**2.3**	0.21	
108-90-7	Chlorobenzene	ND	1.5	ND	0.31	
100-41-4	Ethylbenzene	ND	1.5	ND	0.33	
179601-23-1	*m,p*-Xylenes	**1.6**	1.5	**0.38**	0.33	
75-25-2	Bromoform	ND	1.5	ND	0.14	
100-42-5	Styrene	ND	1.5	ND	0.34	
95-47-6	o-Xylene	ND	1.5	ND	0.33	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.5	ND	0.21	
541-73-1	1,3-Dichlorobenzene	ND	1.5	ND	0.24	
106-46-7	1,4-Dichlorobenzene	ND	1.5	ND	0.24	
95-50-1	1,2-Dichlorobenzene	ND	1.5	ND	0.24	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 5/9/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Sample ID: **WDI-GTS-IN-4-23-07**
Client Project ID: **WDI**

CAS Project ID: P2701193
CAS Sample ID: P2701193-001DUP

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00389

Date Collected: 4/23/07
Date Received: 4/25/07
Date(s) Analyzed: 5/2/07
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -2.1 Pf 1 = 3.6

Can D.F. = 1.45

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	**2.1**	1.5	**1.0**	0.70	
75-01-4	Vinyl Chloride	**9.7**	1.5	**3.8**	0.57	
74-83-9	Bromomethane	ND	1.5	ND	0.37	
75-00-3	Chloroethane	**1.7**	1.5	**0.63**	0.55	
67-64-1	Acetone	**11**	7.3	**4.7**	3.1	
75-69-4	Trichlorofluoromethane	**3.3**	1.5	**0.59**	0.26	
75-35-4	1,1-Dichloroethene	ND	1.5	ND	0.37	
75-09-2	Methylene chloride	ND	1.5	ND	0.42	
76-13-1	Trichlorotrifluoroethane	ND	1.5	ND	0.19	
75-15-0	Carbon Disulfide	**3.7**	1.5	**1.2**	0.47	
156-60-5	trans-1,2-Dichloroethene	ND	1.5	ND	0.37	
75-34-3	1,1-Dichloroethane	ND	1.5	ND	0.36	
1634-04-4	Methyl tert-Butyl Ether	ND	1.5	ND	0.40	
108-05-4	Vinyl Acetate	ND	1.5	ND	0.41	
78-93-3	2-Butanone (MEK)	**9.2**	1.5	**3.1**	0.49	
156-59-2	cis-1,2-Dichloroethene	ND	1.5	ND	0.37	
67-66-3	Chloroform	**6.6**	1.5	**1.4**	0.30	
107-06-2	1,2-Dichloroethane	ND	1.5	ND	0.36	
71-55-6	1,1,1-Trichloroethane	ND	1.5	ND	0.27	
71-43-2	Benzene	**16**	1.5	**5.1**	0.45	
56-23-5	Carbon Tetrachloride	ND	1.5	ND	0.23	
78-87-5	1,2-Dichloropropane	ND	1.5	ND	0.31	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: Rc Date: 5/9/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Sample ID: **WDI-GTS-IN-4-23-07**
Client Project ID: **WDI**

CAS Project ID: P2701193
CAS Sample ID: P2701193-001DUP

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00389

Date Collected: 4/23/07
Date Received: 4/25/07
Date(s) Analyzed: 5/2/07
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -2.1 Pf 1 = 3.6

Can D.F. = 1.45

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-27-4	Bromodichloromethane	ND	1.5	ND	0.22	
79-01-6	Trichloroethene	**4.6**	1.5	**0.86**	0.27	
10061-01-5	cis-1,3-Dichloropropene	ND	1.5	ND	0.32	
108-10-1	4-Methyl-2-pentanone	ND	1.5	ND	0.35	
10061-02-6	trans-1,3-Dichloropropene	ND	1.5	ND	0.32	
79-00-5	1,1,2-Trichloroethane	ND	1.5	ND	0.27	
108-88-3	Toluene	**3.2**	1.5	**0.86**	0.38	
591-78-6	2-Hexanone	**7.3**	1.5	**1.8**	0.35	
124-48-1	Dibromochloromethane	ND	1.5	ND	0.17	
106-93-4	1,2-Dibromoethane	ND	1.5	ND	0.19	
127-18-4	Tetrachloroethene	**16**	1.5	**2.4**	0.21	
108-90-7	Chlorobenzene	ND	1.5	ND	0.31	
100-41-4	Ethylbenzene	ND	1.5	ND	0.33	
179601-23-1	*m,p*-Xylenes	**1.7**	1.5	**0.39**	0.33	
75-25-2	Bromoform	ND	1.5	ND	0.14	
100-42-5	Styrene	ND	1.5	ND	0.34	
95-47-6	o-Xylene	ND	1.5	ND	0.33	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.5	ND	0.21	
541-73-1	1,3-Dichlorobenzene	ND	1.5	ND	0.24	
106-46-7	1,4-Dichlorobenzene	ND	1.5	ND	0.24	
95-50-1	1,2-Dichlorobenzene	ND	1.5	ND	0.24	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RC Date: 5/9/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Sample ID: **WDI-GTS-OUT-4-23-07**
Client Project ID: **WDI**

CAS Project ID: P2701193
CAS Sample ID: P2701193-002

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00295

Date Collected: 4/23/07
Date Received: 4/25/07
Date(s) Analyzed: 5/2/07
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -2.7 Pf 1 = 3.6

Can D.F. = 1.53

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	**29**	1.5	**14**	0.74	
75-01-4	Vinyl Chloride	**7.3**	1.5	**2.9**	0.60	
74-83-9	Bromomethane	ND	1.5	ND	0.39	
75-00-3	Chloroethane	**8.7**	1.5	**3.3**	0.58	
67-64-1	Acetone	**57**	7.7	**24**	3.2	**M**
75-69-4	Trichlorofluoromethane	**3.2**	1.5	**0.58**	0.27	
75-35-4	1,1-Dichloroethene	ND	1.5	ND	0.39	
75-09-2	Methylene chloride	ND	1.5	ND	0.44	
76-13-1	Trichlorotrifluoroethane	ND	1.5	ND	0.20	
75-15-0	Carbon Disulfide	**3.7**	1.5	**1.2**	0.49	
156-60-5	trans-1,2-Dichloroethene	ND	1.5	ND	0.39	
75-34-3	1,1-Dichloroethane	ND	1.5	ND	0.38	
1634-04-4	Methyl tert-Butyl Ether	ND	1.5	ND	0.42	
108-05-4	Vinyl Acetate	ND	1.5	ND	0.43	
78-93-3	2-Butanone (MEK)	**32**	1.5	**11**	0.52	
156-59-2	cis-1,2-Dichloroethene	ND	1.5	ND	0.39	
67-66-3	Chloroform	**8.9**	1.5	**1.8**	0.31	
107-06-2	1,2-Dichloroethane	ND	1.5	ND	0.38	
71-55-6	1,1,1-Trichloroethane	ND	1.5	ND	0.28	
71-43-2	Benzene	**6.1**	1.5	**1.9**	0.48	
56-23-5	Carbon Tetrachloride	ND	1.5	ND	0.24	
78-87-5	1,2-Dichloropropane	ND	1.5	ND	0.33	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
M = Matrix interference; results may be biased high.

Verified By: RG Date: 5/9/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Sample ID: **WDI-GTS-OUT-4-23-07**
Client Project ID: **WDI**

CAS Project ID: P2701193
CAS Sample ID: P2701193-002

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00295

Date Collected: 4/23/07
Date Received: 4/25/07
Date(s) Analyzed: 5/2/07
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -2.7 Pf 1 = 3.6

Can D.F. = 1.53

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-27-4	Bromodichloromethane	ND	1.5	ND	0.23	
79-01-6	Trichloroethene	**4.8**	1.5	**0.90**	0.28	
10061-01-5	cis-1,3-Dichloropropene	ND	1.5	ND	0.34	
108-10-1	4-Methyl-2-pentanone	ND	1.5	ND	0.37	
10061-02-6	trans-1,3-Dichloropropene	ND	1.5	ND	0.34	
79-00-5	1,1,2-Trichloroethane	ND	1.5	ND	0.28	
108-88-3	Toluene	**2.1**	1.5	**0.55**	0.41	
591-78-6	2-Hexanone	**2.6**	1.5	**0.64**	0.37	**M**
124-48-1	Dibromochloromethane	ND	1.5	ND	0.18	
106-93-4	1,2-Dibromoethane	ND	1.5	ND	0.20	
127-18-4	Tetrachloroethene	**2.6**	1.5	**0.38**	0.23	
108-90-7	Chlorobenzene	ND	1.5	ND	0.33	
100-41-4	Ethylbenzene	ND	1.5	ND	0.35	
179601-23-1	*m,p*-Xylenes	**1.7**	1.5	**0.39**	0.35	
75-25-2	Bromoform	ND	1.5	ND	0.15	
100-42-5	Styrene	ND	1.5	ND	0.36	
95-47-6	o-Xylene	ND	1.5	ND	0.35	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.5	ND	0.22	
541-73-1	1,3-Dichlorobenzene	ND	1.5	ND	0.25	
106-46-7	1,4-Dichlorobenzene	ND	1.5	ND	0.25	
95-50-1	1,2-Dichlorobenzene	ND	1.5	ND	0.25	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
M = Matrix interference; results may be biased high.

