

**Robert Bucci, Consultant**  
**3344 Wildwood Dr.**  
**Niagara Falls, New York 14304**  
**Phone 716 297-6772 Cell & 716 628-8208**  
**Email: nia3344@verizon.net**

December 17, 2009

Mr. Michael J. Hinton, PE  
Environmental Engineer II  
NYS Department of Environmental Conservation  
270 Michigan Avenue  
Buffalo, New York 14203-2999

SUBJECT: Graftech International Holdings Inc.  
(Formerly UCAR Carbon Co., Republic Site)  
#32NO3 OM&M Compliance Report

Dear Mr. Hinton,

In accordance with our Operation Monitoring and Maintenance Plan I am supplying you with the following information. As you requested I am enclosing an electronic copy of our 2009 annual ground water sampling report, our annual inspection of the wells, locks, well casing, seal and the landfill cap and surrounding area, and fence. A copy of our weekly inspections is also included.

If you have any questions please feel free to call me at (716) 628-8208.

Very truly yours,

Robert Bucci  
Consultant

R. Bucci  
enc.

cc: Brian Sadowski, Project Manager - Cover letter only  
Juanita Bursley, Corporate Senior Manager, Environmental ProtectionUCAR  
Carbon, a Graftech International Holdings Inc. Co.

June 4, 2007

Reference No. 005513

**Robert Bucci, Consultant**  
**3344 Wildwood Dr.**  
**Niagara Falls, New York 14304**  
**Phone 716 297-6772 Cell & 716 628-8208**  
**Email: nia3344@verizon.net**

June 2, 2009

Reference No. 005513

Ms. Mary F. McIntosh  
Engineering Geologist II  
NEW YORK STATE DEPARTMENT OF  
ENVIRONMENTAL CONSERVATION  
270 Michigan Avenue  
Buffalo, NY 14203-2999

Dear Ms. McIntosh:

Re: Annual Monitoring Event 2009  
UCAR Republic SWMF #32N03

The annual monitoring event for the above-referenced Site was conducted on March 26, 2009. The Site groundwater monitoring program was modified in November 2005 and currently consists of the following (excerpt from letter from C. Barron (CRA) to M. McIntosh (NYSDEC) dated November 4, 2005.):

Annual sampling of seven wells (BW-1, BW-2, BW-3, BW-4, MW-3, GW-8B, and GW-9B) with analysis of the samples for Part 360 volatiles, ammonia, iron (total and soluble), potassium (total and soluble), zinc (total and soluble), nitrite, total kjeldahl nitrogen (TKN), turbidity, groundwater elevation, pH, specific conductance, and temperature. Monitoring is rotated between the spring and fall seasons such that one year sampling is conducted in the spring and the next year it will be conducted in the fall. Sampling is conducted once in each calendar year and reporting is submitted annually following receipt and review of the groundwater analytical data.

The sample collection and analyses were performed in accordance with the program outlined in the letters from M. McIntosh (NYSDEC) to R. Bucci (UCAR), dated January 18, 2000 and February 23, 2000. A sample collection and analysis summary is presented in Table 1 and water level elevations measured prior to well purging are presented in Table 2. The analytical laboratory report for this sampling event is enclosed and the data are summarized in Table 3.

June 2, 2009

Reference No. 005513

The analytical data from this monitoring event are consistent with the historical data.

The next groundwater monitoring event at the Site will be conducted in the Fall of 2010. Should you have any questions or require additional information, please do not hesitate to contact the undersigned at 716-628-8208.

Yours truly,

A handwritten signature in black ink, appearing to read "Robert Bucci". The signature is fluid and cursive, with a large initial "R" and "B".

Robert Bucci  
Site Consultant

Encl.

c.c.: M. Hans  
M. Hinton  
J. M. Bursley



**HYDRAULIC MONITORING  
POST-CLOSURE MONITORING PROGRAM  
UCAR REPUBLIC SWMU #32NO3  
NIAGARA FALLS, NEW YORK  
MARCH 2009**

<i>Well I.D.</i>	<i>TOC Elevation (Ft. AMSL)</i>	<i>Depth to Water (Ft. BTOC)</i>	<i>Water Level Elevation (Ft. AMSL)</i>	<i>Sounded Depth (Ft. BTOC)</i>	<i>Installed Depth (Ft. BTOC)</i>
MW-3	601.89	4.38	597.51	15.08	14.4
BW-1	610.72	10.54	600.18	25.88	35.9
BW-2	608.43	8.89	599.54	24.50	37.1
BW-3	604.72	5.10	599.62	23.46	22.7
BW-4	607.08	5.53	601.55	21.21	27.5
GW-8B	603.90	8.79	595.11	29.60	29.5
GW-9B	603.40	10.74	592.66	31.83	31.7

## Notes:

AMSL Above Mean Sea Level.  
BTOC Below Top of Casing.  
Ft. Feet.  
NM Not Measured.

TABLE 2

ANALYTICAL RESULTS SUMMARY  
ANNUAL GROUNDWATER MONITORING  
UCAR CARBON COMPANY, INC.  
NIAGARA FALLS, NEW YORK  
MARCH 2009

Parameters	Units	Sample ID: Location ID: Collection Date:	WG-5513-032609-003 BW-2 03/26/09	WG-5513-032609-004 BW-2 03/26/09 Duplicate	WG-5513-032609-001 GW-8B 03/26/09	WG-5513-032609-006 BW-1 03/26/09
<b>TCL Volatiles</b>						
1,1,1-Trichloroethane	µg/L		5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	µg/L		5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	µg/L		5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	µg/L		5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	µg/L		5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	µg/L		5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethene (total)	µg/L		10 U	10 U	20	10 U
1,2-Dichloropropane	µg/L		5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone	µg/L		10 U	10 U	10 U	10 U
2-Hexanone	µg/L		10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	µg/L		10 U	10 U	10 U	10 U
Acetone	µg/L		3.1 J	3.5 J	20 U	3.4 J
Benzene	µg/L		5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	µg/L		5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	µg/L		5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane	µg/L		5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	µg/L		0.84 J	0.86 J	10 U	0.63 J
Carbon tetrachloride	µg/L		5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	µg/L		5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	µg/L		5.0 U	5.0 U	5.0 U	3.0 J
Chloroform	µg/L		5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane	µg/L		5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	µg/L		5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	µg/L		5.0 U	5.0 U	5.0 U	5.0 U
Ethyl benzene	µg/L		5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/L		5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	µg/L		5.0 U	5.0 U	5.0 U	5.0 U
Toluene	µg/L		5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	µg/L		5.0 U	5.0 U	7.4	5.0 U
Vinyl chloride	µg/L		5.0 U	5.0 U	3.5 J	5.0 U
Xylenes (total)	µg/L		5.0 U	5.0 U	5.0 U	5.0 U

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UCAR CARBON COMPANY, INC.  
NIAGARA FALLS, NEW YORK  
MARCH 2009

Parameters	Sample ID: Location ID: Collection Date:	Units	WG-5513-032609-003 BW-2 03/26/09	WG-5513-032609-004 BW-2 03/26/09 <i>Duplicate</i>	WG-5513-032609-001 GW-8B 03/26/09	WG-5513-032609-006 BW-1 03/26/09
<b>TCL Volatiles</b>						
cis-1,3-Dichloropropene		µg/L	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene		µg/L	5.0 U	5.0 U	5.0 U	5.0 U
<b>Metals</b>						
Iron (total)		mg/L	49.1	54.4	0.319	5.49
Potassium (total)		mg/L	7.38	7.38	5.86	5.01
Zinc (total)		mg/L	8.82	9.64	0.725	11.4
Iron (dissolved)		mg/L	0.668	0.621	0.234	0.622
Potassium (dissolved)		mg/L	6.96	7.37	5.63	5.13
Zinc (dissolved)		mg/L	0.262 J	0.583 J	0.419	0.0200 U
<b>General Chemistry</b>						
Ammonia		mg/L	0.275	0.282	0.050 U	0.758
Nitrite		mg/L	0.010 U	0.010 U	0.010 U	0.010 U
Total Kjeldahl Nitrogen		mg/L	0.75	0.91	0.26	1.62

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UCAR CARBON COMPANY, INC.  
NIAGARA FALLS, NEW YORK  
MARCH 2009

Parameters	Units	Sample ID: Location ID: Collection Date:	WG-5513-032609-008 BW-3 03/26/09	WG-5513-032609-002 GW-9B 03/26/09	WG-5513-032609-007 BW-4 03/26/09	WG-5513-032609-005 MW-3 03/26/09
<b>TCL Volatiles</b>						
1,1,1-Trichloroethane	µg/L		0.71 J	5.0 U	13 UJ	5.0 U
1,1,2,2-Tetrachloroethane	µg/L		5.0 U	5.0 U	2.5 J	5.0 U
1,1,2-Trichloroethane	µg/L		5.0 U	5.0 U	13 UJ	5.0 U
1,1-Dichloroethane	µg/L		5.0 U	5.0 U	13 UJ	5.0 U
1,1-Dichloroethene	µg/L		5.0 U	5.0 U	3.6 J	5.0 U
1,2-Dichloroethane	µg/L		5.0 U	5.0 U	13 UJ	5.0 U
1,2-Dichloroethene (total)	µg/L		10 U	10 U	720	10 U
1,2-Dichloropropane	µg/L		5.0 U	5.0 U	13 UJ	5.0 U
2-Butanone	µg/L		10 U	10 U	25 UJ	10 U
2-Hexanone	µg/L		10 U	10 U	25 UJ	10 U
4-Methyl-2-pentanone	µg/L		10 U	10 U	25 UJ	10 U
Acetone	µg/L		1.2 J	1.6 J	4.2 J	1.9 J
Benzene	µg/L		5.0 U	5.0 U	13 UJ	5.0 U
Bromodichloromethane	µg/L		5.0 U	5.0 U	13 UJ	5.0 U
Bromoform	µg/L		5.0 U	5.0 U	13 UJ	5.0 U
Bromomethane	µg/L		5.0 U	5.0 U	13 UJ	5.0 U
Carbon disulfide	µg/L		10 U	10 U	25 UJ	10 U
Carbon tetrachloride	µg/L		5.0 U	5.0 U	13 UJ	5.0 U
Chlorobenzene	µg/L		5.0 U	5.0 U	13 UJ	5.0 U
Chloroethane	µg/L		5.0 U	5.0 U	13 UJ	5.0 U
Chloroform	µg/L		5.0 U	5.0 U	4.6 J	5.0 U
Chloromethane	µg/L		5.0 U	5.0 U	13 UJ	5.0 U
Dibromochloromethane	µg/L		5.0 U	5.0 U	13 UJ	5.0 U
Methylene chloride	µg/L		5.0 U	5.0 U	13 UJ	5.0 U
Ethyl benzene	µg/L		5.0 U	5.0 U	13 UJ	5.0 U
Styrene	µg/L		5.0 U	5.0 U	13 UJ	5.0 U
Tetrachloroethene	µg/L		5.0 U	5.0 U	140 J	5.0 U
Toluene	µg/L		5.0 U	5.0 U	13 UJ	5.0 U
Trichloroethene	µg/L		5.0 U	5.0 U	220 J	5.0 U
Vinyl chloride	µg/L		5.0 U	5.0 U	160 J	5.0 U
Xylenes (total)	µg/L		5.0 U	5.0 U	13 UJ	5.0 U

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ANALYTICAL RESULTS SUMMARY  
ANNUAL GROUNDWATER MONITORING  
UCAR CARBON COMPANY, INC.  
NIAGARA FALLS, NEW YORK  
MARCH 2009

Parameters	Sample ID: Location ID: Collection Date:	WG-5513-032609-008 BW-3 03/26/09	WG-5513-032609-002 GW-9B 03/26/09	WG-5513-032609-007 BW-4 03/26/09	WG-5513-032609-005 MW-3 03/26/09
	Units				
<b>TCL Volatiles</b>					
cis-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	13 UJ	5.0 U
trans-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	13 UJ	5.0 U
<b>Metals</b>					
Iron (total)	mg/L	2.33	0.699	26.0	7.67
Potassium (total)	mg/L	2.0 U	7.41	13.1	3.07
Zinc (total)	mg/L	2.32	0.0200 U	7.67	0.0268
Iron (dissolved)	mg/L	0.10 U	0.100 U	3.51	0.384
Potassium (dissolved)	mg/L	2.00 U	6.73	13.2	2.00 U
Zinc (dissolved)	mg/L	1.2100	0.0200 U	0.694	0.0200 U
<b>General Chemistry</b>					
Ammonia	mg/L	0.050 U	0.103	2.85	0.050 U
Nitrite	mg/L	0.010 U	0.010 U	0.010 U	0.010 U
Total Kjeldahl Nitrogen	mg/L	0.46	0.68	3.54	0.59

TABLE 3

SAMPLE COLLECTION AND ANALYSIS SUMMARY  
ANNUAL GROUNDWATER MONITORING  
UCAR CARBON COMPANY, INC.  
NIAGARA FALLS, NEW YORK  
MARCH 2009

Sample I.D.	Location I.D.	Collection Date (mm/dd/yy)	Collection Time (hr:min)	<u>Analysis/Parameters</u>							Comments
				VOCs	Selected Metals-total and dissolved	TKN	Nitrate	Ammonia			
WG-5513-032609-001	GW-8B	03/26/09	9:00	X	X	X	X	X	X	X	MS/MSD
WG-5513-032609-002	GW-9B	03/26/09	10:15	X	X	X	X	X	X	X	
WG-5513-032609-003	BW-2	03/26/09	11:00	X	X	X	X	X	X	X	
WG-5513-032609-004	BW-2	03/26/09	11:10	X	X	X	X	X	X	X	Field duplicate of WG-5513-032609-003
WG-5513-032609-005	MW-3	03/26/09	13:00	X	X	X	X	X	X	X	
WG-5513-032609-006	BW-1	03/26/09	11:45	X	X	X	X	X	X	X	
WG-5513-032609-007	BW-4	03/26/09	12:45	X	X	X	X	X	X	X	
WG-5513-032609-008	BW-3	03/26/09	13:15	X	X	X	X	X	X	X	
TB-5513-032609	-	03/26/09	-	X							Trip blank

## Notes:

- = Not applicable.
- MS - Matrix Spike.
- MSD - Matrix Spike Duplicate.
- TKN - Total Kjeldahl Nitrogen.
- VOCs - Volatile Organic Compounds.

106

Hydraulic Mon. testing  
Date 3.26.09 Crew DD, SS, D

Well #	Time	W/L	Sounded	Depth
Mw 3	1028	4.38	15.08	
Bw 1	0952	10.54	25.88	
Bw 2	0924	8.89	21.50	
Bw 3	1011	5.10	23.46	
Bw 4	1005	5.53	21.21	
GW 8	0828	8.79	29.60	
GW 9	0909	11.29	10.74	31.83
Mw 1	0959	7.97		21.00
Mw 2	0920	18.83		24.55
Bw 5	1022	1.70		28.80
Bw 6	0909	13.70		26.00

Inst. Control #

w/c Meter NF05034

Daily Log

YSI 650 MDS NFO4441 CALIBRATION	BEFORE	AFTER
DO	-	98.1
PH (7.00)	6.62	7.00
PH (4.00)	3.96	4.00
COND. (1.19)	4.49	4.49
TURB. (0)	0.2	0.0
TURB. (100)	100.6	100.0
3:26:09	Partly Sunny	49°F
07:55	on-site	Next Bob Buddi get site
keys		
DST	w/c Round	DD/SS Purge
end	sample GW 8, 9B, Bw 2	
10:30	DST Dry out Mw 3	
11:00	DST off-site	
3:57:00	Purge & Sample Bw 1, 7, 3	
13:45	Sample Mw 3	
	off-site	

David Ryan

(108)

Mw-3

Date 3-26-09 crew DJT,  
 Project # 5513-02  
 Conditions Good  
 Depth 2" 0-15.25  
 Initial w/L 4.38  
 Vol. Calc.  $15.25 - 4.38 = 10.87 \times 16 = 1.7$   
 Method dedicated Teflon Boiler

Purge Record

Time	Vol	pH	Cond	Temp °C	Turb
1035	1.7	7.90	0.580	9.66	360.8

Well Dry @ 2.2 gallons

Initial w/Q Clear, colorless

Final w/Q Cloudy Red/Brown

Final w/L Dry

Sample Record

Date 3-26-09  
 Crew SG/DD  
 Method dedicated Teflon Boiler  
 Vol/Analysis see pg 28C

Sample Time 1300  
 Sample ID MW-5513-032609-005

w/Q CLEAR, LT BROWN

pH	Cond	Temp °C	Turb
7.90	0.554	7.32	100.2

CofC #

18094

Inst Control # 5  
 w/L Meter NFO5034  
 VST NFO4441

Red Jeyan



(110)

Bow-1

Date 3/20/09  
 Project # 5513-20  
 Condition Good  
 Depth 4' 0 - 20.9 3" 20.9 - 35.9  
 Initial w/c 10.54  
 Vol. Calc 20.9 - 10.54 = 10.36 x 1.65 = 16.7  
 Method WHALE PUMP  
 35.9 - 20.9 = 15 x 1.37 = 5.16 5.16 + 16.7 = 21.86 GAL

Purge Record

Time	Vol	pH	Cond	Temp °C	Turb
1133	12.3	7.89	1.84	9.83	58.5
1137	24.6	7.60	1.83	9.85	71.5
1142	36.9	7.59	1.83	9.85	9.1
1146	49.2	7.49	1.82	9.81	8.4
1151	61.5	7.59	1.82	9.83	7.4

Initial w/c CLOUDY BLACK

Final w/c CLEAR, COLORLESS

Final w/c 12.83

Sample Record

Date 3/20/09  
 Crew SG, DJT, DD  
 Method TEFLON BOWLER  
 Vol/Analysis See pg 28C  
 Sample Time 1145  
 Sample ID WG-5513-052609-006

w/o CLOUDY GRAY

pH 7.89  
 Cond 1.96  
 Temp °C 8.80  
 Turb 121.3

Co/C #

18094

LAST Control #5  
 w/c Meter N.F. 05034  
 YST N.F. 04441

Dave Jagan

(112)

Bas-12

Date 3/20/09 crew DD/SS  
 Project # 5513-20  
 Condition Good  
 Depth 4" 0-21.1 3" 21.1-37.1  
 Final w/L 8.83  
 Vol. Calc  $21.1 \cdot 8.83 = 12.27$ ,  $16.5 = 7.97$   
 $37.1 - 21.1 = 17$ ,  $17 \cdot 3.7 = 6.29$ ,  $7.97 + 6.29 = 14.3$  @ 20  
 Method WHALE PUP

Perge Record

Time	Vol	pH	Cond	Temp °C	Turb
1043	14.3	7.02	2.62	10.2	11.8
1048	28.6	6.93	2.51	10.17	7.1
1053	42.9	7.00	2.57	10.21	2.3

Initial w/L Cloudy, Brown

Final w/L CLEAR, colorless

Final w/L 9.2

Sample Record DUP

Date 3/20/09  
 Crew 66, OUT, DD  
 Method TELON BAUER  
 Vol/Analysis see pg 28C

Sample Time 1100  
 Sample ID WG-5513-032109-003  
 BLIND DUP 10\* WG-5513-032109-004 TIME 1110

w/L cloudy BROWN

pH 7.8  
 Cond 2.34  
 Temp °C 8.82  
 Totb 289.7

Lot C

11094

Inst Control #5  
 W/L Meter NFO034  
 YSI NFO441C

David J. Egan

(114)

BW-3

Date 3/26/69  
 Project # 5513-20  
 Condition GOOD  
 Depth 4" 0-9.7  
 Initial w/L 8.10  
 Vol. Calc 9.7-5.10 = 4.60 x 65 = 3.0  
 13.45-9.7 = 3.75 x 137 = 5.11 5.11 + 3.0 = 8.1  
 Method WHALE PUMP

Crew SEANT, DD

3" 9.7-23.45

Page Record

Time	Vol	pH	cond	Temp °C	Turb
1255	8.1	7.54	0.950	8.37	4.8
1258	16.2	7.34	0.929	8.25	2.7
1300	24.3	7.24	0.929	8.00	3.5
1302	32.4	7.20	0.930	8.01	2.9

Initial w/Q CLEAR, COLORLESS

Final w/Q CLEAR, COLORLESS

Final w/L 5.15

Sample Record

Date 3/26/69  
 Crew SEANT, DD  
 Method TERFLAN BAKER  
 Vol / Analysis See pg 285  
 Sample Time 1315  
 Sample ID W8-5513-052609-018

w/Q CLEAR, COLORLESS

pH 7.33  
 Cond 0.845  
 Temp °C 7.55  
 Turb 15.10

Col C #

18094

11517 Control #5  
 11517 Meter NFD5034  
 11517 NFD5444

David J. Spear

(116)

Bw-4

Date 3/22/09  
 Project # 5513-20  
 Conditions Good  
 Depth 4" 0-13.9 3' 13.9-27.5  
 Initial w/L 5.53  
 Vol. Calc 13.9-5.53 = 8.37 x .45 = 3.74  
 27.5-13.9 = 13.6 x .37 = 5.0 S.A.T.S.O. = 10.4 GAL.  
 Method W/ALP PUMP

Purge Record

Time	Vol	pH	Cond	Temp °C	Turb
12:19	10.4	7.68	1.43	9.23	13.4
12:23	20.8	7.36	1.47	9.20	20.0
12:27	31.2	7.38	1.46	9.20	14.5
12:30	41.6	7.35	1.44	9.21	12.0

Initial w/Q CLEAR LT BROWN

Final w/Q CLEAR, colorless

Final w/c 60.90m

Sample Record

Date 3/22/09  
 Crew SG, DJT, DD  
 Method TEFLON BAWLER

Vol / Analysis See pp 28C

Sample Time 12:45

Sample ID WG-5513-032609-007

w/Q CLEAR LT BROWN

pH 7.55  
 Cond 1.30  
 Temp °C 7.93  
 Turb 39.9

Col. C+

18091

Inst. Control #5  
 will have N105034  
 YST N1051441

David J. Egan

(118)

Crew - BB

Date 3/26/09  
 Project # 5513-20  
 Condition Good  
 Depth 3' 0-29.5  
 Initial w/L 8.79  
 Vol. Calc. 29.5 - 8.79 = 20.71 x .37 = 7.7

Method WHALE PUMP

Purge Record

Time	Vol	pH	Cond	Temp	Turb
0833	7.7	8.47	1.75	8.80	86.2
0837	15.4	8.05	1.87	9.63	180.2
0841	23.1	7.50	1.88	9.66	65.7
0847	30.8	7.24	1.87	9.64	20.2
0852	38.5	7.19	1.87	9.64	11.1
Initial w/o			CLEAR, COLORLESS		

Final w/o CLEAR, COLORLESS

Final w/L 16.28

Sample Record MS/MSD

Date 3/26/09  
 Crew SG, DIT, DD  
 Method TEFLON BAIER  
 Vol/Analysis See pg 28C

Sample Time 0900  
 Sample ID WG 5513-032609-001

w/o CLEAR, COLORLESS

pH 7.40  
 Cond 1.87  
 Temp 9.30  
 Turb 4.5

CaFC # 18094

Trist. Control #'S  
 W/L Meter NFO5034  
 YSL NFO 4441

David J. Yoon

(20)

GLW-9B

Date 3/26/09 Crew SG, DIT, DD  
 Project # 5513-20  
 Condition Good  
 Depth 3" 0-31.7  
 Initial w/L 10.74  
 Vol. Calc.  $31.7 - 10.74 = 20.96 \times .37 = 7.86 \text{ ml}$

Method WHALE PUMP

Purge Record

Time	Vol	pH	Cond	Temp °C	Turb
0952	7.8	7.38	2.61	9.96	2.9
0955	15.6	7.15	2.67	10.10	3.7
1000	23.4	7.09	2.67	10.23	2.1
1004	31.2	7.08	2.68	10.22	2.5

Initial w/p CLEAR, COLORLESS

Final w/p CLEAR, COLORLESS

Final vol 23.09

Sample Record

Date 3/26/09  
 Crew SG, DIT, DD  
 Project # 5513-20  
 METHOD: TEFLON BAILER  
 Vol/Analysis See pg 28C

Sample Time 1015  
 Sample ID WG-032609-002

w/p CLEAR, COLORLESS

pH 7.47 Cond 2.61  
 Temp °C 9.87 Turb 8.6

Co/C #  
 120914

Inst. Control # 5  
 w/L Meter NFO503A  
 VSI NFO44A1

April 2, 2009

**Robert Bucci, Consultant**  
**3344 Wildwood Dr.**  
**Niagara Falls, New York 14304**  
**Phone 716 297-6772 Cell & 716 628-8208**  
**Email: nia3344@verizon.net**

June 2, 2009

Reference No. 005513

Mark Carpenter, Councilman  
Town of Niagara  
7105 Lockport Road  
Niagara Falls, New York 14305

SUBJECT: Semi-Annual Monitoring Event  
UCAR Republic SWMF #32N03

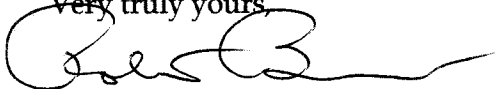
Dear Mr. Carpenter,

Please find attached letter that was sent from Mary E. McIntosh, Engineering Geologist II of the N.Y.S.D.E.C. Region 9 Office for the UCAR Republic Landfill #32N03. The entire report is filed in the Town of Niagara Town Clerks Office for your review.

Copies of the these reports have also been forwarded to N.Y.S.D.E.C. Region 9 Office in Buffalo, as well as the Niagara County Health Department.

If anyone in the Town of Niagara has any questions please feel free to call me at (716) 628-8208.

Very truly yours,



Robert Bucci  
Consultant

R. Bucci  
Attachment

**Robert Bucci, Consultant**  
**3344 Wildwood Dr.**  
**Niagara Falls, New York 14304**  
**Phone 716 297-6772 Cell & 716 628-8208**  
**Email: nia3344@verizon.net**

June 2, 2009

Charles F. Teixeira, Councilman  
Town of Niagara  
7105 Lockport Road  
Niagara Falls, New York 14305

SUBJECT:     Semi-Annual Monitoring Event  
              UCAR Republic SWMF #32N03

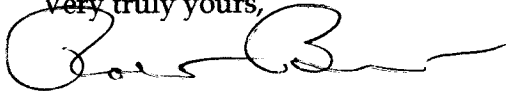
Dear Mr. Teixeira,

Please find attached letter that was sent from Mary E. McIntosh, Engineering Geologist II of the N.Y.S.D.E.C. Region 9 Office for the UCAR Republic Landfill #32N03. The entire report is filed in the Town of Niagara Town Clerks Office for your review.