Verified By: RG Date: 5/9/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Sample ID: **Method Blank**
Client Project ID: **WDI**

CAS Project ID: P2701193
CAS Sample ID: P070502-MB

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 5/2/07
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	1.0	ND	0.48	
75-01-4	Vinyl Chloride	ND	1.0	ND	0.39	
74-83-9	Bromomethane	ND	1.0	ND	0.26	
75-00-3	Chloroethane	ND	1.0	ND	0.38	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	1.0	ND	0.18	
75-35-4	1,1-Dichloroethene	ND	1.0	ND	0.25	
75-09-2	Methylene chloride	ND	1.0	ND	0.29	
76-13-1	Trichlorotrifluoroethane	ND	1.0	ND	0.13	
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ND	0.25	
75-34-3	1,1-Dichloroethane	ND	1.0	ND	0.25	
1634-04-4	Methyl tert-Butyl Ether	ND	1.0	ND	0.28	
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28	
78-93-3	2-Butanone (MEK)	ND	1.0	ND	0.34	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ND	0.25	
67-66-3	Chloroform	ND	1.0	ND	0.20	
107-06-2	1,2-Dichloroethane	ND	1.0	ND	0.25	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ND	0.18	
71-43-2	Benzene	ND	1.0	ND	0.31	
56-23-5	Carbon Tetrachloride	ND	1.0	ND	0.16	
78-87-5	1,2-Dichloropropane	ND	1.0	ND	0.22	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: Rc Date: 5/9/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Sample ID: **Method Blank**
Client Project ID: **WDI**

CAS Project ID: P2701193
CAS Sample ID: P070502-MB

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 5/2/07
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-27-4	Bromodichloromethane	ND	1.0	ND	0.15	
79-01-6	Trichloroethene	ND	1.0	ND	0.19	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ND	0.22	
108-10-1	4-Methyl-2-pentanone	ND	1.0	ND	0.24	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ND	0.22	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ND	0.18	
108-88-3	Toluene	ND	1.0	ND	0.27	
591-78-6	2-Hexanone	ND	1.0	ND	0.24	
124-48-1	Dibromochloromethane	ND	1.0	ND	0.12	
106-93-4	1,2-Dibromoethane	ND	1.0	ND	0.13	
127-18-4	Tetrachloroethene	ND	1.0	ND	0.15	
108-90-7	Chlorobenzene	ND	1.0	ND	0.22	
100-41-4	Ethylbenzene	ND	1.0	ND	0.23	
179601-23-1	*m,p*-Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	1.0	ND	0.097	
100-42-5	Styrene	ND	1.0	ND	0.23	
95-47-6	o-Xylene	ND	1.0	ND	0.23	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ND	0.15	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ND	0.17	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ND	0.17	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ND	0.17	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RL Date: 5/9/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **TRC**
Client Project ID: **WDI**

CAS Project ID: P2701193

Surrogate Spike Recovery Results

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister(s)
Test Notes:

Date Collected: 4/23/07
Date Received: 4/25/07
Date Analyzed: 5/2/07

Client Sample ID	CAS Sample ID	1,2-Dichloroethane-d4		Toluene-d8		Bromofluorobenzene		Data Qualifier
		% Recovered	Acceptance Limits	% Recovered	Acceptance Limits	% Recovered	Acceptance Limits	
Method Blank	P070502-MB	**86**	80-120	**103**	80-120	**100**	80-120	
Lab Control Sample	P070502-LCS	**91**	80-120	**103**	80-120	**99**	80-120	
Duplicate Lab Control Sample	P070502-DLCS	**89**	80-125	**102**	80-125	**101**	80-120	
WDI-GTS-IN-4-23-07	P2701193-001	**84**	80-120	**102**	80-120	**99**	80-120	
WDI-GTS-IN-4-23-07	P2701193-001DUP	**85**	80-120	**101**	80-120	**100**	80-120	
WDI-GTS-OUT-4-23-07	P2701193-002	**83**	80-120	**101**	80-120	**101**	80-120	

Verified By: Rcc Date: 5/9/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: TRC
Client Sample ID: Duplicate Lab Control Sample
Client Project ID : WDI

CAS Project ID: P2701193
CAS Sample ID: P070502-LCS, P070502-DLCS

Laboratory Control Sample/Duplicate Laboratory Control Sample Summary

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 5/2/07
Volume(s) Analyzed: NA

Compound	Spike Amt LCS/DLCS ng	Result LCS ng	Result DLCS ng	% Recovery LCS	% Recovery DLCS	Acceptance Limits	RPD	RPD Limit %	Data Qualifier
Chloromethane	24.3	27.8	21.7	**114**	**89**	65-135	**25**	35	
Vinyl Chloride	24.8	27.5	23.5	**111**	**95**	65-135	**16**	35	
Bromomethane	25.0	26.5	23.4	**106**	**94**	65-135	**12**	35	
Chloroethane	25.0	27.4	22.9	**110**	**92**	65-135	**18**	35	
Acetone	26.5	26.3	22.4	**99**	**85**	65-135	**15**	35	
Trichlorofluoromethane	24.3	24.0	21.8	**99**	**90**	65-135	**10**	35	
1,1-Dichloroethene	27.3	29.2	25.5	**107**	**93**	65-135	**14**	35	
Methylene chloride	26.8	28.7	24.7	**107**	**92**	65-135	**15**	35	
Trichlorotrifluoroethane	27.0	29.1	25.8	**108**	**96**	65-135	**12**	35	
Carbon Disulfide	25.0	27.3	23.3	**109**	**93**	65-135	**16**	35	
trans-1,2-Dichloroethene	26.3	28.4	24.4	**108**	**93**	65-135	**15**	35	
1,1-Dichloroethane	26.3	27.3	23.6	**104**	**90**	65-135	**14**	35	
Methyl tert-Butyl Ether	26.3	27.5	23.8	**105**	**90**	65-135	**15**	35	
Vinyl Acetate	24.3	29.4	24.7	**121**	**102**	65-135	**17**	35	
2-Butanone (MEK)	26.8	27.9	24.1	**104**	**90**	65-135	**14**	35	
cis-1,2-Dichloroethene	26.5	28.7	24.6	**108**	**93**	65-135	**15**	35	
Chloroform	30.0	28.2	25.0	**94**	**83**	65-135	**12**	35	
1,2-Dichloroethane	26.0	27.4	24.1	**105**	**93**	65-135	**12**	35	
1,1,1-Trichloroethane	26.3	28.0	24.1	**106**	**92**	65-135	**14**	35	
Benzene	26.3	29.0	24.8	**110**	**94**	65-135	**16**	35	
Carbon Tetrachloride	25.8	31.5	27.9	**122**	**108**	65-135	**12**	35	
1,2-Dichloropropane	26.0	30.1	25.6	**116**	**98**	65-135	**17**	35	

Verified By: RG Date: 5/9/07

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: TRC
Client Sample ID: Duplicate Lab Control Sample
Client Project ID : WDI

CAS Project ID: P2701193
CAS Sample ID: P070502-LCS, P070502-DLCS

Laboratory Control Sample/Duplicate Laboratory Control Sample Summary

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 5/2/07
Volume(s) Analyzed: NA

Compound	Spike Amt LCS/DLCS ng	Result LCS ng	Result DLCS ng	% Recovery LCS	% Recovery DLCS	Acceptance Limits	RPD	RPD Limit %	Data Qualifier
Bromodichloromethane	27.5	30.1	26.6	109	97	65-135	12	35	
Trichloroethene	27.3	29.9	26.2	110	96	65-135	14	35	
cis-1,3-Dichloropropene	26.0	27.4	23.5	105	90	65-135	15	35	
4-Methyl-2-pentanone	26.5	31.7	26.4	120	100	65-135	18	35	
trans-1,3-Dichloropropene	27.8	31.1	26.7	112	96	65-135	15	35	
1,1,2-Trichloroethane	25.8	28.9	24.8	112	96	65-135	15	35	
Toluene	26.0	29.7	25.2	114	97	65-135	16	35	
2-Hexanone	26.0	32.0	26.1	123	100	65-135	21	35	
Dibromochloromethane	26.5	31.2	26.8	118	101	65-135	16	35	
1,2-Dibromoethane	26.0	30.3	26.0	117	100	65-135	16	35	
Tetrachloroethene	25.8	28.8	25.0	112	97	65-135	14	35	
Chlorobenzene	26.0	29.6	25.2	114	97	65-135	16	35	
Ethylbenzene	25.8	29.7	25.4	115	98	65-135	16	35	
m,p-Xylenes	61.5	70.7	64.7	115	105	65-135	9	35	
Bromoform	31.3	35.3	30.4	113	97	65-135	15	35	
Styrene	25.8	29.0	26.7	112	103	65-135	8	35	
o-Xylene	29.0	33.3	30.5	115	105	65-135	9	35	
1,1,2,2-Tetrachloroethane	29.3	35.7	30.1	122	103	65-135	17	35	
1,3-Dichlorobenzene	25.3	29.4	27.5	116	109	65-135	6	35	
1,4-Dichlorobenzene	26.0	30.3	28.6	117	110	65-135	6	35	
1,2-Dichlorobenzene	25.5	30.1	28.1	118	110	65-135	7	35	