Copies of the these reports have also been forwarded to N.Y.S.D.E.C. Region 9 Office in Buffalo, as well as the Niagara County Health Department.

If anyone in the Town of Niagara has any questions please feel free to call me at (716) 628-8208.

Very truly yours,

A handwritten signature in black ink, appearing to read 'R. Bucci', with a long horizontal flourish extending to the right.

Robert Bucci  
Consultant

R. Bucci  
Attachment



**Robert Bucci, Consultant**  
**3344 Wildwood Dr.**  
**Niagara Falls, New York 14304**  
**Phone 716 297-6772 Cell & 716 628-8208**  
**Email: nia3344@verizon.net**

June 2, 2009

Reference No. 005513

Fabian Rosati  
Chairman-Environmental Committee  
Town of Niagara  
7105 Lockport Road  
Niagara Falls, New York 14305

SUBJECT: Semi-Annual Monitoring Event  
UCAR Republic SWMF #32N03

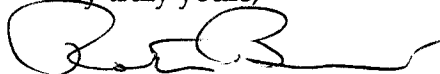
Dear Mr. Rosati,

Please find attached letter that was sent from Mary E. McIntosh, Engineering Geologist II of the N.Y.S.D.E.C. Region 9 Office for the UCAR Republic Landfill #32N03. The entire report is filed in the Town of Niagara Town Clerks Office for your review.

Copies of the these reports have also been forwarded to N.Y.S.D.E.C. Region 9 Office in Buffalo, as well as the Niagara County Health Department.

If anyone in the Town of Niagara has any questions please feel free to call me at (716) 628-8208.

Very truly yours,



Robert Bucci  
Consultant

R. Bucci  
Attachment

**Robert Bucci, Consultant**  
**3344 Wildwood Dr.**  
**Niagara Falls, New York 14304**  
**Phone 716 297-6772 Cell & 716 628-8208**  
**Email: nia3344@verizon.net**

June 2, 2009

Reference No. 005513

Richard Clark, Councilman  
Town of Niagara  
7105 Lockport Road  
Niagara Falls, New York 14305

SUBJECT: Semi-Annual Monitoring Event  
UCAR Republic SWMF #32N03

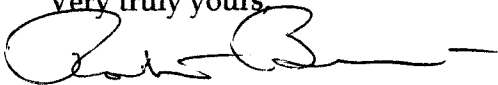
Dear Mr. Clark,

Please find attached letter that was sent from Mary E. McIntosh, Engineering Geologist II of the N.Y.S.D.E.C. Region 9 Office for the UCAR Republic Landfill #32N03. The entire report is filed in the Town of Niagara Town Clerks Office for your review.

Copies of the these reports have also been forwarded to N.Y.S.D.E.C. Region 9 Office in Buffalo, as well as the Niagara County Health Department.

If anyone in the Town of Niagara has any questions please feel free to call me at (716) 628-8208.

Very truly yours,



Robert Bucci  
Consultant

R. Bucci  
Attachment

**Robert Bucci, Consultant**  
**3344 Wildwood Dr.**  
**Niagara Falls, New York 14304**  
**Phone 716 297-6772 Cell & 716 628-8208**  
**Email: nia3344@verizon.net**

June 2, 2009

Reference No. 005513

Honorable S. Richards, Supervisor  
Town of Niagara  
7105 Lockport Road  
Niagara Falls, New York 14305

SUBJECT: Semi-Annual Monitoring Event  
UCAR Republic SWMF #32N03

Dear Mr. Richards,

Please find attached letter that was sent from Mary E. McIntosh, Engineering Geologist II of the N.Y.S.D.E.C. Region 9 Office for the UCAR Republic Landfill #32N03. The entire report is filed in the Town of Niagara Town Clerks Office for your review.

Copies of the these reports have also been forwarded to N.Y.S.D.E.C. Region 9 Office in Buffalo, as well as the Niagara County Health Department.

If anyone in the Town of Niagara has any questions please feel free to call me at (716) 628-8208.

Very truly yours



Robert Bucci  
Consultant

R. Bucci  
Attachment

**Robert Bucci, Consultant**  
**3344 Wildwood Dr.**  
**Niagara Falls, New York 14304**  
**Phone 716 297-6772 Cell & 716 628-8208**  
**Email: nia3344@verizon.net**

June 2, 2009

Mr. Mark Hans, PE  
Regional Solid Materials Engineer  
NYS Department of Environmental Conservation  
270 Michigan Avenue  
Buffalo, New York 14203-2999

SUBJECT: UCAR Republic Landfill #32NO3

Dear Mr. Hans,

Please find enclosed a copy of the sampling results that were sent to Mary E. McIntosh, Engineering Geologist II of the New York State Department of Environmental Conservation Region 9 Office.

If you have any questions please feel free to call me at (716 628-8208).

Very truly yours,



Robert Bucci  
Consultant

R. Bucci  
enc.

**Robert Bucci, Consultant**  
**3344 Wildwood Dr.**  
**Niagara Falls, New York 14304**  
**Phone 716 297-6772 Cell & 716 628-8208**  
**Email: nia3344@verizon.net**

June 2, 2009

Mr. Michael J. Hinton, PE  
Environmental Engineer II  
NYS Department of Environmental Conservation  
270 Michigan Avenue  
Buffalo, New York 14203-2999

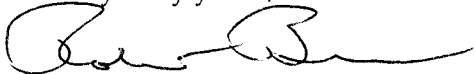
SUBJECT: UCAR Republic Landfill #32NO3

Dear Mr. Hinton,

Please find enclosed a copy of the sampling results that were sent to Mary E. McIntosh, Engineering Geologist II of the New York State Department of Environmental Conservation Region 9 Office.

If you have any questions please feel free to call me at (716) 628-8208.

Very truly yours,



Robert Bucci  
Consultant

R. Bucci  
enc.

**Robert Bucci, Consultant**  
**3344 Wildwood Dr.**  
**Niagara Falls, New York 14304**  
**Phone 716 297-6772 Cell & 716 628-8208**  
**Email: nia3344@verizon.net**

June 2, 2009

Mr. Jim Devald, Dir. of Environmental Health  
Niagara County Health Department  
Environmental Division  
5467 Upper Mountain Road  
Lockport, New York 14094-1899

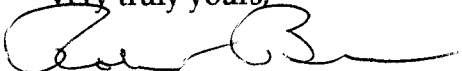
SUBJECT: UCAR Republic Landfill #32NO3

Dear Mr. Devald,

Please find enclosed a copy of the sampling results that were sent to Mary E. McIntosh, Engineering Geologist II of the New York State Department of Environmental Conservation Region 9 Office.

If you have any questions please feel free to call me at (716 (628-8208).

Very truly yours,



Robert Bucci  
Consultant

R. Bucci  
enc.

**Robert Bucci, Consultant**  
**3344 Wildwood Dr.**  
**Niagara Falls, New York 14304**  
**Phone 716 297-6772 Cell & 716 628-8208**  
**Email: [nia3344@verizon.net](mailto:nia3344@verizon.net)**

June 2, 2009

Mrs. Sylvia Virtuoso, Town Clerk  
Town of Niagara  
7105 Lockport Road  
Niagara Falls, New York 14305

SUBJECT: Semi-Annual Monitoring Event  
UCAR Republic SWMF #32N03

Dear Mrs. Virtuoso,

Please find enclosed a copy of the sampling results that were sent to Mary E. McIntosh, Engineering Geologist II of the N.Y.S.D.E.C. Region 9 Office for the UCAR Republic Landfill #32N03.

If anyone in the Town of Niagara has any questions please feel free to call me at (716) 628-8208.

Very truly yours,



Robert Bucci  
Consultant

R. Bucci  
Enc.

**Robert Bucci, Consultant**  
**3344 Wildwood Dr.**  
**Niagara Falls, New York 14304**  
**Phone 716 297-6772 Cell & 716 628-8208**  
**Email: nia3344@verizon.net**

June 2, 2008

Reference No. 005513

Ed Edamczyk Supt. Of Water  
Town of Niagara  
7105 Lockport Road  
Niagara Falls, New York 14305

SUBJECT: Semi-Annual Monitoring Event  
UCAR Republic SWMF #32N03

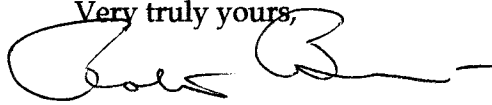
Dear Mr. Edamczyk,

Please find attached letter that was sent from Mary E. McIntosh, Engineering Geologist II of the N.Y.S.D.E.C. Region 9 Office for the UCAR Republic Landfill #32N03. The entire report is filed in the Town of Niagara Town Clerks Office for your review.

Copies of the these reports have also been forwarded to N.Y.S.D.E.C. Region 9 Office in Buffalo, as well as the Niagara County Health Department.

If anyone in the Town of Niagara has any questions please feel free to call me at (716) 628-8208.

Very truly yours,



Robert Bucci  
Consultant

R. Bucci  
Attachment





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## MEMORANDUM

---

TO: Jim Kay

REF. NO.: 005513

FROM: Deb Andrasko/bjw/1

DATE: May 15, 2009

E-Mail and Hard Copy If Requested

RE: **Analytical Results and QA/QC Review  
Annual Groundwater Monitoring Program  
UCAR Carbon Company, Inc.  
Niagara Falls, New York  
March 2009**

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### INTRODUCTION

Eight groundwater samples, including one field duplicate sample were collected during March 2009 in support of the annual monitoring program at the UCAR Carbon Site in Niagara Falls, New York (Site). The samples were submitted to Columbia Analytical Services (CAS), located in Rochester, New York, and analyzed for the following:

<i>Parameter</i>	<i>Methodology</i>
Volatile Organic Compounds (VOCs)	SW-846 8260B <sup>1</sup>
Total & Dissolved Iron, Potassium, and Zinc	SW-846 6010B <sup>1</sup>
Ammonia	USEPA 350.1 <sup>2</sup>
Nitrite	USEPA 353.2 <sup>2</sup>
Total Kjeldahl Nitrogen (TKN)	USEPA 351.2 <sup>2</sup>

A sampling and analysis summary is presented in Table 1. The analytical results are summarized in Table 2. The quality assurance/quality control (QA/QC) criteria by which the data have been assessed are outlined in the respective methods and the following documents:

- i) "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review", October 1999, United States Environmental Protection Agency (USEPA) 540/R-99/008;
- ii) "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review", February 1994, USEPA 540/R-94/013.

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<sup>1</sup> "Test Methods for Solid Waste Physical/Chemical Methods", SW-846, 3<sup>rd</sup> Edition, September 1986 (with all subsequent revisions).

<sup>2</sup> "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency (USEPA) 600/4-79-220, March 1983 (with all subsequent revisions).



**CONESTOGA-ROVERS  
& ASSOCIATES**

2055 Niagara Falls Blvd., Suite #3  
Niagara Falls, New York 14304  
Telephone: (716) 297-6150 Fax: (716) 297-2265  
www.CRAworld.com

---

## MEMORANDUM

---

*Sent via email*

TO: Jim Kay REF. NO.: 005513  
FROM: Dave Tyran/adh/7 *DJT* DATE: March 27, 2009  
RE: Annual Groundwater Sampling

---

### INTRODUCTION

In accordance with Conestoga-Rovers & Associates (CRA) Field Sampling Plan (FSP) Post-Closure Monitoring Program for UCAR Carbon's Solid Waste Management Unit (SWMU) No. 32NO3, the Annual groundwater sampling event was performed on March 26, 2009. Activities associated with this sampling event are described in this memo.

### HYDRAULIC MONITORING

Prior to sampling, a complete round of water level measurements and well soundings were taken. Table 1 presents the water level information in addition to comparing the sounded depths to the installed depths.

### GROUNDWATER MONITORING

A total of seven monitoring wells were visited during this sampling round. Monitoring well MW-3 had minimal water and was purged dry; the remaining six wells had sufficient recharge to purge three to five well volumes. Monitoring well MW-3 recovered enough for a full sample to be collected.

Purging of wells was accomplished by the use of either a battery operated submersible pump or Teflon bailer. Samples were obtained with a dedicated bottom loading Teflon bailer. Table 2 provides the pertinent groundwater data.

### WELL INSPECTIONS

Well inspections were performed at each of the monitoring wells. No problems were noted during this round.

### FUTURE MONITORING

The next scheduled groundwater sampling round will be performed in September 2010.

Full Contract Laboratory Program (CLP) equivalent raw data deliverables were provided by the laboratory. The data quality assessment and validation presented in the following subsections were performed based on the sample results, supporting QA/QC and raw data provided.

#### Holding Time Period And Sample Analysis

The holding time periods are presented in the analytical methods. All samples were properly preserved and cooled to 4°C ( $\pm 2^\circ\text{C}$ ) after collection. All samples were prepared and analyzed within the method-required holding times.

#### Gas Chromatography/Mass Spectrometer (GC/MS) Mass Calibration

Prior to analysis, GC/MS instrumentation is tuned to ensure optimization over the mass range of interest. To evaluate instrument tuning, the volatile organic compound (VOC) method requires the analysis of the specific tuning compound bromofluorobenzene (BFB). The resulting spectra must meet the criteria cited in the method before analysis is initiated. Analysis of the tuning compound must then be repeated every 12 hours throughout sample analysis to ensure the continued optimization of the instrument.

Instrument tuning data were reviewed. The tuning compound was analyzed at the required frequency throughout the VOC analysis periods. All tuning criteria were met for the analyses, indicating proper optimization of the instrumentation.

#### Initial Calibration - GC/MS Analyses

To quantify compounds of interest in samples, calibration of the GC/MS over a specific concentration range must be performed. Initially, a minimum of a five-point calibration curve containing all compounds of interest is analyzed to characterize instrument response for each analyte over a specific concentration range.

Calibration data were reviewed for all samples. Linearity of the calibration curve and instrument sensitivity were evaluated against the following criteria:

- i) all relative response factors (RRFs) for the GC/MS must be greater than or equal to 0.05; and
- ii) percent relative standard deviation (%RSD) values for the GC/MS must not exceed 30 percent, or if linear regression is used, the correlation coefficient ( $R^2$ ) value must be at least 0.990.

Initial calibration standards were analyzed as required and the data showed acceptable sensitivity and linearity.

#### Initial Calibration - Metals Analyses

To calibrate the inductively coupled plasma (ICP), a calibration blank and at least one standard must be analyzed at each wavelength to establish the analytical curve. After calibration, an initial calibration verification (ICV) standard must be analyzed to verify the analytical accuracy of the calibration curves within a method-specific percent recovery of the accepted or true value. A Contract Required Detection Limit (CRDL) standard is analyzed before and after sample analyses to verify instrument sensitivity.

A review of the data showed that all metals calibration curves, ICVs and CRDL were analyzed at the proper frequencies and were within the acceptance criteria.

#### Initial Calibration - General Chemistry Analyses

The general chemistry analyses of ammonia, nitrite, and TKN were calibrated in accordance with the methods and all calibration criteria were met.

#### Continuing Calibration - GC/MS

To ensure that instrument calibration is acceptable throughout the sample analysis period, continuing calibration standards must be analyzed and compared to the initial calibration curve every 12 hours.

The following criteria were employed to evaluate continuing calibration data:

- i) all RRF values for the GC/MS must be greater than or equal to 0.05; and
- ii) percent difference (%D) values must not exceed 25 percent.

Continuing calibration standards were analyzed at the required frequency and the results met the above criteria for instrument sensitivity and linearity of response.

#### Continuing Calibration - Inorganics

Continuing calibration criteria for inorganic analyses were the same criteria as used for assessing the initial calibration data. All continuing calibration verification data were within the acceptance criteria.

#### Surrogate Compound Recoveries

Surrogates were added to all samples, blanks, and QC samples prior to analysis of VOCs. All recoveries met the method criteria, with the exception of a low surrogate recovery for one sample. All associated results were qualified as estimated based on the indicated low bias (see Table 3).

#### Method Blank Samples

Method blanks were analyzed for all parameters. All results were non-detect, indicating that contamination during analysis was not a concern.

#### Laboratory Control Sample (LCS) Analysis

The LCS serves as a measure of overall analytical performance. LCSs are prepared with all analytes of interest and analyzed with each sample batch.

LCSs were prepared and analyzed for all parameters at the proper frequency. The LCS recoveries were within the control limits for all analytes of interest, indicating acceptable analytical accuracy.

### Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses

The recoveries of MS analyses are used to assess the analytical accuracy achieved on individual sample matrices. MS/MSD analyses were performed on the sample submitted for analysis, as shown in Table 1. The MS/MSD recoveries were within laboratory control limits for all analytes of interest, indicating good analytical accuracy and precision.

### Inductively Coupled Plasma (ICP) Interference Check Sample (ICS) Analysis

To verify that proper inter-element and background correction factors have been established by the laboratory, ICSs are analyzed. These samples contain high concentrations of aluminum, calcium, magnesium, and iron and are analyzed at the beginning and end of each sample analysis period.

ICS analysis results were evaluated for all samples. All ICS recoveries were within the established control limits of 80 to 120 percent.

### Serial Dilution - Metals Analyses

The serial dilution determines whether significant physical or chemical interferences exist due to sample matrix. A minimum of one per 20 investigative samples is analyzed at a five-fold dilution. For samples with sufficient analyte concentrations, the serial dilution results must agree within 10 percent of the original results.

Serial dilution analysis was performed on the sample chosen for MS/MSD analyses and all results were within the method criteria.

### Internal Standard (IS) Summaries

To correct for changes in GC/MS response and sensitivity, IS compounds are added to investigative samples and QC samples prior to VOC analyses. All results are calculated as a ratio of the IS response. The criteria by which the IS results are assessed are as follows:

- i) IS area counts must not vary by more than a factor of two (-50 percent to +100 percent) from the associated calibration standard; and
- ii) the retention time of the IS must not vary more than  $\pm 30$  seconds from the associated calibration standard.

All sample IS results met the above criteria and were correctly used to calculate sample results.

### Trip Blanks - VOCs

Trip blanks are transported, stored, and analyzed with the investigative samples to identify potential cross-contamination of VOCs. A trip blank was collected as shown on Table 1. All results were non-detect for the analytes of interest, indicating that contamination during transport and storage was not an issue.

Field Duplicates


Samples were collected in duplicate as summarized in Table 1 and submitted "blind" to the laboratory for analysis. All sample results outside of estimated ranges of detection showed acceptable sampling and analytical precision with the exception of the zinc result for the dissolved metals analysis. The associated result was qualified as estimated based on the indicated variability (see Table 4).

CONCLUSION

Based on the preceding assessment, the data were acceptable for use with the qualifications noted.

## APPENDIX A

### INSPECTION OF LANDFILL FENCE & CAP & SURROUNDING AREA

Date	Time	Inspector
9-30-09	10:15 Am	

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	✓			
G	✓			
H	✓			
I	✓			
J	✓			

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	✓			
2	✓			
3	✓			

**COMMENTS:**

**CAP CONDITION COMMENTS: (Checking for erosion and vegetation)**

*No Erosion, Normal vegetation*

**SURROUNDING AREA:** *Area remains natural and untouched,  
no soil has been disrupted.*

**APPENDIX B**

**ANNUAL MONITORING WELL INSPECTION**

ID WELL NUMBER	WELL ID TAG INTACT YES/NO	LOCK CONDITION	OUTER CASING CONDITION	CONCRETE SEAL CONDITION	COMMENTS
MW1-78	Yes	Fair	Good	Good	ALL LOCKS Replaced 11/16
MW2-78	Yes	Fair	Good	Good	" "
MW3-79	Yes	Fair	Good	Good	" "
BW1-86	Yes	Fair	Good	Good	" "
BW2-86	Yes	Fair	Good	Good	" "
BW3-86	Yes	Fair	Good	Good	" "
BW4-86	Yes	Fair	Good	Good	" "
BW5-86	Yes	Fair	Good	Good	" "
BW6-86	Yes	Fair	Good	Good	" "
WW1-86	Yes	Fair	Good	Good	" "
OW1-88	Yes	Fair	Good	Good	" "
OW2-88	Yes	Fair	Good	Good	" "

**NYSDEC WELLS**

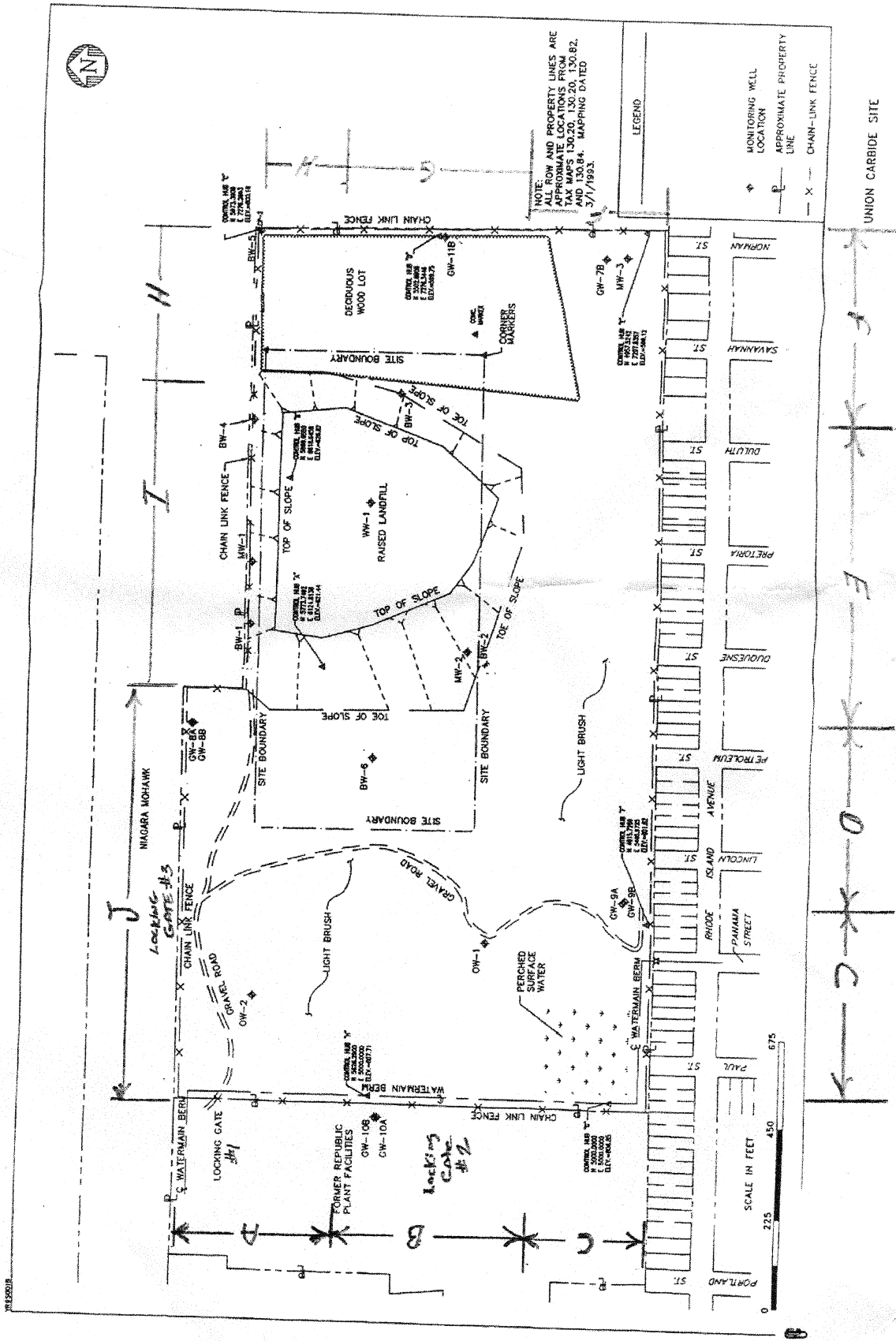
**(INSTALLED SEPT/OCT 93)**

ID WELL NUMBER	WELL ID TAG INTACT YES/NO	LOCK CONDITION	OUTER CASING CONDITION	CONCRETE SEAL CONDITION	COMMENTS
GW7B-93	Yes	Fair	Good	Good	" "
GW8A-93	Yes	Fair	Good	Good	" "
GW8B-93	Yes	Fair	Good	Good	" "
GW9A-93	Yes	Fair	Good	Good	" "
GW9B-93	Yes	Fair	Good	Good	" "
GW11B-93	Yes	Fair	Good	Good	" "

ENTIRE CAP MOWED: Completed in Sept. 09



# APPENDIX B



April 23, 2009

Service Request No: R0901679

Susan Scrocchi  
Conestoga-Rovers & Associates, Inc.  
2055 Niagara Falls Blvd., Suite 3  
Niagara Falls, NY 14304

**Laboratory Results for: UCAR Annual GE/ 5513-02**

Dear Susan:

Enclosed are the results of the sample(s) submitted to our laboratory on March 27, 2009. For your reference, these analyses have been assigned our service request number **R0901679**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 131. You may also contact me via email at [DPatton@caslab.com](mailto:DPatton@caslab.com).

Respectfully submitted,

**Columbia Analytical Services, Inc.**



Deb Patton  
Project Manager

Page 1 of 451

## **SDG NARRATIVE**

**CASE NARRATIVE**  
COMPANY: CRA, Inc.  
UCAR Annual Sampling #5513-02  
SUBMISSION #: R0901679

CRA samples were collected on 3/26/09 and received at CAS on 3/27/09 in good condition at 6°C. This was inside the 0-6°C temperature guidelines.

**INORGANIC ANALYSIS**

Eight samples were analyzed for a client specific list of inorganics by approved EPA MCAWW and SW-846 Methods. Please see attached data pages for specific method numbers. All soluble metals were field filtered.

The initial and continuing calibration criteria were met for all analytes.

All analyses were performed within method specific holding times.

The Blanks were free of contamination.

Site specific QC was run on WG-5513-032609-001. All Matrix Spike and Duplicates were within limits. All Laboratory Control Standards (LCS) recoveries were within limits. All RPD's were within limits.

No other analytical or QC problems were encountered.

**VOLATILE ORGANICS**

Eight water samples and one Trip Blank were analyzed for a client specific list of Volatile Organics by EPA Method 8260B.

All surrogate recoveries were within limits except for sample WG-5513-032609-007 had surrogate Toluene-d8 outside the control limits low and has been flagged with a "\*\*". This sample was repeated and both sets of data have been reported.

Sample WG-5513-032609-007 exceeded the calibration range of the instrument for Total 1,2-Dichloroethene and has been flagged with an "E". The sample was repeated at a dilution and has been flagged with a "D". Both sets of data have been reported.

All Blank Spike Recoveries were within limits.

The initial and continuing calibration criteria were met for all analytes.