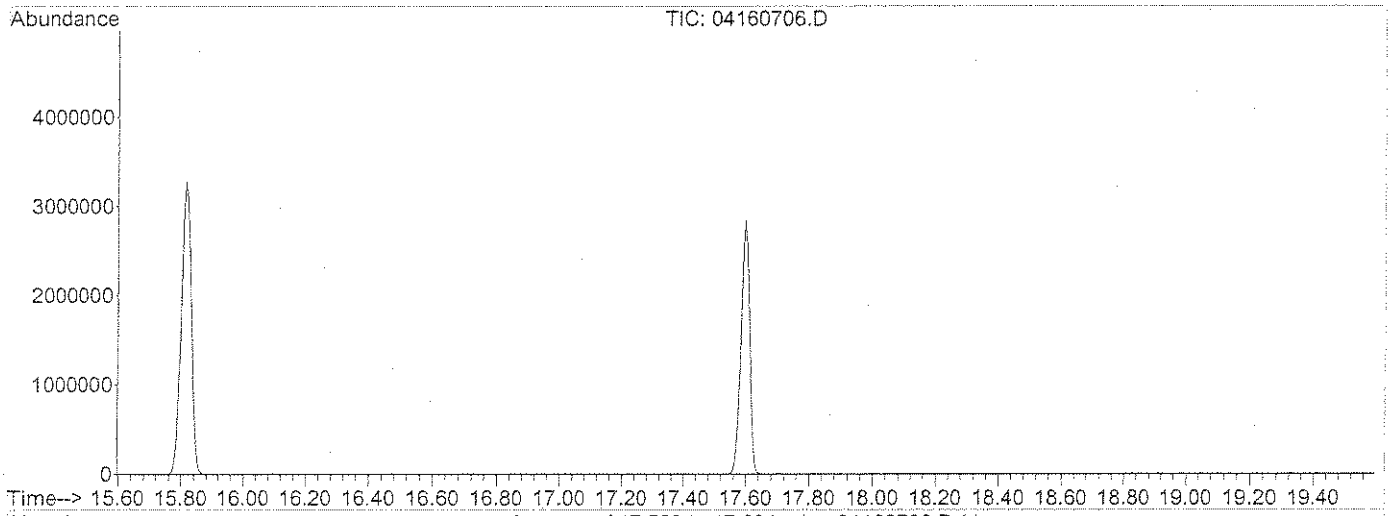
Verified By: RL Date: 5/9/07

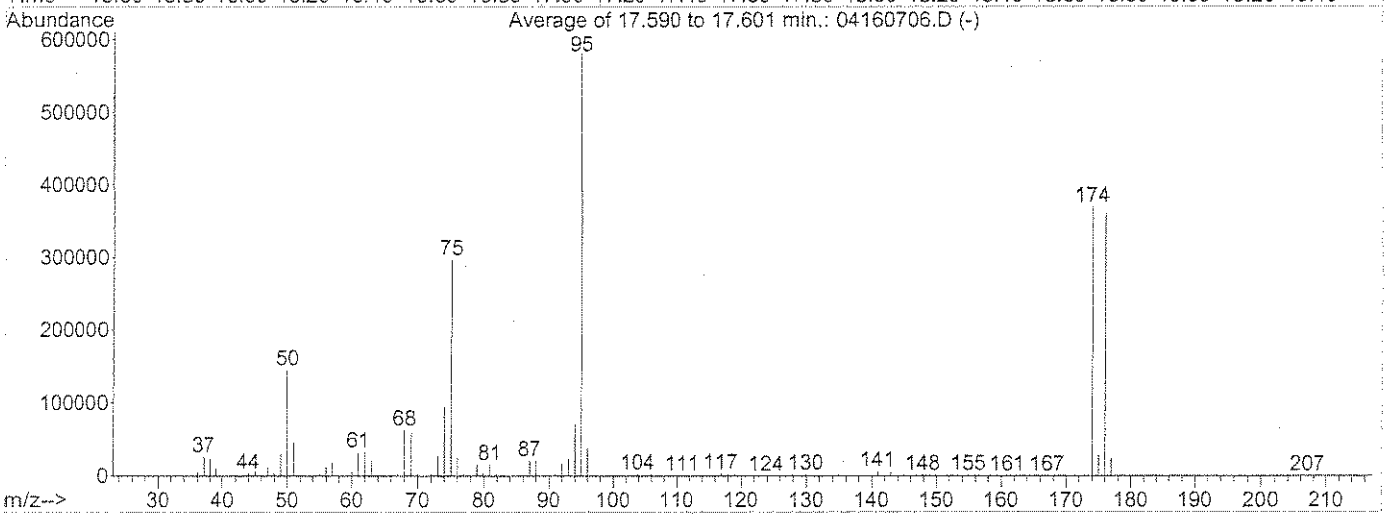
Data Path : J:\MS08\Data\2007_04\16\
Data File : 04160706.D
Acq On : 16 Apr 2007 17:33
Operator : LM/SC
Sample : 25ng BFB STD
Misc : S15-04100702
ALS Vial : 3 Sample Multiplier: 1

ICal

Integration File: RTEINT.P

Method : J:\MS08\METHODS\R8041607.M
Title : TO-15 Tekmar AutoCan/HP 6890/HP 5973 MSD
Last Update : Mon Apr 16 11:40:12 2007





AutoFind: Scans 2499, 2500, 2501; Background Corrected with Scan 2488

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	24.9	145002	PASS
75	95	30	66	51.0	296640	PASS
95	95	100	100	100.0	581269	PASS
96	95	5	9	6.7	38677	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	63.5	368938	PASS
175	174	4	9	7.7	28568	PASS
176	174	93	101	97.7	360533	PASS
177	176	5	9	6.7	24106	PASS

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4/17/07

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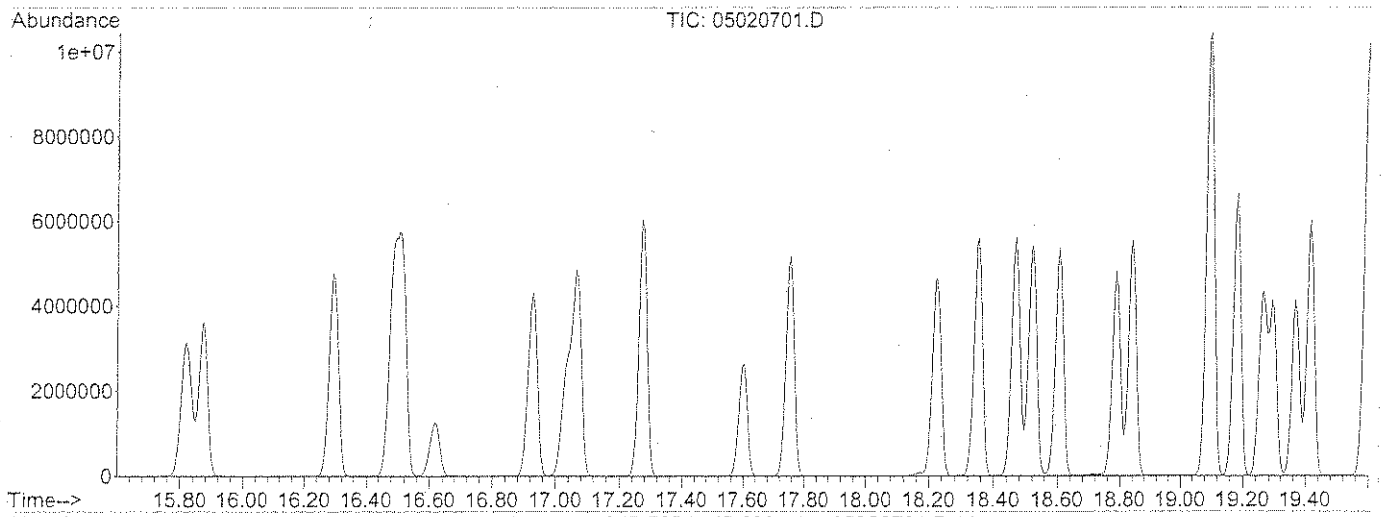
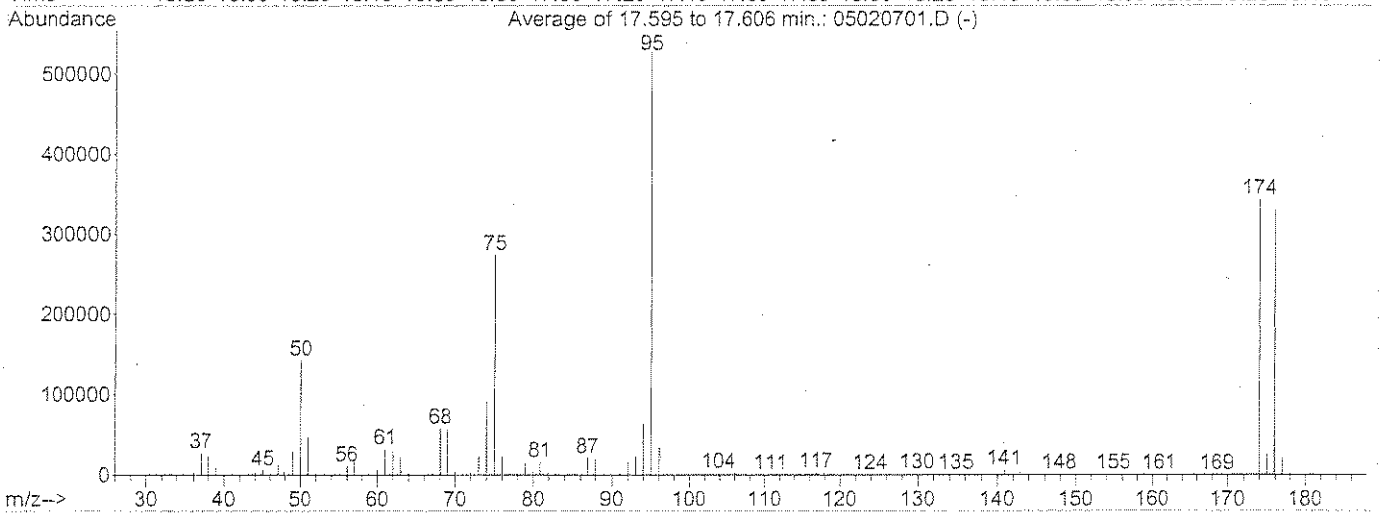
Data Path : J:\MS08\Data\2007_05\02\
Data File : 05020701.D
Acq On : 2 May 2007 9:13
Operator : LM/SC
Sample : 25ng TO-15 CCV STD
Misc : S15-05010701/S15-04260701
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : J:\MS08\METHODS\R8041607.M
Title : TO-15 Tekmar AutoCan/HP 6890/HP 5973 MSD
Last Update : Wed Apr 18 11:04:30 2007





AutoFind: Scans 2500, 2501, 2502; Background Corrected with Scan 2489

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	27.0	142506	PASS
75	95	30	66	51.9	273792	PASS
95	95	100	100	100.0	527616	PASS
96	95	5	9	6.6	34786	PASS
173	174	0.00	2	0.3	1179	PASS
174	95	50	120	64.9	342570	PASS
175	174	4	9	7.3	24898	PASS
176	174	93	101	96.5	330645	PASS
177	176	5	9	6.5	21330	PASS

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5/4/07

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Method Path : J:\MS08\METHODS\
Method File : R8041607.M
Title : TO-15 Tekmar AutoCan/HP 6890/HP 5973 MSD
Last Update : Wed Apr 18 11:04:30 2007
Response Via : Initial Calibration

Calibration Files
0.5 =04160707.D 1 =04160708.D 5 =04160709.D 25 =04160710.D
50 =04160711.D 100 =04160712.D =

		Compound	0.5	1	5	25	50	100	Avg		%RSD
1)	IR	Bromochloromethane (I ----------ISTD----------									
2)	T	Propene	4.817	4.182	3.774	3.595	3.306	3.018	3.782		17.04
3)	T	Dichlorodifluorom	5.854	4.912	4.365	4.229	3.969	3.794	4.521		16.77
4)	T	Chloromethane	8.075	6.985	6.641	6.505	5.523	5.073	6.467		16.54
5)	T	Freon 114	1.763	1.529	1.284	1.272	1.165	1.028	1.340		19.74
6)	T	Vinyl Chloride	5.786	5.143	4.789	4.626	4.227	3.722	4.716		15.20
7)	T	1,3-Butadiene	5.410	4.769	4.573	4.568	4.170	3.652	4.524		13.02
8)	T	Bromomethane	2.315	1.898	1.772	1.784	1.701	1.656	1.854		12.96
9)	T	Chloroethane	2.742	2.505	2.370	2.239	2.013	1.919	2.298		13.39
.0)	T	Ethanol	3.860	3.061	2.701	2.730	2.487	2.346	2.864		19.04
.1)	T	Acetonitrile	7.871	6.819	6.255	6.844	6.208	5.736	6.622		11.18
.2)	T	Acrolein	2.750	2.413	2.286	2.265	2.111	2.035	2.310		10.99
.3)	T	Acetone		4.450	3.974	2.613	2.464	2.379	3.176		30.35
.4)	T	Trichlorofluorome	3.659	3.268	2.993	2.939	2.820	2.760	3.073		10.97
.5)	T	Isopropanol	1.194	1.055	0.905	0.924	0.752	0.662	0.915	E1	21.21
.6)	T	Acrylonitrile	5.793	4.881	4.665	5.017	4.672	4.445	4.912		9.66
.7)	T	1,1-Dichloroethen	2.412	1.993	1.814	1.793	1.697	1.652	1.894		14.80
.8)	T	tert-Butanol	1.090	0.998	0.911	0.814	0.740	0.638	0.865	E1	19.33
.9)	T	Methylene Chlorid	2.659	2.265	2.035	2.006	1.883	1.870	2.120		14.15
0)	T	Allyl Chloride	4.399	3.877	4.011	4.579	4.278	4.055	4.200		6.30
1)	T	Trichlorotrifluor	1.603	1.458	1.345	1.317	1.276	1.267	1.378		9.44
2)	T	Carbon Disulfide	1.087	0.881	0.773	0.751	0.702	0.680	0.812	E1	18.67
3)	T	trans-1,2-Dichlor	5.593	4.848	4.524	4.472	4.199	4.039	4.612		12.05
4)	T	1,1-Dichloroethan	6.108	5.110	4.269	4.252	3.893	3.674	4.551		19.92
5)	T	Methyl tert-Butyl	8.043	7.135	6.578	6.544	6.164	5.973	6.740		11.18
6)	T	Vinyl Acetate	0.529	0.513	0.512	0.485	0.463	0.462	0.494		5.71
7)	T	2-Butanone	1.814	1.603	1.451	1.382	1.296	1.240	1.464		14.55
8)	T	cis-1,2-Dichloroe	5.070	4.438	4.088	4.020	3.763	3.620	4.166		12.60
9)	T	Diisopropyl Ether	2.111	1.832	1.702	1.734	1.618	1.553	1.758		11.24
0)	T	Ethyl Acetate	1.293	1.114	1.053	1.050	0.962	0.903	1.063		12.71
1)	T	n-Hexane	7.327	6.524	6.015	5.996	5.609	5.322	6.132		11.63
2)	T	Chloroform	4.232	3.560	3.203	3.167	2.797	2.634	3.265		17.61
3)	S	1,2-Dichloroethan	2.851	2.837	2.832	2.861	2.727	2.554	2.777		4.30
4)	T	Tetrahydrofuran	1.694	1.491	1.354	1.335	1.127	0.972	1.329		19.29
5)	T	Ethyl tert-Butyl	3.118	2.787	2.578	2.653	2.517	2.468	2.687		8.90
6)	T	1,2-Dichloroethan	5.258	4.532	4.207	4.171	3.963	3.633	4.294		12.99
7)	IR	1,4-Difluorobenzene (----------ISTD----------									
8)	T	1,1,1-Trichloroet	0.939	0.792	0.737	0.737	0.728	0.716	0.775		10.94
9)	T	Isopropyl Acetate	0.459	0.431	0.410	0.414	0.392	0.366	0.412		7.72
0)	T	1-Butanol	0.753	0.591	0.553	0.725	0.690	0.642	0.659		11.82
1)	T	Benzene	2.043	1.774	1.616	1.591	1.506	1.425	1.659		13.36
2)	T	Carbon Tetrachlor	0.403	0.380	0.447	0.535	0.539	0.529	0.472		15.13
3)	T	Cyclohexane	0.832	0.716	0.649	0.640	0.613	0.586	0.673		13.30
4)	T	tert-Amyl Methyl	1.511	1.303	1.232	1.260	1.213	1.159	1.280		9.62
5)	T	1,2-Dichloropropa	0.694	0.622	0.588	0.583	0.557	0.531	0.596		9.56
6)	T	Bromodichlorometh	0.690	0.610	0.570	0.577	0.559	0.548	0.592		8.80
7)	T	Trichloroethene	0.438	0.400	0.350	0.352	0.337	0.324	0.367		11.79
8)	T	1,4-Dioxane	0.380	0.344	0.310	0.314	0.300	0.284	0.322		10.72
9)	T	Isooctane	3.704	3.179	2.973	3.010	2.827	2.489	3.030		13.31
0)	T	Methyl Methacryla	0.189	0.153	0.150	0.162	0.157	0.156	0.161		8.77
1)	T	n-Heptane	0.497	0.465	0.430	0.429	0.409	0.386	0.436		9.07
2)	T	cis-1,3-Dichlorop	0.857	0.753	0.708	0.706	0.670	0.638	0.722		10.60
3)	T	4-Methyl-2-pentan	0.735	0.680	0.649	0.634	0.593	0.551	0.640		10.07
4)	T	trans-1,3-Dichlor	0.761	0.690	0.646	0.670	0.649	0.630	0.674		7.01
5)	T	1,1,2-Trichloroet	0.480	0.440	0.398	0.395	0.384	0.372	0.412		9.90
6)	I	Chlorobenzene-d5 (IS3 ----------ISTD----------									
7)	S	Toluene-d8 (SS2)	2.101	2.116	2.129	2.132	2.150	2.155	2.131		0.95

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Method Path : J:\MS08\METHODS\
Method File : R8041607.M
Title : TO-15 Tekmar AutoCan/HP 6890/HP 5973 MSD
Last Update : Wed Apr 18 11:04:30 2007
Response Via : Initial Calibration

Calibration Files
0.5 =04160707.D 1 =04160708.D 5 =04160709.D 25 =04160710.D
50 =04160711.D 100 =04160712.D =