The Laboratory Blanks associated with this analysis were free of contamination.

Site specific QC was run on WG-5513-032609-001. All Matrix Spike and Matrix Spike Duplicates were within limits. All Laboratory Control Standards (LCS) recoveries were within limits. All RPD's were within limits.

The Trip Blank associated with this job was free of contamination.

All hits between the PQL and MDL have been flagged with a "J" as estimated.

No other analytical or QC problems were encountered.

# CAS ASP/CLP Batching Form/Login Sheet

Client Proj #: 5513-02  
 Submission: R0901679  
 Client: Conestoga-Rovers & Associates,  
 Client Rep: DPATTON  
 Project: UCAR Annual GE

Batch Complete: Yes  
 Diskette Requested: No  
 Date: 3/30/09  
 Custody Seal: Present/Absent:  
 Chain of Custody: Present/Absent:

Date Revised:  
 Date Due: 4/17/09  
 Protocol: MCAWW  
 Shipping No.:

CAS Job #	Client/EPA ID	Matrix	Requested Parameters	Date Sampled	Date Received	pH (Solids)	% Solids	Remarks
R0901679-001QC	WG-5513-032609-001	Water	351.2, 353.2, 350.1, 6010B, 8260B	3/26/09	3/27/09			
R0901679-002	WG-5513-032609-002	Water	351.2, 6010B, 350.1, 8260B, 353.2	3/26/09	3/27/09			
R0901679-003	WG-5513-032609-003	Water	351.2, 6010B, 350.1, 8260B, 353.2	3/26/09	3/27/09			
R0901679-004	WG-5513-032609-004	Water	351.2, 6010B, 350.1, 8260B, 353.2	3/26/09	3/27/09			
R0901679-005	WG-5513-032609-005	Water	351.2, 6010B, 350.1, 8260B, 353.2	3/26/09	3/27/09			
R0901679-006	WG-5513-032609-006	Water	351.2, 6010B, 350.1, 8260B, 353.2	3/26/09	3/27/09			
R0901679-007	WG-5513-032609-007	Water	351.2, 6010B, 350.1, 8260B, 353.2	3/26/09	3/27/09			
R0901679-008	WG-5513-032609-008	Water	351.2, 6010B, 350.1, 8260B, 353.2	3/26/09	3/27/09			
R0901679-009	TB-5513-032609	Water	8260B	3/26/09	3/27/09			
R0901679-010	WG-5513-032609-001 SOL	Water	6010B	3/26/09	3/27/09			
R0901679-011	WG-5513-032609-002 SOL	Water	6010B	3/26/09	3/27/09			
R0901679-012	WG-5513-032609-003 SOL	Water	6010B	3/26/09	3/27/09			
R0901679-013	WG-5513-032609-004 SOL	Water	6010B	3/26/09	3/27/09			
R0901679-014	WG-5513-032609-005 SOL	Water	6010B	3/26/09	3/27/09			
R0901679-015	WG-5513-032609-006 SOL	Water	6010B	3/26/09	3/27/09			
R0901679-016	WG-5513-032609-007 SOL	Water	6010B	3/26/09	3/27/09			
R0901679-017	WG-5513-032609-008 SOL	Water	6010B	3/26/09	3/27/09			

00001



## REPORT QUALIFIERS

- U - Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.
- J - Indicates an estimated value. The flag is used either when estimating a concentration for tentatively identified compounds, or when the concentration is less than the reporting limit and greater than the MDL (concentrations are not verified within the initial calibration range).  
  
For DoD reports, the J-flag may also be used to indicate that the concentration between two columns for pesticides/Aroclors is greater than 40% difference.
- B - Indicates this compound was also detected in the associated method blank at a concentration that may have contributed to the sample result.
- B- Metals - Indicates an estimated value. The concentration is less than the reporting limit and greater than the MDL (concentrations are not verified within the initial calibration range).
- E - Indicates that the sample concentration had exceeded the calibration range for that specific analysis.
- D - Indicates the sample concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range.
- \* - Indicates that a quality control parameter has exceeded laboratory limits.
- X - See Case Narrative for discussion.
- P - This flag is used for a pesticide/Aroclor target concentration when there is a greater than 40% (25% for CLP) difference for detected concentrations between the two GC columns.  
  
For DoD reports, the J-flag is used instead of "P".
- N - Inorganics- Indicates the matrix spike recovery was outside laboratory limits.
- N- Organics- Indicates presumptive evidence of a compound (reported as a tentatively identified compound) based on the mass spectral library search.



### **CAS/Rochester Lab ID # for State Certifications<sup>1</sup>**

NELAP Accredited	Nevada ID # NY-00032
Delaware Accredited	New Jersey ID # NY004
Connecticut ID # PH0556	New York ID # 10145
Florida ID # E87674	New Hampshire ID # 294100 A/B
Illinois ID #200047	Pennsylvania ID# 68-786
Maine ID #NY0032	Rhode Island ID # 158
Nebraska Accredited	West Virginia ID # 292
Navy Facilities Engineering Service Center Approved	

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to the certifications section at [www.caslab.com](http://www.caslab.com).



## INORGANIC QUALIFIERS

### C (Concentration) qualifier –

- B - if the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but was greater than or equal to the Instrument Detection Limit (IDL). This qualifier may also be used to indicate that there was contamination above the reporting limit in the associated blank. See Narrative for details.
- U - if the analyte was analyzed for, but not detected

### Q qualifier - Specified entries and their meanings are as follows:

- D - Spike was diluted out
- E - The reported value is estimated because the serial dilution did not meet criteria.
- J - Estimated Value
- M - Duplicate injection precision not met.
- N - Spiked sample recovery not within control limits.
- S - The reported value was determined by the Method of Standard Additions (MSA).
- W - Post-digestion spike for Furnace AA Analysis is out of control limits (85-115), while sample absorbance is less than 50% of spike absorbance.
- \* - Duplicate analysis not within control limits.
- + - Correlation coefficient for the MSA is less than 0.995.

### M (Method) qualifier:

- "P" for ICP
- "A" for Flame AA
- "F" for Furnace AA
- "PM" for ICP when Microwave Digestion is used
- "AM" for Flame AA when Microwave Digestion is used
- "FM" for Furnace M when Microwave Digestion is used
- "CV" for Manual Cold Vapor AA
- "AV" for Automated Cold Vapor AA
- "AF" for Automated Cold Vapor Atomic Fluorescence Spectrometry
- "CA" for Midi-Distillation Spectrophotometric
- "AS" for Semi-Automated Spectrophotometric
- "C" for Manual Spectrophotometric
- "T" for Titrimetric
- " " where no data has been entered
- "NR" if the analyte is not required to be analyzed.



### CAS/Rochester Lab ID # for State Certifications<sup>1</sup>

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Delaware Accredited	Nevada ID # NY-00032
Connecticut ID # PH0556	New Jersey ID # NY004
Florida ID # E87674	New York ID # 10145
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Maine ID #NY0032	Pennsylvania ID # 68-786
Navy Facilities Engineering Service Center Approved	West Virginia ID # 292

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to the certifications section at [www.caslab.com](http://www.caslab.com).

# **CHAINS OF CUSTODY**

## **INTERNAL CHAINS**



# CHAIN OF CUSTODY RECORD

**CONESTOGA-ROVERS & ASSOCIATES**  
 VT office  
 SHIPPED TO (Laboratory Name): **Columbia**  
 REFERENCE NUMBER: **5513-02**  
**U-CAR Annual Gw Sampling**

SAMPLER'S SIGNATURE: *David Tyrn* PRINTED NAME: **David Tyrn**  
 SAMPLE NO.

SEQ. No.	DATE	TIME	SAMPLE TYPE	No. of Containers	PARAMETERS	REMARKS
	3-26-09	0900	Water	2	3	MS/MSD
	1015			1	3	
	1100			1	3	
	1110			1	3	
	1300			1	3	
	1415			1	3	
	1245			1	3	
	1315			1	3	
			Lab Water	3	1	

TOTAL NUMBER OF CONTAINERS: **73** HEALTH/CHEMICAL HAZARDS: \_\_\_\_\_  
 RELINQUISHED BY: *David Tyrn* DATE: **3-26-09** TIME: **1445**  
 RECEIVED BY: *[Signature]* DATE: \_\_\_\_\_ TIME: \_\_\_\_\_  
 RELINQUISHED BY: *[Signature]* DATE: **3-27-09** TIME: **1415**  
 RECEIVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_  
 RELINQUISHED BY: \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_  
 RECEIVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

METHOD OF SHIPMENT: **Carrier**  
 SAMPLE TEAM: **D. Dietner D-Tyrn S. Gardner**  
 WAY BILL No. \_\_\_\_\_  
 RECEIVED FOR LABORATORY BY: *[Signature]* DATE: **3-27-09** TIME: **1415**  
**Nº CRA 18094**

### Cooler Receipt And Preservation Check Form

Project/Client CRA Submission Number RO9-11679

Cooler received on 3-27-09 by: NE COURIER: CAS UPS FEDEX VELOCITY CLIENT

1. Were custody seals on outside of cooler? YES NO
  2. Were custody papers properly filled out (ink, signed, etc.)? YES NO
  3. Did all bottles arrive in good condition (unbroken)? YES NO
  4. Did any VOA vials have significant\* air bubbles? YES NO N/A
  5. Were Ice or Ice packs present? YES NO
  6. Where did the bottles originate? CAS/ROC CLIENT
  7. Temperature of cooler(s) upon receipt: 6° 6°
- Is the temperature within 0° - 6° C?: Yes Yes Yes Yes Yes  
 If No, Explain Below No No No No No

Date/Time Temperatures Taken: 3-27-09 @ 14:43  
 Thermometer ID: 161 / IR GUN#2 IR GUN#3 Reading From: Temp Blank / Sample Bottle

If out of Temperature, note packing/ice condition, Client Approval to Run Samples: \_\_\_\_\_  
 PC Secondary Review: KB 3/30/09

Cooler Breakdown: Date: 3/27/09 by: AD

1. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
  2. Did all bottle labels and tags agree with custody papers? YES NO
  3. Were correct containers used for the tests indicated? YES NO
  4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A
- Explain any discrepancies: \_\_\_\_\_

pH	Reagent			Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
		YES	NO						
≥12	NaOH								
≤	HNO <sub>3</sub>	<u>✓</u>		<u>200526908</u>	<u>1/10</u>				
≤	H <sub>2</sub> SO <sub>4</sub>	<u>✓</u>		<u>110552400</u>	<u>1/10</u>				
Residual Chlorine (-)	For TCN and Phenol			If present, contact PM to add ascorbic acid					
	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	-	-			*Not to be tested before analysis - pH tested and recorded by VOAs or GenChem on a separate worksheet			
	Zn Aceta	-	-						
	HCl	*	*	<u>ESCA</u>					

Yes = All samples OK  
 No = Samples were preserved at lab as listed  
 PM OK to Adjust: \_\_\_\_\_

Bottle lot numbers: 035075, 8-330-001  
 Other Comments: \_\_\_\_\_

PC Secondary Review: [Signature]

\*significant air bubbles are greater than 5-6 mm

# Columbia Analytical Services, Inc.

## Chain of Custody Report

**Client:** Conestoga-Rovers & Associates, Inc.  
**Project:** UCAR Annual GE/ 5513-02

**Service Request:** R0901679

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
R0901679-001.01		3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-001 / HPUNDT	
		4/8/09	1210	In Lab / BBUSH	
		4/8/09	1544	R-001-S07 / BBUSH	
R0901679-001.02	8260B	3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-001 / HPUNDT	
R0901679-001.03		3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-001 / HPUNDT	
R0901679-001.04	350.1, 351.2	3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-002 / HPUNDT	
		4/6/09	1139	In Lab / SROBINSON	
		4/6/09	1558	R-002 / SROBINSON	
		4/9/09	0922	In Lab / NMEAD	
		4/9/09	1611	R-002 / VKANE	
R0901679-001.05	353.2	3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-002 / HPUNDT	
R0901679-001.07	6010B	3/27/09	1518	SMO / GESMERIAN	
		3/27/09	1638	R-A01 / HPUNDT	
		4/2/09	1032	In Lab / VKANE	
		4/2/09	1333	R-A01 / VKANE	
R0901679-001.08		3/27/09	1520	SMO / GESMERIAN	
		3/27/09	1637	R-001 / HPUNDT	
R0901679-001.09		3/27/09	1520	SMO / GESMERIAN	
		3/27/09	1637	R-001 / HPUNDT	
R0901679-001.10		3/27/09	1520	SMO / GESMERIAN	
		3/27/09	1637	R-001 / HPUNDT	
R0901679-001.11		3/27/09	1520	SMO / GESMERIAN	