		Compound	0.5	1	5	25	50	100	Avg	%RSD
58)	T	Toluene	3.522	3.047	2.837	2.814	2.600	2.450	2.878	13.08
59)	T	2-Hexanone	3.118	2.917	2.819	2.738	2.422	2.153	2.695	13.01
60)	T	Dibromochlorometh	0.784	0.690	0.662	0.686	0.649	0.637	0.684	7.74
61)	T	1,2-Dibromoethane	0.843	0.737	0.699	0.691	0.655	0.638	0.710	10.34
62)	T	Butyl Acetate	3.247	3.114	2.966	3.131	2.760	2.456	2.946	9.93
63)	T	n-Octane	1.237	1.132	1.046	1.071	0.976	0.906	1.061	10.96
64)	T	Tetrachloroethene	0.782	0.670	0.651	0.633	0.608	0.587	0.655	10.50
65)	T	Chlorobenzene	2.073	1.800	1.673	1.652	1.532	1.453	1.697	12.95
66)	T	Ethylbenzene	4.100	3.592	3.371	3.333	3.078	2.900	3.396	12.39
67)	T	m- & p-Xylene	2.729	2.387	2.219	2.210	2.056	1.923	2.254	12.47
68)	T	Bromoform	0.529	0.461	0.440	0.460	0.446	0.442	0.463	7.30
69)	T	Styrene	2.197	2.009	1.852	1.843	1.710	1.630	1.873	10.96
70)	T	o-Xylene	3.005	2.542	2.424	2.397	2.245	2.141	2.459	12.29
71)	T	n-Nonane	2.928	2.598	2.461	2.488	2.201	1.905	2.430	14.36
72)	T	1,1,2,2-Tetrachlo	1.200	1.103	1.040	1.042	0.973	0.927	1.047	9.21
73)	S	Bromofluorobenzen	0.590	0.589	0.588	0.593	0.599	0.601	0.593	0.95
74)	T	Cumene	3.382	2.999	2.794	2.878	2.662	2.505	2.870	10.58
75)	T	alpha-Pinene	1.977	1.798	1.706	1.735	1.624	1.536	1.729	8.78
76)	T	n-Propylbenzene	4.857	4.222	3.976	4.057	3.734	3.336	4.030	12.61
77)	T	3-Ethyltoluene	3.694	3.195	2.989	3.103	2.958	2.782	3.120	10.07
78)	T	4-Ethyltoluene	3.438	3.022	2.880	2.855	2.613	2.456	2.877	11.87
79)	T	1,3,5-Trimethylbe	3.089	2.707	2.574	2.547	2.419	2.315	2.609	10.40
80)	T	alpha-Methylstyre	1.534	1.352	1.337	1.385	1.293	1.237	1.356	7.46
81)	T	2-Ethyltoluene	3.700	3.223	3.018	3.156	2.941	2.773	3.135	10.18
82)	T	1,2,4-Trimethylbe	3.006	2.652	2.504	2.445	2.303	2.208	2.520	11.28
83)	T	n-Decane	2.692	2.332	2.109	2.201	2.055	1.922	2.218	12.16
84)	T	Benzyl Chloride	2.668	2.477	2.574	2.684	2.574	2.420	2.566	4.04
85)	T	1,3-Dichlorobenze	1.525	1.355	1.264	1.286	1.209	1.158	1.300	9.95
86)	T	1,4-Dichlorobenze	1.513	1.316	1.243	1.272	1.184	1.143	1.279	10.18
87)	T	sec-Butylbenzene	3.973	3.445	3.268	3.380	3.123	2.857	3.341	11.19
88)	T	p-Isopropyltoluen	3.163	2.747	2.606	2.682	2.485	2.306	2.665	10.87
89)	T	1,2,3-Trimethylbe	2.853	2.491	2.315	2.412	2.279	2.179	2.422	9.80
90)	T	1,2-Dichlorobenze	1.409	1.258	1.192	1.176	1.091	1.037	1.194	10.98
91)	T	d-Limonene	1.301	1.208	1.138	1.156	1.071	1.010	1.147	8.90
92)	T	1,2-Dibromo-3-Chl	0.407	0.393	0.386	0.438	0.420	0.408	0.409	4.65
93)	T	n-Undecane	1.935	1.788	1.521	1.591	1.480	1.395	1.618	12.61
94)	T	1,2,4-Trichlorobe	0.231	0.232	0.228	0.233	0.224	0.217	0.227	2.72
95)	T	Naphthalene	1.866	1.984	1.898	2.182	2.124	2.050	2.017	6.18
96)	T	n-Dodecane	1.702	1.740	1.325	1.346	1.215	1.082	1.402	18.91
97)	T	Hexachloro-1,3-bu	0.631	0.622	0.584	0.591	0.580	0.569	0.596	4.17

#) = Out of Range

Data Path : J:\MS08\Data\2007_05\02\
Data File : 05020701.D
Acq On : 2 May 2007 9:13
Operator : LM/SC
Sample : 25ng TO-15 CCV STD
Misc : S15-05010701/S15-04260701
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 09:51:42 2007
Quant Method : J:\MS08\METHODS\R8041607.M
Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5973 MSD
QLast Update : Wed Apr 18 11:04:30 2007
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	IR	Bromochloromethane (IS1)	1.000	1.000	0.0	104	0.00
2	T	Propene	3.782	3.575	5.5	104	0.00
3	T	Dichlorodifluoromethane	4.521	4.200	7.1	104	0.00
4	T	Chloromethane	6.467	6.439	0.4	103	0.00
5	T	Freon 114	1.340	1.111	17.1	91	0.00
6	T	Vinyl Chloride	4.716	4.599	2.5	104	0.00
7	T	1,3-Butadiene	4.524	4.634	-2.4	106	0.00
8	T	Bromomethane	1.854	1.950	-5.2	114	0.00
9	T	Chloroethane	2.298	2.165	5.8	101	0.00
.0	T	Ethanol	2.864	2.575	10.1	98	0.01
.1	T	Acetonitrile	6.622	6.690	-1.0	102	0.01
.2	T	Acrolein	2.310	2.264	2.0	104	0.00
.3	T	Acetone	3.176	2.721	14.3	109	0.01
.4	T	Trichlorofluoromethane	3.073	2.712	11.7	96	0.00
.5	T	Isopropanol	9.152	7.978	12.8	90	0.01
.6	T	Acrylonitrile	4.912	4.985	-1.5	104	0.00
.7	T	1,1-Dichloroethene	1.894	1.804	4.8	105	0.00
.8	T	tert-Butanol	8.651	7.845	9.3	101	0.00
.9	T	Methylene Chloride	2.120	2.027	4.4	105	0.00
.0	T	Allyl Chloride	4.200	4.485	-6.8	102	0.00
.1	T	Trichlorotrifluoroethane	1.378	1.328	3.6	105	0.00
2	T	Carbon Disulfide	8.124	7.715	5.0	107	0.00
3	T	trans-1,2-Dichloroethene	4.612	4.351	5.7	101	0.00
4	T	1,1-Dichloroethane	4.551	4.120	9.5	101	0.00
5	T	Methyl tert-Butyl Ether	6.740	6.227	7.6	99	0.00
6	T	Vinyl Acetate	0.494	0.516	-4.5	111	0.00
7	T	2-Butanone	1.464	1.346	8.1	102	0.00
8	T	cis-1,2-Dichloroethene	4.166	3.938	5.5	102	0.00
9	T	Diisopropyl Ether	1.758	1.660	5.6	100	0.00
0	T	Ethyl Acetate	1.063	1.053	0.9	105	0.00
1	T	n-Hexane	6.132	5.887	4.0	102	0.00
2	T	Chloroform	3.265	2.800	14.2	92	0.00
3	S	1,2-Dichloroethane-d4(SS1)	2.777	2.564	7.7	93	0.00
4	T	Tetrahydrofuran	1.329	1.171	11.9	91	0.00
5	T	Ethyl tert-Butyl Ether	2.687	2.507	6.7	99	0.00
6	T	1,2-Dichloroethane	4.294	4.029	6.2	101	0.00
7	IR	1,4-Difluorobenzene (IS2)	1.000	1.000	0.0	102	0.00
8	T	1,1,1-Trichloroethane	0.775	0.732	5.5	102	0.00
9	T	Isopropyl Acetate	0.412	0.416	-1.0	103	0.00
0	T	1-Butanol	0.659	0.533	19.1	75	0.00
1	T	Benzene	1.659	1.596	3.8	103	0.00
2	T	Carbon Tetrachloride	0.472	0.536	-13.6	103	0.00
3	T	Cyclohexane	0.673	0.627	6.8	100	0.00
4	T	tert-Amyl Methyl Ether	1.280	1.224	4.4	99	0.00
5	T	1,2-Dichloropropane	0.596	0.592	0.7	104	0.00
6	T	Bromodichloromethane	0.592	0.591	0.2	105	0.00
7	T	Trichloroethene	0.367	0.357	2.7	104	0.00
8	T	1,4-Dioxane	0.322	0.301	6.5	98	0.00
9	T	Isooctane	3.030	2.984	1.5	101	0.00
0	T	Methyl Methacrylate	0.161	0.156	3.1	99	0.00
1	T	n-Heptane	0.436	0.422	3.2	101	0.00

LM 5/4/07
LM 5/4/07

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Data Path : J:\MS08\Data\2007_05\02\
Data File : 05020701.D
Acq On : 2 May 2007 9:13
Operator : LM/SC
Sample : 25ng TO-15 CCV STD
Misc : S15-05010701/S15-04260701
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 09:51:42 2007
Quant Method : J:\MS08\METHODS\R8041607.M
Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5973 MSD
QLast Update : Wed Apr 18 11:04:30 2007
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
52	T	cis-1,3-Dichloropropene	0.722	0.702	2.8	102	0.00
53	T	4-Methyl-2-pentanone	0.640	0.617	3.6	100	0.00
54	T	trans-1,3-Dichloropropene	0.674	0.662	1.8	101	0.00
55	T	1,1,2-Trichloroethane	0.412	0.394	4.4	102	0.00
56	I	Chlorobenzene-d5 (IS3)	1.000	1.000	0.0	98	0.00
57	S	Toluene-d8 (SS2)	2.131	2.183	-2.4	101	0.00
58	T	Toluene	2.878	2.869	0.3	100	0.00
59	T	2-Hexanone	2.695	2.626	2.6	94	0.00
60	T	Dibromochloromethane	0.684	0.707	-3.4	101	0.00
61	T	1,2-Dibromoethane	0.710	0.725	-2.1	103	0.00
62	T	Butyl Acetate	2.946	2.880	2.2	90	0.00
63	T	n-Octane	1.061	1.085	-2.3	100	0.00
64	T	Tetrachloroethene	0.655	0.650	0.8	101	0.00
65	T	Chlorobenzene	1.697	1.681	0.9	100	0.00
66	T	Ethylbenzene	3.396	3.414	-0.5	101	0.00
67	T	m- & p-Xylene	2.254	2.244	0.4	100	0.00
68	T	Bromoform	0.463	0.480	-3.7	103	0.00
69	T	Styrene	1.873	1.795	4.2	96	0.00
70	T	o-Xylene	2.459	2.435	1.0	100	0.00
71	T	n-Nonane	2.430	2.492	-2.6	98	0.00
72	T	1,1,2,2-Tetrachloroethane	1.047	1.071	-2.3	101	0.00
73	S	Bromofluorobenzene (SS3)	0.593	0.596	-0.5	99	0.00
74	T	Cumene	2.870	2.871	-0.0	98	0.00
75	T	alpha-Pinene	1.729	1.702	1.6	96	0.00
76	T	n-Propylbenzene	4.030	4.129	-2.5	100	0.00
77	T	3-Ethyltoluene	3.120	3.129	-0.3	99	0.00
78	T	4-Ethyltoluene	2.877	2.828	1.7	97	0.00
79	T	1,3,5-Trimethylbenzene	2.609	2.549	2.3	98	0.00
80	T	alpha-Methylstyrene	1.356	1.243	8.3	88	0.00
81	T	2-Ethyltoluene	3.135	3.141	-0.2	98	0.00
82	T	1,2,4-Trimethylbenzene	2.520	2.492	1.1	100	0.00
83	T	n-Decane	2.218	2.383	-7.4	106	0.00
84	T	Benzyl Chloride	2.566	2.661	-3.7	97	0.00
85	T	1,3-Dichlorobenzene	1.300	1.303	-0.2	100	0.00
86	T	1,4-Dichlorobenzene	1.279	1.270	0.7	98	0.00
87	T	sec-Butylbenzene	3.341	3.364	-0.7	98	0.00
88	T	p-Isopropyltoluene	2.665	2.691	-1.0	99	0.00
89	T	1,2,3-Trimethylbenzene	2.422	2.455	-1.4	100	0.00
90	T	1,2-Dichlorobenzene	1.194	1.199	-0.4	100	0.00
91	T	d-Limonene	1.147	1.084	5.5	92	0.00
92	T	1,2-Dibromo-3-Chloropropane	0.409	0.426	-4.2	96	0.00
93	T	n-Undecane	1.618	1.708	-5.6	106	0.00
94	T	1,2,4-Trichlorobenzene	0.227	0.240	-5.7	101	0.00
95	T	Naphthalene	2.017	2.211	-9.6	100	0.00
96	T	n-Dodecane	1.402	1.113	20.6	81	0.00
97	T	Hexachloro-1,3-butadiene	0.596	0.558	6.4	93	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

5/4/07
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Data Path : J:\MS08\Data\2007_05\02\
Data File : 05020703.D
Acq On : 2 May 2007 11:11
Operator : LM/SC
Sample : 1ng TO-15 CRQL STD
Misc : S15-05010701/S15-04190704
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 11:50:51 2007
Quant Method : J:\MS08\METHODS\R8041607.M
Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5973 MSD
QLast Update : Wed Apr 18 11:04:30 2007
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	IR	Bromochloromethane (IS1)	1.000	1.000	0.0	100	-0.03
2	T	Propene	3.782	4.021	-6.3	96	0.02
3	T	Dichlorodifluoromethane	4.521	4.757	-5.2	97	0.02
4	T	Chloromethane	6.467	6.693	-3.5	96	0.00
5	T	Freon 114	1.340	1.205	10.1	79	0.01
6	T	Vinyl Chloride	4.716	5.129	-8.8	100	0.00
7	T	1,3-Butadiene	4.524	4.817	-6.5	101	0.00
8	T	Bromomethane	1.854	2.038	-9.9	107	0.00
9	T	Chloroethane	2.298	2.655	-15.5	106	-0.01
.0	T	Ethanol	2.864	2.675	6.6	87	-0.03
.1	T	Acetonitrile	6.622	6.943	-4.8	102	-0.02
.2	T	Acrolein	2.310	2.243	2.9	93	0.00
.3	T	Acetone	3.176	3.756	-18.3	84	-0.01
.4	T	Trichlorofluoromethane	3.073	3.010	2.1	92	-0.01
.5	T	Isopropanol	9.152	9.983	-9.1	95	-0.03
.6	T	Acrylonitrile	4.912	4.941	-0.6	101	-0.02
.7	T	1,1-Dichloroethene	1.894	2.033	-7.3	102	0.00
8	T	tert-Butanol	8.651	8.064	6.8	81	-0.02
.9	T	Methylene Chloride	2.120	2.371	-11.8	105	-0.03
0	T	Allyl Chloride	4.200	4.236	-0.9	109	-0.02
1	T	Trichlorotrifluoroethane	1.378	1.344	2.5	92	0.00
2	T	Carbon Disulfide	8.124	9.833	-21.0	112	0.00
3	T	trans-1,2-Dichloroethene	4.612	4.905	-6.4	101	-0.03
4	T	1,1-Dichloroethane	4.551	4.698	-3.2	92	-0.02
5	T	Methyl tert-Butyl Ether	6.740	6.482	3.8	91	0.00
6	T	Vinyl Acetate	0.494	0.549	-11.1	107	-0.02
7	T	2-Butanone	1.464	1.507	-2.9	94	-0.02
8	T	cis-1,2-Dichloroethene	4.166	4.482	-7.6	101	-0.03
9	T	Diisopropyl Ether	1.758	1.791	-1.9	98	-0.01
0	T	Ethyl Acetate	1.063	1.152	-8.4	103	-0.01
1	T	n-Hexane	6.132	6.395	-4.3	98	0.00
2	T	Chloroform	3.265	3.425	-4.9	96	-0.03
3	S	1,2-Dichloroethane-d4(SS1)	2.777	2.807	-1.1	99	-0.02
4	T	Tetrahydrofuran	1.329	1.427	-7.4	96	-0.01
5	T	Ethyl tert-Butyl Ether	2.687	2.460	8.4	88	0.00
6	T	1,2-Dichloroethane	4.294	4.333	-0.9	96	-0.02
7	IR	1,4-Difluorobenzene (IS2)	1.000	1.000	0.0	99	-0.01
8	T	1,1,1-Trichloroethane	0.775	0.745	3.9	93	-0.01
9	T	Isopropyl Acetate	0.412	0.432	-4.9	99	-0.01
0	T	1-Butanol	0.659	0.535	18.8	89	0.00
1	T	Benzene	1.659	1.739	-4.8	97	-0.01
2	T	Carbon Tetrachloride	0.472	0.414	12.3	108	-0.02
3	T	Cyclohexane	0.673	0.676	-0.4	93	-0.02
4	T	tert-Amyl Methyl Ether	1.280	1.188	7.2	90	-0.01
5	T	1,2-Dichloropropane	0.596	0.621	-4.2	98	-0.01
6	T	Bromodichloromethane	0.592	0.579	2.2	94	-0.01
7	T	Trichloroethene	0.367	0.365	0.5	90	0.00
8	T	1,4-Dioxane	0.322	0.306	5.0	88	0.00
9	T	Isooctane	3.030	3.374	-11.4	105	-0.01
0	T	Methyl Methacrylate	0.161	0.156	3.1	100	-0.01
1	T	n-Heptane	0.436	0.462	-6.0	98	-0.01

LM 5/4/07

5/4/07

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Data Path : J:\MS08\Data\2007_05\02\
Data File : 05020703.D
Acq On : 2 May 2007 11:11
Operator : LM/SC
Sample : 1ng TO-15 CRQL STD
Misc : S15-05010701/S15-04190704
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 11:50:51 2007
Quant Method : J:\MS08\METHODS\R8041607.M
Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5973 MSD
QLast Update : Wed Apr 18 11:04:30 2007
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
52	T	cis-1,3-Dichloropropene	0.722	0.718	0.6	94	0.00
53	T	4-Methyl-2-pentanone	0.640	0.704	-10.0	102	-0.01
54	T	trans-1,3-Dichloropropene	0.674	0.616	8.6	88	-0.01
55	T	1,1,2-Trichloroethane	0.412	0.406	1.5	91	0.00
56	I	Chlorobenzene-d5 (IS3)	1.000	1.000	0.0	94	0.00
57	S	Toluene-d8 (SS2)	2.131	2.192	-2.9	97	0.00
58	T	Toluene	2.878	3.259	-13.2	101	0.00
59	T	2-Hexanone	2.695	2.935	-8.9	95	0.00
60	T	Dibromochloromethane	0.684	0.677	1.0	92	0.00
61	T	1,2-Dibromoethane	0.710	0.742	-4.5	95	-0.01
62	T	Butyl Acetate	2.946	3.153	-7.0	95	0.00
63	T	n-Octane	1.061	1.255	-18.3	104	0.00
64	T	Tetrachloroethene	0.655	0.708	-8.1	99	0.00
65	T	Chlorobenzene	1.697	1.897	-11.8	99	0.00
66	T	Ethylbenzene	3.396	3.819	-12.5	100	0.00
67	T	m- & p-Xylene	2.254	2.530	-12.2	100	-0.02
68	T	Bromoform	0.463	0.432	6.7	88	-0.01
69	T	Styrene	1.873	1.908	-1.9	89	0.00
70	T	o-Xylene	2.459	2.691	-9.4	100	0.00
71	T	n-Nonane	2.430	2.802	-15.3	101	0.00
72	T	1,1,2,2-Tetrachloroethane	1.047	1.208	-15.4	103	0.00
73	S	Bromofluorobenzene (SS3)	0.593	0.575	3.0	92	0.00
74	T	Cumene	2.870	3.204	-11.6	100	0.00
75	T	alpha-Pinene	1.729	1.718	0.6	90	0.00
76	T	n-Propylbenzene	4.030	4.520	-12.2	101	0.00
77	T	3-Ethyltoluene	3.120	3.316	-6.3	98	0.00
78	T	4-Ethyltoluene	2.877	3.108	-8.0	97	0.00
79	T	1,3,5-Trimethylbenzene	2.609	2.718	-4.2	94	0.00
80	T	alpha-Methylstyrene	1.356	1.246	8.1	87	0.00
81	T	2-Ethyltoluene	3.135	3.458	-10.3	101	0.00
82	T	1,2,4-Trimethylbenzene	2.520	2.641	-4.8	94	0.00
83	T	n-Decane	2.218	2.546	-14.8	103	0.00
84	T	Benzyl Chloride	2.566	2.395	6.7	91	-0.01
85	T	1,3-Dichlorobenzene	1.300	1.385	-6.5	96	-0.01
86	T	1,4-Dichlorobenzene	1.279	1.338	-4.6	95	0.00
87	T	sec-Butylbenzene	3.341	3.712	-11.1	101	0.00
88	T	p-Isopropyltoluene	2.665	2.911	-9.2	100	0.00
89	T	1,2,3-Trimethylbenzene	2.422	2.601	-7.4	98	0.00
90	T	1,2-Dichlorobenzene	1.194	1.302	-9.0	97	0.00
91	T	d-Limonene	1.147	1.084	5.5	84	0.00
92	T	1,2-Dibromo-3-Chloropropane	0.409	0.358	12.5	86	0.00
93	T	n-Undecane	1.618	1.844	-14.0	97	0.00
94	T	1,2,4-Trichlorobenzene	0.227	0.223	1.8	90	0.00
95	T	Naphthalene	2.017	1.906	5.5	90	0.00
96	T	n-Dodecane	1.402	0.059	95.8#	3#	-0.09
97	T	Hexachloro-1,3-butadiene	0.596	0.538	9.7	81	0.00