# Columbia Analytical Services, Inc.

## Chain of Custody Report

**Client:** Conestoga-Rovers & Associates, Inc.  
**Project:** UCAR Annual GE/ 5513-02

**Service Request:** R0901679

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
		3/27/09	1637	R-001 / HPUNDT	
R0901679-001.12		3/27/09	1520	SMO / GESMERIAN	
		3/27/09	1637	R-001 / HPUNDT	
R0901679-001.13		3/27/09	1520	SMO / GESMERIAN	
		3/27/09	1637	R-001 / HPUNDT	
R0901679-001.14		3/27/09	1521	SMO / GESMERIAN	
		3/27/09	1637	R-002 / HPUNDT	
		4/6/09	1139	In Lab / SROBINSON	
		4/6/09	1558	R-002 / SROBINSON	
		4/9/09	0922	In Lab / NMEAD	
		4/9/09	1611	R-002 / VKANE	
R0901679-001.16		3/27/09	1521	SMO / GESMERIAN	
		3/27/09	1637	R-002 / HPUNDT	
R0901679-001.18		3/27/09	1521	SMO / GESMERIAN	
		3/27/09	1638	R-A01 / HPUNDT	
R0901679-001.20		3/27/09	1720	SMO / GESMERIAN	
		3/27/09	1638	R-002 / HPUNDT	
R0901679-001.21		3/27/09	1734	SMO / GESMERIAN	
		3/27/09	1638	R-A01 / HPUNDT	
R0901679-001.22		3/27/09	1734	SMO / GESMERIAN	
		3/27/09	1637	R-002 / HPUNDT	
R0901679-002.01		3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-001 / HPUNDT	
		4/8/09	1210	In Lab / BBUSH	
R0901679-002.02	8260B	3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-001 / HPUNDT	
		4/8/09	1544	R-001-S07 / BBUSH	
R0901679-002.03					

# Columbia Analytical Services, Inc.

## Chain of Custody Report

**Client:** Conestoga-Rovers & Associates, Inc.  
**Project:** UCAR Annual GE/ 5513-02

**Service Request:** R0901679

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
		3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-001 / HPUNDT	
R0901679-002.04	350.1, 351.2				
		3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-002 / HPUNDT	
		4/6/09	1139	In Lab / SROBINSON	
		4/6/09	1558	R-002 / SROBINSON	
		4/9/09	0923	In Lab / NMEAD	
		4/9/09	1612	R-002 / VKANE	
R0901679-002.05	353.2				
		3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-002 / HPUNDT	
R0901679-002.07	6010B				
		3/27/09	1518	SMO / GESMERIAN	
		3/27/09	1638	R-A01 / HPUNDT	
		4/2/09	1032	In Lab / VKANE	
		4/2/09	1333	R-A01 / VKANE	
R0901679-003.01					
		3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-001 / HPUNDT	
		4/8/09	1210	In Lab / BBUSH	
		4/8/09	1544	R-001-S07 / BBUSH	
R0901679-003.02	8260B				
		3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-001 / HPUNDT	
R0901679-003.03					
		3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-001 / HPUNDT	
R0901679-003.04	350.1, 351.2				
		3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-002 / HPUNDT	
		4/6/09	1139	In Lab / SROBINSON	
		4/6/09	1558	R-002 / SROBINSON	
		4/9/09	0922	In Lab / NMEAD	
		4/9/09	1611	R-002 / VKANE	
R0901679-003.05	353.2				

# Columbia Analytical Services, Inc.

## Chain of Custody Report

**Client:** Conestoga-Rovers & Associates, Inc.  
**Project:** UCAR Annual GE/ 5513-02

**Service Request:** R0901679

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
		3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-002 / HPUNDT	
R0901679-003.07	6010B				
		3/27/09	1518	SMO / GESMERIAN	
		3/27/09	1638	R-A01 / HPUNDT	
		4/2/09	1032	In Lab / VKANE	
		4/2/09	1333	R-A01 / VKANE	
R0901679-004.01	8260B				
		3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-001 / HPUNDT	
		4/8/09	1210	In Lab / BBUSH	
		4/8/09	1545	R-001-S07 / BBUSH	
R0901679-004.02					
		3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-001 / HPUNDT	
R0901679-004.03					
		3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-001 / HPUNDT	
R0901679-004.04	350.1, 351.2				
		3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-002 / HPUNDT	
		4/6/09	1139	In Lab / SROBINSON	
		4/6/09	1558	R-002 / SROBINSON	
		4/9/09	0922	In Lab / NMEAD	
		4/9/09	1611	R-002 / VKANE	
R0901679-004.05	353.2				
		3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-002 / HPUNDT	
R0901679-004.07	6010B				
		3/27/09	1518	SMO / GESMERIAN	
		3/27/09	1638	R-A01 / HPUNDT	
		4/2/09	1032	In Lab / VKANE	
		4/2/09	1333	R-A01 / VKANE	
R0901679-005.01	8260B				
		3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-001 / HPUNDT	

# Columbia Analytical Services, Inc.

## Chain of Custody Report

**Client:** Conestoga-Rovers & Associates , Inc.  
**Project:** UCAR Annual GE/ 5513-02

**Service Request:** R0901679

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
		4/8/09	1210	In Lab / BBUSH	
		4/8/09	1545	R-001-S07 / BBUSH	
R0901679-005.02		3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-001 / HPUNDT	
R0901679-005.03		3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-001 / HPUNDT	
R0901679-005.04	350.1, 351.2	3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-002 / HPUNDT	
		4/6/09	1139	In Lab / SROBINSON	
		4/6/09	1558	R-002 / SROBINSON	
		4/9/09	0922	In Lab / NMEAD	
		4/9/09	1611	R-002 / VKANE	
R0901679-005.05	353.2	3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-002 / HPUNDT	
R0901679-005.07	6010B	3/27/09	1518	SMO / GESMERIAN	
		3/27/09	1638	R-A01 / HPUNDT	
		4/2/09	1032	In Lab / VKANE	
		4/2/09	1333	R-A01 / VKANE	
R0901679-006.01		3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-001 / HPUNDT	
		4/8/09	1210	In Lab / BBUSH	
		4/8/09	1545	R-001-S07 / BBUSH	
R0901679-006.02	8260B	3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-001 / HPUNDT	
		4/9/09	1346	In Lab / BBUSH	
		4/9/09	1734	R-001-S07 / BBUSH	
R0901679-006.03		3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-001 / HPUNDT	
R0901679-006.04					

# Columbia Analytical Services, Inc.

## Chain of Custody Report

**Client:** Conestoga-Rovers & Associates , Inc.  
**Project:** UCAR Annual GE/ 5513-02

**Service Request:** R0901679

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
R0901679-006.05	350.1, 351.2	3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-002 / HPUNDT	
		4/6/09	1139	In Lab / SROBINSON	
		4/6/09	1559	R-002 / SROBINSON	
		4/9/09	0922	In Lab / NMEAD	
		4/9/09	1611	R-002 / VKANE	
		4/9/09	1611	R-002 / VKANE	
R0901679-006.07	6010B	3/27/09	1518	SMO / GESMERIAN	
		3/27/09	1638	R-A01 / HPUNDT	
		4/2/09	1032	In Lab / VKANE	
R0901679-007.01	8260B	3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-001 / HPUNDT	
		4/8/09	1210	In Lab / BBUSH	
		4/8/09	1545	R-001-S07 / BBUSH	
R0901679-007.02	8260B	3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-001 / HPUNDT	
		4/9/09	1346	In Lab / BBUSH	
		4/9/09	1734	R-001-S07 / BBUSH	
		4/9/09	1734	R-001-S07 / BBUSH	
R0901679-007.03		3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-001 / HPUNDT	
R0901679-007.04	350.1, 351.2	3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-002 / HPUNDT	
		4/6/09	1139	In Lab / SROBINSON	
		4/6/09	1559	R-002 / SROBINSON	
		4/9/09	0922	In Lab / NMEAD	
		4/9/09	1611	R-002 / VKANE	
		4/9/09	1611	R-002 / VKANE	
R0901679-007.05	353.2				



# Columbia Analytical Services, Inc.

## Chain of Custody Report

**Client:** Conestoga-Rovers & Associates , Inc.  
**Project:** UCAR Annual GE/ 5513-02

**Service Request:** R0901679

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
		3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-002 / HPUNDT	
R0901679-007.07	6010B				
		3/27/09	1518	SMO / GESMERIAN	
		3/27/09	1638	R-A01 / HPUNDT	
		4/2/09	1032	In Lab / VKANE	
		4/2/09	1333	R-A01 / VKANE	
R0901679-008.01	8260B				
		3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-001 / HPUNDT	
		4/8/09	1210	In Lab / BBUSH	
		4/8/09	1545	R-001-S07 / BBUSH	
R0901679-008.02					
		3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-001 / HPUNDT	
R0901679-008.03					
		3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-001 / HPUNDT	
R0901679-008.04	350.1, 351.2				
		3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-002 / HPUNDT	
		4/6/09	1139	In Lab / SROBINSON	
		4/6/09	1559	R-002 / SROBINSON	
		4/9/09	0923	In Lab / NMEAD	
		4/9/09	1612	R-002 / VKANE	
R0901679-008.05	353.2				
		3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-002 / HPUNDT	
R0901679-008.07	6010B				
		3/27/09	1518	SMO / GESMERIAN	
		3/27/09	1638	R-A01 / HPUNDT	
		4/2/09	1032	In Lab / VKANE	
		4/2/09	1333	R-A01 / VKANE	
R0901679-009.01	8260B				
		3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-001 / HPUNDT	

# Columbia Analytical Services, Inc.

## Chain of Custody Report

**Client:** Conestoga-Rovers & Associates , Inc.  
**Project:** UCAR Annual GE/ 5513-02

**Service Request:** R0901679

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
		4/8/09	1210	In Lab / BBUSH	
		4/8/09	1545	R-001-S07 / BBUSH	
R0901679-009.02		3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-001 / HPUNDT	
R0901679-009.03		3/27/09	1516	SMO / GESMERIAN	
		3/27/09	1637	R-001 / HPUNDT	
R0901679-010.04	6010B	3/27/09	1518	SMO / GESMERIAN	
		3/27/09	1638	R-A01 / HPUNDT	
		4/2/09	1032	In Lab / VKANE	
		4/2/09	1333	R-A01 / VKANE	
R0901679-010.05		3/27/09	1520	SMO / GESMERIAN	
		3/27/09	1638	R-A01 / HPUNDT	
R0901679-010.06		3/27/09	1520	SMO / GESMERIAN	
		3/27/09	1638	R-A01 / HPUNDT	
R0901679-011.04	6010B	3/27/09	1518	SMO / GESMERIAN	
		3/27/09	1638	R-A01 / HPUNDT	
		4/2/09	1032	In Lab / VKANE	
		4/2/09	1332	R-A01 / VKANE	
R0901679-012.04	6010B	3/27/09	1518	SMO / GESMERIAN	
		3/27/09	1638	R-A01 / HPUNDT	
		4/2/09	1032	In Lab / VKANE	
		4/2/09	1333	R-A01 / VKANE	
R0901679-013.04	6010B	3/27/09	1518	SMO / GESMERIAN	
		3/27/09	1638	R-A01 / HPUNDT	
		4/2/09	1032	In Lab / VKANE	
		4/2/09	1333	R-A01 / VKANE	
R0901679-014.04	6010B	3/27/09	1518	SMO / GESMERIAN	

# Columbia Analytical Services, Inc.

## Chain of Custody Report

**Client:** Conestoga-Rovers & Associates , Inc.  
**Project:** UCAR Annual GE/ 5513-02

**Service Request:** R0901679

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
		3/27/09	1638	R-A01 / HPUNDT	
		4/2/09	1032	In Lab / VKANE	
		4/2/09	1332	R-A01 / VKANE	
<hr/>					
R0901679-015.04	6010B				
		3/27/09	1518	SMO / GESMERIAN	
		3/27/09	1638	R-A01 / HPUNDT	
		4/2/09	1032	In Lab / VKANE	
		4/2/09	1332	R-A01 / VKANE	
<hr/>					
R0901679-016.04	6010B				
		3/27/09	1518	SMO / GESMERIAN	
		3/27/09	1638	R-A01 / HPUNDT	
		4/2/09	1032	In Lab / VKANE	
		4/2/09	1332	R-A01 / VKANE	
<hr/>					
R0901679-017.04	6010B				
		3/27/09	1518	SMO / GESMERIAN	
		3/27/09	1638	R-A01 / HPUNDT	
		4/2/09	1032	In Lab / VKANE	
		4/2/09	1333	R-A01 / VKANE	

# **VOLATILE ORGANICS**

## **QC SUMMARY**

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water

**Service Request:** R0901679  
**Date Collected:** 3/26/09  
**Date Received:** 3/27/09  
**Date Analyzed:** 4/ 8/09

**Matrix Spike Summary  
 Volatile Organic Compounds by GC/MS**

**Sample Name:** WG-5513-032609-001  
**Lab Code:** R0901679-001

**Units:** µg/L  
**Basis:** NA

**Analytical Method:** 8260B

Analyte Name	Sample Result	Matrix Spike RQ0902333-03			Duplicate Matrix Spike RQ0902333-04			% Rec Limits	RPD	RPD Limit
		Result	Expected	% Rec	Result	Expected	% Rec			
1,1,1-Trichloroethane (TCA)	ND	63.6	50.0	127	55.7	50.0	111	70 - 130	13	30
1,1,2,2-Tetrachloroethane	ND	48.3	50.0	97	44.7	50.0	89	70 - 130	8	30
1,1,2-Trichloroethane	ND	49.4	50.0	99	44.2	50.0	88	70 - 130	11	30
1,1-Dichloroethane (1,1-DCA)	ND	56.8	50.0	114	52.7	50.0	105	70 - 130	7	30
1,1-Dichloroethane (1,1-DCE)	ND	52.1	50.0	104	50.1	50.0	100	70 - 130	4	30
1,2-Dichloroethane	ND	55.4	50.0	111	54.6	50.0	109	70 - 130	1	30
1,2-Dichloroethane, Total	20	127	100	106	120	100	100	70 - 130	5	30
1,2-Dichloropropane	ND	53.0	50.0	106	51.3	50.0	103	70 - 130	3	30
2-Butanone (MEK)	ND	56.9	50.0	114	52.7	50.0	105	50 - 150	8	30
2-Hexanone	ND	52.8	50.0	106	48.1	50.0	96	70 - 130	9	30
4-Methyl-2-pentanone	ND	53.5	50.0	107	50.0	50.0	100	70 - 130	7	30
Acetone	ND	56.0	50.0	112	52.5	50.0	105	50 - 150	6	30
Benzene	ND	52.1	50.0	104	49.3	50.0	99	70 - 130	6	30
Bromodichloromethane	ND	53.9	50.0	108	51.8	50.0	104	70 - 130	4	30
Bromoform	ND	50.4	50.0	101	44.1	50.0	88	70 - 130	13	30
Bromomethane	ND	42.3	50.0	85	45.6	50.0	91	50 - 150	7	30
Carbon Disulfide	ND	48.0	50.0	96	46.0	50.0	92	70 - 130	4	30
Carbon Tetrachloride	ND	56.6	50.0	113	54.8	50.0	110	70 - 130	3	30
Chlorobenzene	ND	51.6	50.0	103	46.3	50.0	93	70 - 130	11	30
Chloroethane	ND	55.5	50.0	111	49.8	50.0	100	70 - 130	11	30
Chloroform	ND	61.2	50.0	122	55.2	50.0	110	70 - 130	10	30
Chloromethane	ND	63.6	50.0	127	54.7	50.0	109	70 - 130	15	30
Dibromochloromethane	ND	51.1	50.0	102	45.4	50.0	91	70 - 130	12	30
Methylene Chloride	ND	52.4	50.0	105	47.7	50.0	95	70 - 130	9	30
Ethylbenzene	ND	51.8	50.0	104	46.6	50.0	93	70 - 130	11	30
Styrene	ND	40.8	50.0	82	38.4	50.0	77	70 - 130	6	30
Tetrachloroethene (PCE)	ND	53.6	50.0	107	46.6	50.0	93	70 - 130	14	30
Toluene	ND	51.5	50.0	103	45.6	50.0	91	70 - 130	12	30
Trichloroethene (TCE)	7.4	59.6	50.0	104	57.2	50.0	100	70 - 130	4	30
Vinyl Chloride	3.5	63.8	50.0	120	59.4	50.0	112	70 - 130	7	30
Xylenes, Total	ND	154	150	103	136	150	91	70 - 130	12	30
cis-1,3-Dichloropropene	ND	52.6	50.0	105	49.9	50.0	100	70 - 130	5	30
trans-1,3-Dichloropropene	ND	48.6	50.0	97	42.8	50.0	86	70 - 130	13	30

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water

**Service Request:** R0901679  
**Date Analyzed:** 4/ 8/09

**Lab Control Sample Summary  
 Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

**Units:** µg/L  
**Basis:** NA

**Analysis Lot:** 149068

Analyte Name	Lab Control Sample RQ0902333-02			% Rec Limits
	Result	Expected	% Rec	
1,1,1-Trichloroethane (TCA)	23.0	20.0	115	70 - 130
1,1,2,2-Tetrachloroethane	20.0	20.0	100	70 - 130
1,1,2-Trichloroethane	20.2	20.0	101	70 - 130
1,1-Dichloroethane (1,1-DCA)	22.0	20.0	110	70 - 130
1,1-Dichloroethene (1,1-DCE)	20.8	20.0	104	70 - 130
1,2-Dichloroethane	22.1	20.0	111	70 - 130
1,2-Dichloroethene, Total	42.0	40	105	70 - 130
1,2-Dichloropropane	21.5	20.0	107	70 - 130
2-Butanone (MEK)	21.6	20	108	50 - 150
2-Hexanone	20.3	20	102	70 - 130
4-Methyl-2-pentanone	21.1	20	106	70 - 130
Acetone	18.9	20	94	50 - 150
Benzene	21.4	20.0	107	70 - 130
Bromodichloromethane	22.1	20.0	110	70 - 130
Bromoform	20.1	20.0	101	70 - 130
Bromomethane	19.1	20.0	96	50 - 150
Carbon Disulfide	19.5	20	97	70 - 130
Carbon Tetrachloride	22.5	20.0	112	70 - 130
Chlorobenzene	20.0	20.0	100	70 - 130
Chloroethane	20.8	20.0	104	70 - 130
Chloroform	23.0	20.0	115	70 - 130
Chloromethane	21.9	20.0	110	70 - 130
Dibromochloromethane	20.5	20.0	103	70 - 130
Methylene Chloride	20.4	20.0	102	70 - 130
Ethylbenzene	20.6	20.0	103	70 - 130
Styrene	21.6	20.0	108	70 - 130
Tetrachloroethene (PCE)	20.8	20.0	104	70 - 130
Toluene	20.2	20.0	101	70 - 130
Trichloroethene (TCE)	20.6	20.0	103	70 - 130
Vinyl Chloride	22.3	20.0	112	70 - 130
Xylenes, Total	61.4	60.0	102	70 - 130
cis-1,3-Dichloropropene	21.4	20.0	107	70 - 130
trans-1,3-Dichloropropene	19.8	20.0	99	70 - 130

Comments: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water

**Service Request:** R0901679  
**Date Analyzed:** 4/ 9/09

**Lab Control Sample Summary  
 Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

**Units:** µg/L  
**Basis:** NA

**Analysis Lot:** 149259

Analyte Name	Lab Control Sample RQ0902369-04			% Rec Limits
	Result	Expected	% Rec	
1,1,1-Trichloroethane (TCA)	25.5	20.0	127	70 - 130
1,1,2,2-Tetrachloroethane	20.4	20.0	102	70 - 130
1,1,2-Trichloroethane	21.7	20.0	109	70 - 130
1,1-Dichloroethane (1,1-DCA)	25.3	20.0	126	70 - 130
1,1-Dichloroethene (1,1-DCE)	22.8	20.0	114	70 - 130
1,2-Dichloroethane	23.7	20.0	118	70 - 130
1,2-Dichloroethene, Total	47.8	40	120	70 - 130
1,2-Dichloropropane	23.7	20.0	118	70 - 130
2-Butanone (MEK)	25.0	20	125	50 - 150
2-Hexanone	23.7	20	118	70 - 130
4-Methyl-2-pentanone	23.5	20	118	70 - 130
Acetone	23.9	20	120	50 - 150
Benzene	22.6	20.0	113	70 - 130
Bromodichloromethane	24.0	20.0	120	70 - 130
Bromoform	21.7	20.0	108	70 - 130
Bromomethane	21.5	20.0	108	50 - 150
Carbon Disulfide	24.4	20	122	70 - 130
Carbon Tetrachloride	24.1	20.0	120	70 - 130
Chlorobenzene	22.2	20.0	111	70 - 130
Chloroethane	22.9	20.0	114	70 - 130
Chloroform	25.2	20.0	126	70 - 130
Chloromethane	23.8	20.0	119	70 - 130
Dibromochloromethane	22.4	20.0	112	70 - 130
Methylene Chloride	22.5	20.0	113	70 - 130
Ethylbenzene	21.4	20.0	107	70 - 130
Styrene	23.9	20.0	120	70 - 130
Tetrachloroethene (PCE)	23.2	20.0	116	70 - 130
Toluene	21.0	20.0	105	70 - 130
Trichloroethene (TCE)	23.7	20.0	118	70 - 130
Vinyl Chloride	22.6	20.0	113	70 - 130
Xylenes, Total	65.1	60.0	109	70 - 130
cis-1,3-Dichloropropene	22.2	20.0	111	70 - 130
trans-1,3-Dichloropropene	20.7	20.0	103	70 - 130

**Comments:** \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water

**Service Request:** R0901679  
**Date Analyzed:** 4/ 9/09

**Lab Control Sample Summary  
 Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

**Units:** µg/L  
**Basis:** NA

**Analysis Lot:** 149502

Analyte Name	Lab Control Sample RQ0902441-02			% Rec Limits
	Result	Expected	% Rec	
1,1,1-Trichloroethane (TCA)	21.4	20.0	107	70 - 130
1,1,2,2-Tetrachloroethane	20.9	20.0	104	70 - 130
1,1,2-Trichloroethane	20.2	20.0	101	70 - 130
1,1-Dichloroethane (1,1-DCA)	20.8	20.0	104	70 - 130
1,1-Dichloroethene (1,1-DCE)	19.6	20.0	98	70 - 130
1,2-Dichloroethane	23.1	20.0	115	70 - 130
1,2-Dichloroethene, Total	39.7	40	99	70 - 130
1,2-Dichloropropane	21.2	20.0	106	70 - 130
2-Butanone (MEK)	23.2	20	116	50 - 150
2-Hexanone	22.2	20	111	70 - 130
4-Methyl-2-pentanone	22.4	20	112	70 - 130
Acetone	21.7	20	108	50 - 150
Benzene	21.7	20.0	108	70 - 130
Bromodichloromethane	21.4	20.0	107	70 - 130
Bromoform	20.2	20.0	101	70 - 130
Bromomethane	18.3	20.0	91	50 - 150
Carbon Disulfide	21.4	20	107	70 - 130
Carbon Tetrachloride	21.6	20.0	108	70 - 130
Chlorobenzene	19.0	20.0	95	70 - 130
Chloroethane	20.3	20.0	101	70 - 130
Chloroform	21.9	20.0	110	70 - 130
Chloromethane	20.7	20.0	104	70 - 130
Dibromochloromethane	20.2	20.0	101	70 - 130
Methylene Chloride	20.3	20.0	102	70 - 130
Ethylbenzene	19.3	20.0	97	70 - 130
Styrene	20.3	20.0	101	70 - 130
Tetrachloroethene (PCE)	19.8	20.0	99	70 - 130
Toluene	19.2	20.0	96	70 - 130
Trichloroethene (TCE)	20.5	20.0	103	70 - 130
Vinyl Chloride	22.5	20.0	112	70 - 130
Xylenes, Total	58.2	60.0	97	70 - 130
cis-1,3-Dichloropropene	22.0	20.0	110	70 - 130
trans-1,3-Dichloropropene	20.2	20.0	101	70 - 130

Comments: \_\_\_\_\_



4A  
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

**METBLK01**

Lab Name: CASROCH Contract: CRA  
 Lab Code: 10145 Case No.: R09-1679 SAS No.: SDG No.: 5513-02  
 Lab File ID: M7582.D Lab Sample ID: RQ0902333-01  
 Date Analyzed: 04/08/09 Time Analyzed: 12:56  
 GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N  
 Instrument ID: MS#7

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS01	RQ0902333-02	M7579.D	10:58
02	032609-002	R0901679-002 1.0	M7592.D	19:28
03	032609-001	R0901679-001 1.0	M7593.D	20:06
04	032609-001MS	RQ0902333-03	M7594.D	20:45
05	032609-001MSD	RQ0902333-04	M7595.D	21:24

COMMENTS:

4A  
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

**METBLK02**

Lab Name: CASROCH Contract: CRA  
 Lab Code: 10145 Case No.: R09-1679 SAS No.: \_\_\_\_\_ SDG No.: 5513-02  
 Lab File ID: M7602.D Lab Sample ID: RQ0902369-03  
 Date Analyzed: 04/09/09 Time Analyzed: 01:46  
 GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N  
 Instrument ID: MS#7

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS02	RQ0902369-04	M7600.D	00:28
02	TB-032609	R0901679-009 1.0	M7603.D	02:24
03	032609-004	R0901679-004 1.0	M7605.D	03:42
04	032609-005	R0901679-005 1.0	M7606.D	04:21
05	032609-008	R0901679-008 1.0	M7607.D	04:59
06	032609-007	R0901679-007 2.5	M7609.D	06:17
07	032609-003	R0901679-003 1.0	M7612.D	08:13

COMMENTS:

4A  
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

**METBLK03**

Lab Name: CASROCH Contract: CRA  
Lab Code: 10145 Case No.: R09-1679 SAS No.: SDG No.: 5513-02  
Lab File ID: M7621.D Lab Sample ID: RQ0902441-01  
Date Analyzed: 04/09/09 Time Analyzed: 14:09  
GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N  
Instrument ID: MS#7

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS03	RQ0902441-02	M7619.D	12:50
02	032609-006	R0901679-006 1.0	M7622.D	14:48
03	032609-007DL	R0901679-007 5.0	M7623.D	15:27

COMMENTS:

5A  
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: CASROCH Contract: TETRA  
 Lab Code: 10145 Case No.: R9-1602 SAS No.: SDG No.: MW-14  
 Lab File ID: M6752.D BFB Injection Date: 03/05/09  
 Instrument ID: MS#7 BFB Injection Time: 15:45  
 GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.8
75	30.0 - 60.0% of mass 95	48.1
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.2 ( 0.3 )1
174	50.0 - 120.0% of mass 95	70.3
175	5.0 - 9.0% of mass 174	5.1 ( 7.3 )1
176	95.0 - 101.0% of mass 174	70.1 ( 99.7 )1
177	5.0 - 9.0% of mass 176	4.3 ( 6.1 )2