LM 5/4/07

5/4/07

(#) = Out of Range SPCC's out = 0 CCC's out = 0

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Data Path : J:\MS08\Data\2007_05\02\
Data File : 05020710.D
Acq On : 2 May 2007 16:53
Operator : LM/SC
Sample : 25ng TO-15 Closing CCV STD
Misc : S15-05010701/S15-04260701
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 17:27:26 2007
Quant Method : J:\MS08\METHODS\R8041607.M
Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5973 MSD
QLast Update : Wed Apr 18 11:04:30 2007
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	IR	Bromochloromethane (IS1)	1.000	1.000	0.0	113	0.00
2	T	Propene	3.782	3.044	19.5	96	0.00
3	T	Dichlorodifluoromethane	4.521	4.034	10.8	108	0.00
4	T	Chloromethane	6.467	5.453	15.7	95	0.00
5	T	Freon 114	1.340	1.118	16.6	99	0.00
6	T	Vinyl Chloride	4.716	4.250	9.9	104	0.00
7	T	1,3-Butadiene	4.524	4.082	9.8	101	0.00
8	T	Bromomethane	1.854	1.830	1.3	116	0.00
9	T	Chloroethane	2.298	2.048	10.9	104	0.00
.0	T	Ethanol	2.864	2.327	18.7	96	0.00
.1	T	Acetonitrile	6.622	5.806	12.3	96	0.00
.2	T	Acrolein	2.310	2.065	10.6	103	0.00
.3	T	Acetone	3.176	2.582	18.7	112	0.00
.4	T	Trichlorofluoromethane	3.073	2.706	11.9	104	0.00
.5	T	Isopropanol	9.152	6.909	24.5	85	0.00
.6	T	Acrylonitrile	4.912	4.532	7.7	102	0.00
.7	T	1,1-Dichloroethene	1.894	1.746	7.8	110	0.00
.8	T	tert-Butanol	8.651	7.162	17.2	100	0.00
.9	T	Methylene Chloride	2.120	1.941	8.4	109	0.00
0	T	Allyl Chloride	4.200	3.904	7.0	96	0.00
1	T	Trichlorotrifluoroethane	1.378	1.344	2.5	115	0.00
2	T	Carbon Disulfide	8.124	7.193	11.5	108	0.00
3	T	trans-1,2-Dichloroethene	4.612	4.128	10.5	104	0.00
4	T	1,1-Dichloroethane	4.551	3.873	14.9	103	0.00
5	T	Methyl tert-Butyl Ether	6.740	6.094	9.6	105	0.00
6	T	Vinyl Acetate	0.494	0.476	3.6	111	0.00
7	T	2-Butanone	1.464	1.264	13.7	103	0.00
8	T	cis-1,2-Dichloroethene	4.166	3.696	11.3	104	0.00
9	T	Diisopropyl Ether	1.758	1.614	8.2	105	0.00
0	T	Ethyl Acetate	1.063	0.981	7.7	106	0.00
1	T	n-Hexane	6.132	5.474	10.7	103	0.00
2	T	Chloroform	3.265	2.708	17.1	97	0.00
3	S	1,2-Dichloroethane-d4(SS1)	2.777	2.525	9.1	100	0.00
4	T	Tetrahydrofuran	1.329	1.110	16.5	94	0.00
5	T	Ethyl tert-Butyl Ether	2.687	2.487	7.4	106	0.00
6	T	1,2-Dichloroethane	4.294	3.853	10.3	105	0.00
7	IR	1,4-Difluorobenzene (IS2)	1.000	1.000	0.0	110	0.00
8	T	1,1,1-Trichloroethane	0.775	0.738	4.8	110	0.00
9	T	Isopropyl Acetate	0.412	0.391	5.1	104	0.00
0	T	1-Butanol	0.659	0.512	22.3	78	0.00
1	T	Benzene	1.659	1.535	7.5	106	0.00
2	T	Carbon Tetrachloride	0.472	0.548	-16.1	113	0.00
3	T	Cyclohexane	0.673	0.618	8.2	106	0.00
4	T	tert-Amyl Methyl Ether	1.280	1.191	7.0	104	0.00
5	T	1,2-Dichloropropane	0.596	0.562	5.7	106	0.00
6	T	Bromodichloromethane	0.592	0.579	2.2	110	0.00
7	T	Trichloroethene	0.367	0.358	2.5	112	0.00
8	T	1,4-Dioxane	0.322	0.292	9.3	102	0.00
9	T	Isooctane	3.030	2.825	6.8	103	0.00
0	T	Methyl Methacrylate	0.161	0.155	3.7	105	0.00
1	T	n-Heptane	0.436	0.405	7.1	104	0.00

LM 5/4/07

LS 5/4/07

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Data Path : J:\MS08\Data\2007_05\02\
Data File : 05020710.D
Acq On : 2 May 2007 16:53
Operator : LM/SC
Sample : 25ng TO-15 Closing CCV STD
Misc : S15-05010701/S15-04260701
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 02 17:27:26 2007
Quant Method : J:\MS08\METHODS\R8041607.M
Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5973 MSD
QLast Update : Wed Apr 18 11:04:30 2007
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
52	T	cis-1,3-Dichloropropene	0.722	0.681	5.7	106	0.00
53	T	4-Methyl-2-pentanone	0.640	0.584	8.8	101	0.00
54	T	trans-1,3-Dichloropropene	0.674	0.653	3.1	107	0.00
55	T	1,1,2-Trichloroethane	0.412	0.392	4.9	109	0.00
56	I	Chlorobenzene-d5 (IS3)	1.000	1.000	0.0	107	0.00
57	S	Toluene-d8 (SS2)	2.131	2.174	-2.0	109	0.00
58	T	Toluene	2.878	2.813	2.3	107	0.00
59	T	2-Hexanone	2.695	2.320	13.9	91	0.00
60	T	Dibromochloromethane	0.684	0.711	-3.9	111	0.00
61	T	1,2-Dibromoethane	0.710	0.715	-0.7	111	0.00
62	T	Butyl Acetate	2.946	2.563	13.0	87	0.00
63	T	n-Octane	1.061	1.022	3.7	102	0.00
64	T	Tetrachloroethene	0.655	0.720	-9.9	122	0.00
65	T	Chlorobenzene	1.697	1.654	2.5	107	0.00
66	T	Ethylbenzene	3.396	3.333	1.9	107	0.00
67	T	m- & p-Xylene	2.254	2.212	1.9	107	0.00
68	T	Bromoform	0.463	0.481	-3.9	112	0.00
69	T	Styrene	1.873	1.766	5.7	102	0.00
70	T	o-Xylene	2.459	2.403	2.3	107	0.00
71	T	n-Nonane	2.430	2.219	8.7	95	0.00
72	T	1,1,2,2-Tetrachloroethane	1.047	1.028	1.8	105	0.00
73	S	Bromofluorobenzene (SS3)	0.593	0.616	-3.9	111	0.00
74	T	Cumene	2.870	2.860	0.3	106	0.00
75	T	alpha-Pinene	1.729	1.677	3.0	103	0.00
76	T	n-Propylbenzene	4.030	4.029	0.0	106	0.00
77	T	3-Ethyltoluene	3.120	3.095	0.8	107	0.00
78	T	4-Ethyltoluene	2.877	2.826	1.8	106	0.00
79	T	1,3,5-Trimethylbenzene	2.609	2.533	2.9	106	0.00
80	T	alpha-Methylstyrene	1.356	1.227	9.5	95	0.00
81	T	2-Ethyltoluene	3.135	3.129	0.2	106	0.00
82	T	1,2,4-Trimethylbenzene	2.520	2.482	1.5	108	0.00
83	T	n-Decane	2.218	2.228	-0.5	108	0.00
84	T	Benzyl Chloride	2.566	2.615	-1.9	104	0.00
85	T	1,3-Dichlorobenzene	1.300	1.287	1.0	107	0.00
86	T	1,4-Dichlorobenzene	1.279	1.262	1.3	106	0.00
87	T	sec-Butylbenzene	3.341	3.312	0.9	105	0.00
88	T	p-Isopropyltoluene	2.665	2.656	0.3	106	0.00
89	T	1,2,3-Trimethylbenzene	2.422	2.415	0.3	107	0.00
90	T	1,2-Dichlorobenzene	1.194	1.186	0.7	108	0.00
91	T	d-Limonene	1.147	1.051	8.4	97	0.00
92	T	1,2-Dibromo-3-Chloropropane	0.409	0.434	-6.1	106	0.00
93	T	n-Undecane	1.618	1.612	0.4	108	0.00
94	T	1,2,4-Trichlorobenzene	0.227	0.241	-6.2	111	0.00
95	T	Naphthalene	2.017	2.184	-8.3	107	0.00
96	T	n-Dodecane	1.402	1.070	23.7	85	0.00
97	T	Hexachloro-1,3-butadiene	0.596	0.575	3.5	104	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

1m 5/4/07

5/4/07

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: TRC
Client Project ID: WDI

CAS Project ID: P2701193

Internal Standard Area and RT Summary

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister(s)
Test Notes:

Lab File ID: 05020701.D
Date Analyzed: 05/02/07
Time Analyzed: 09:13

		IS1 (BCM) AREA #	RT #	IS2 (DFB) AREA #	RT #	IS3 (CBZ) AREA #	RT #
	24 Hour Standard	437863	9.07	2114796	11.00	1216809	15.82
	Upper Limit	613008	9.40	2960714	11.33	1703533	16.15
	Lower Limit	262718	8.74	1268878	10.67	730085	15.49
	Client Sample ID						
01	Method Blank	432714	9.04	2085021	10.98	1187679	15.81
02	Lab Control Sample	420154	9.07	2030376	11.00	1176379	15.82
03	Duplicate Lab Control Sample	432680	9.07	2093369	11.00	1216915	15.82
04	WDI-GTS-IN-4-23-07	453602	9.05	2159324	10.99	1267877	15.82
05	WDI-GTS-IN-4-23-07 (Lab Duplicate)	464745	9.06	2211677	10.99	1325629	15.82
06	WDI-GTS-OUT-4-23-07	475315	9.05	2251584	10.99	1355605	15.81
07							
08							
09							
10							
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12							
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14							
15							
16							
17							
18							
19							
20							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = 140% of internal standard area
AREA LOWER LIMIT = 60% of internal standard area
RT UPPER LIMIT = 0.33 minutes of internal standard RT
RT LOWER LIMIT = 0.33 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

Verified by: RG Date: 5/9/07

	Date/Time	File Name	Sample ID	Misc Info	Operator	Vial	Comment
17	5/1/07 21:24	05010717.D	P2701217-001 (1000ml)	[redacted].9,3.5)	LM/SC	7	
18	5/1/07 22:06	05010718.D	P2701217-001DUP (1000ml)	[redacted]1.9,3.5)	LM/SC	7	[illegible]
19	5/1/07 22:46	05010719.D	P2701217-002 (1000ml)	[redacted](-2.7,3.6)	LM/SC	8	
20	5/1/07 23:27	05010720.D	P2701217-003 (1000ml)	[redacted]2.3,3.5)	LM/SC	9	
21	5/2/07 0:08	05010721.D	P2701217-004 (1000ml)	[redacted]1.5,3.9)	LM/SC	10	
22	5/2/07 0:48	05010722.D	P2701217-005 (1000ml)	[redacted].6,3.5)	LM/SC	11	
23	5/2/07 1:29	05010723.D	P2701218-001 (1000ml)	[redacted].7,3.8)	LM/SC	12	
24	5/2/07 2:10	05010724.D	P2701218-002 (1000ml)	[redacted]-4.9,3.7)	LM/SC	13	
25	5/2/07 2:51	05010725.D	P2701218-003 (1000ml)	[redacted].6,3.6)	LM/SC	14	
26	5/2/07 3:31	05010726.D	P2701218-004 (1000ml)	[redacted].9,3.7)	LM/SC	15	
27	5/2/07 4:12	05010727.D	P2701218-005 (1000ml)	[redacted].1,3.6)	LM/SC	16	
28	5/2/07 4:54	05010728.D	P2701218-005 DUP (1000ml)	[redacted]3.1,3.6)	LM/SC	16	[illegible]

05010701 [illegible]

1	5/2/07 9:13	05020701.D	25ng TO-15 CCV STD	S15-04100702/S15-04260701	LM/SC	1	Passed
2	5/2/07 10:27	05020702.D	TO-15 Method Blank (1000ml)	S15-04100702 [illegible]	LM/SC	4	Passed
3	5/2/07 11:11	05020703.D	1ng TO-15 CRQL STD	S15-04100702/S15-04190704	LM/SC	1	Passed
4	5/2/07 11:55	05020704.D	25ng TO-15 LCS STD	S15-04100702/S15-04300705	LM/SC	2	Passed
5	5/2/07 12:38	05020705.D	25ng TO-15 LCSD STD	S15-04100702/S15-04300705	LM/SC	2	Passed
6	5/2/07 14:01	05020706.D	P2701193-001 (1000ml)	TRC WDI-GTS-IN-4-23-07 (-2.1,3.6)	LM/SC	5	
7	5/2/07 14:45	05020707.D	P2701193-001 DUP (1000ml)	TRC WDI-GTS-IN-4-23-07 (-2.1,3.6)	LM/SC	5	Passed
8	5/2/07 15:27	05020708.D	P2701193-002 (1000ml)	TRC WDI-GTS-OUT-4-23-07 (-2.7,3.6)	LM/SC	6	
9	5/2/07 16:11	05020709.D	P2701205-001 (0.75ml)	[redacted].4,3.5)	LM/SC	1	
10	5/2/07 16:53	05020710.D	25ng TO-15 CCV STD	S15-04100702/S15-04260701	LM/SC	1	Passed
11	5/2/07 17:33	05020711.D	P2701115-003 Dil (10ml)	[redacted]0.2,3.6)	LM/SC	1	
12	5/2/07 18:09	05020712.D	P2701127-001 (100ml)	[redacted]2.4,10.2)	LM/SC	5	
13	5/2/07 18:46	05020713.D	P2701127-002 (75ml)	[redacted]1.4,10.6)	LM/SC	6	
14	5/2/07 19:22	05020714.D	P2701127-003 (75ml)	[redacted]1.5,11.4)	LM/SC	7	
15	5/2/07 19:59	05020715.D	P2701127-004 (100ml)	[redacted]5,10.4)	LM/SC	8	
16	5/2/07 20:35	05020716.D	P2701127-005 (120ml)	[redacted]1.8,10.5)	LM/SC	9	
17	5/2/07 21:11	05020717.D	P2701127-006 (150ml)	[redacted].9,10.4)	LM/SC	10	
18	5/2/07 21:48	05020718.D	P2701127-007 (25ml)	[redacted]1.6,10.3)	LM/SC	11	
19	5/2/07 22:24	05020719.D	P2701127-008 (200ml)	[redacted](-1.7,10.2)	LM/SC	12	
20	5/2/07 23:00	05020720.D	P2701127-009 (100ml)	[redacted]1.1,10.7)	LM/SC	13	
21	5/2/07 23:37	05020721.D	BLANK (200ml)	Rinse	LM/SC	4	
22	5/3/07 0:13	05020722.D	P2701127-010 (400ml)	[redacted](-1.2,10.7)	LM/SC	14	
23	5/3/07 0:49	05020723.D	P2701127-011 (400ml)	[redacted](-13.9,10.7)	LM/SC	15	

Columbia Analytical Services, Inc.
Sample Acceptance Check Form

Client: TRC Work order: P2701193

Project: WDI

Sample(s) received on: 04/25/07 Date opened: 04/25/07 by: MZ

Note: This form is used for all samples received by CAS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client or as required by the method/SOP.

		Yes	No	N/A
1	Were **sample containers** properly marked with client sample ID?	☒	☐	☐
2	Did **sample containers** arrive in good condition?	☒	☐	☐
3	Were **chain-of-custody** papers used and filled out?	☒	☐	☐
4	Did **sample container labels** and/or tags agree with custody papers?	☒	☐	☐
5	Was **sample volume** received adequate for analysis?	☒	☐	☐
6	Are samples within specified holding times?	☒	☐	☐
7	Was proper **temperature** (thermal preservation) of cooler at receipt adhered to?	☐	☐	☒
	Cooler Temperature NA °C			
	Blank Temperature NA °C			
8	Were **custody seals** on outside of cooler/Box?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
	Were custody seals on outside of sample container?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
9	Is pH (acid) **preservation** necessary, according to method/SOP or Client specified information?	☐	☐	☒
	Is there a client indication that the submitted samples are **pH** (acid) preserved?	☐	☐	☒
	Were **VOA vials** checked for presence/absence of air bubbles?	☐	☐	☒
	Does the client/method/SOP require that the analyst check the sample pH and if necessary alter it?	☐	☐	☒
10	**Tubes:** Are the tubes capped and intact?	☐	☐	☒
	Do they contain moisture?	☐	☐	☒
11	**Badges:** Are the badges properly capped and intact?	☐	☐	☒
	Are dual bed badges separated and individually capped and intact?	☐	☐	☒

Lab Sample ID	Required pH (as received, if required)	pH (as received, if required)	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P2701193-001			NA	
P2701193-002			NA	

Explain any discrepancies: (include lab sample ID numbers):

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Air - Chain of Custody Record & Analytical Service Request

Columbia Analytical Services INC.
An Employee - Owned Company
2655 Park Center Drive, Suite A
Simi Valley, California 93065
Phone (805) 526-7161
Fax (805) 526-7270

Requested Turnaround Time in Business Days (Surcharges) please circle
1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day - Standard

CAS Project No. P2701193

CAS Contact

Company Name & Address (Reporting Information)
TRC
21 W. TECHNOLOGY DR.
IRVINE, CA. 92618

Project Name: WOI

Project Number

Project Manager: ANAND HELEKAR

P.O. # / Billing Information

Phone: (949) 727-9336 Fax: (949) 727-7399

Email Address for Result Reporting: AHELEKAR@TRCSOLUTIONS.COM

Sampler (Print & Sign): STEVEN CRAWFORD Steven Crawford

Analysis Method and/or Analytes

Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Sample Type (Air/Tube/Solid)	Canister ID (Bar Code # - AC, SC, etc.)	Flow Controller (Bar Code - FC #)	Sample Volume	TO-15	EPA 25C MODIFIED (TOTAL NON METHANE ORGANIC CARBON)	EPA 3C MODIFIED (METHANE)		Comments e.g. Actual Preservative or specific instructions
WOI-GTS-IN-4-23-07	1	4-23-07	1912	AIR	SC00389	6V-.5-115	6L	X	X	X		
WOI-GTS-OUT-4-23-07	2	4-23-07	1838	AIR	SC00295	6V-.5-083	6L	X	X	X		

Report Tier Levels - please select
Tier I - (Results/Default if not specified) ____
Tier II - (Results + QC) ✓
Tier III - (Data Validation Package) 10% Surcharge ____
Tier V - (client specified) ____

EDD required Yes / No
Type: ____ EDD Units: ____

Project Requirements (MRLs, QAPP)

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Steven Crawford	4-24-07	2:00	[illegible]	4/25/07	0945
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

Cooler / Blank
Temperature ____ °C 11 [illegible]