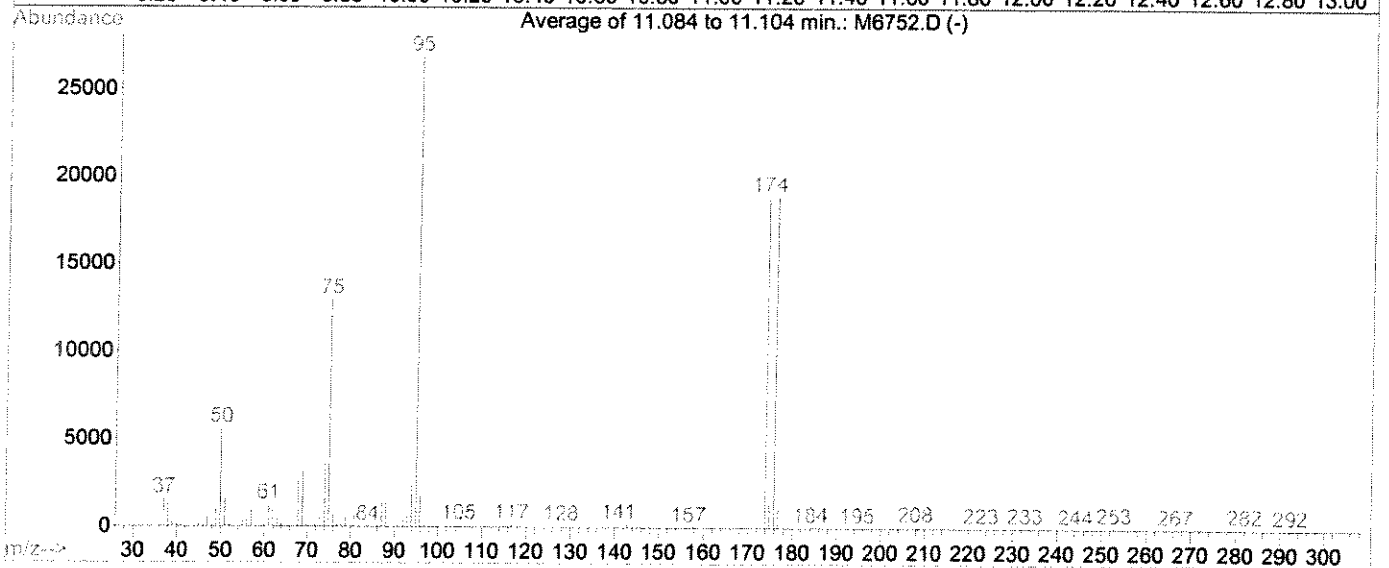
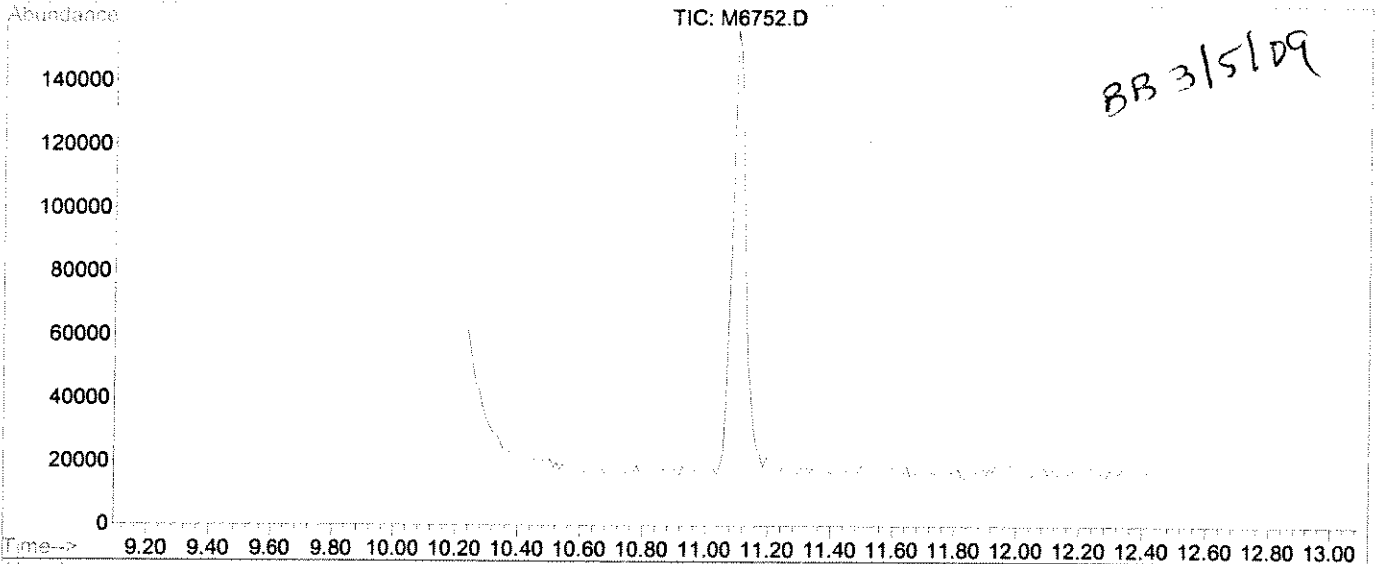
1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	0.5	0.5 PPB	M6754.D	03/05/09	16:58
02	1.0	1.0 PPB	M6755.D	03/05/09	17:35
03	2.0	2.0 PPB	M6756.D	03/05/09	18:12
04	5.0	5.0 PPB	M6757.D	03/05/09	18:49
05	20	20 PPB	M6758.D	03/05/09	19:26
06	50	50 PPB	M6759.D	03/05/09	20:03
07	100	100 PPB	M6760.D	03/05/09	20:40
08	200	200 PPB	M6761.D	03/05/09	21:16

Data File : J:\ACQUDATA\MSVOA7\DATA\030509\M6752.D Vial: 19  
 Acq On : 5 Mar 2009 3:45 pm Operator: B.Bush  
 Sample : TUNE Inst : MS #7  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Method : J:\ACQUDATA\MSVOA7\METHODS\WAT0206.M (RTE Integrator)  
 Title : 8260B.WATERS



AutoFind: Scans 87, 88, 89; Background Corrected with Scan 76

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.8	5608	PASS
75	95	30	60	48.1	12961	PASS
95	95	100	100	100.0	26946	PASS
96	95	5	9	6.6	1784	PASS
173	174	0.00	2	0.3	55	PASS
174	95	50	120	70.3	18933	PASS
175	174	5	9	7.3	1380	PASS
176	174	95	101	99.7	18882	PASS
177	176	5	9	6.1	1156	PASS

5A  
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: CASROCH Contract: CRA  
 Lab Code: 10145 Case No.: R09-1679 SAS No.: SDG No.: 5513-02  
 Lab File ID: M7577.D BFB Injection Date: 04/08/09  
 Instrument ID: MS#7 BFB Injection Time: 09:43  
 GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.3
75	30.0 - 60.0% of mass 95	47.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.0
173	Less than 2.0% of mass 174	0.0 ( 0.0)1
174	50.0 - 120.0% of mass 95	70.1
175	5.0 - 9.0% of mass 174	4.8 ( 6.9)1
176	95.0 - 101.0% of mass 174	69.8 ( 99.5)1
177	5.0 - 9.0% of mass 176	4.4 ( 6.3)2

1-Value is % mass 174

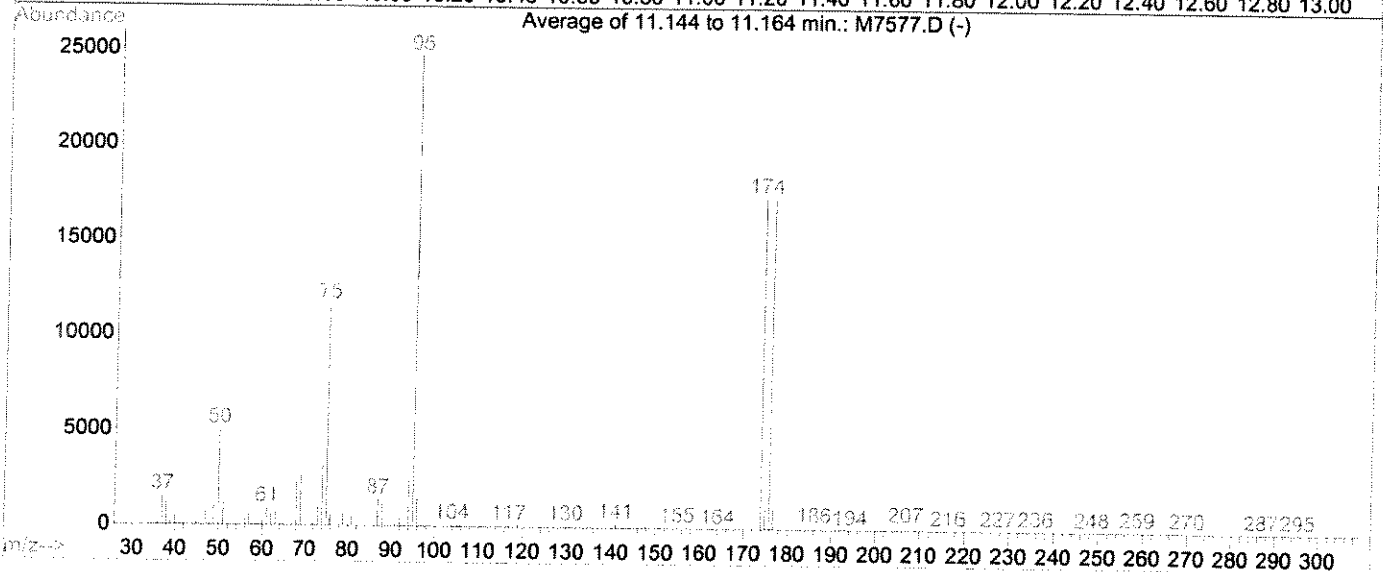
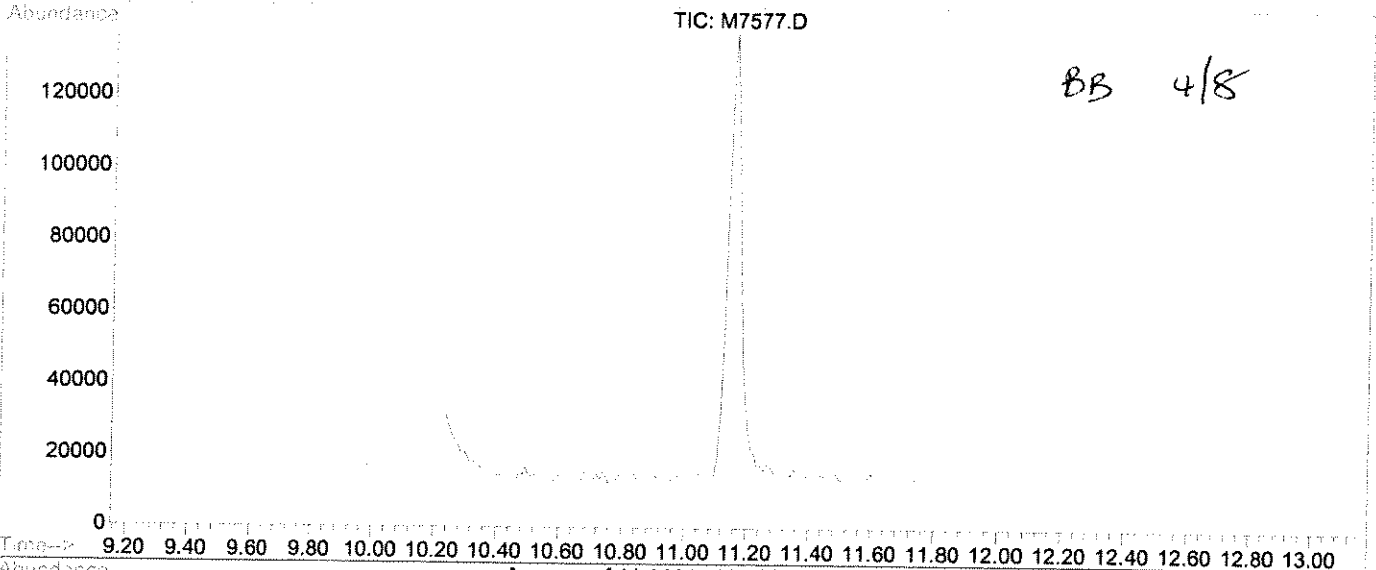
2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCV01	CCV01	M7578.D	04/08/09	10:19
02	LCS01	RQ0902333-02	M7579.D	04/08/09	10:58
03	METBLK01	RQ0902333-01	M7582.D	04/08/09	12:56
04	032609-002	R0901679-002 1.0	M7592.D	04/08/09	19:28
05	032609-001	R0901679-001 1.0	M7593.D	04/08/09	20:06
06	032609-001MS	RQ0902333-03	M7594.D	04/08/09	20:45
07	032609-001MSD	RQ0902333-04	M7595.D	04/08/09	21:24

Data File : J:\ACQUDATA\MSVOA7\DATA\040809\M7577.D  
 Acq On : 8 Apr 2009 9:43 am  
 Sample : TUNE  
 Misc :  
 MS Integration Params: RTEINT.P  
 Method : J:\ACQUDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS

Vial: 18  
 Operator: B.Bush  
 Inst : MS #7  
 Multiplr: 1.00



AutoFind: Scans 93, 94, 95; Background Corrected with Scan 83

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.3	5033	PASS
75	95	30	60	47.0	11621	PASS
95	95	100	100	100.0	24747	PASS
96	95	5	9	6.0	1478	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	70.1	17358	PASS
175	174	5	9	6.9	1200	PASS
176	174	95	101	99.5	17268	PASS
177	176	5	9	6.3	1090	PASS

5A  
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: CASROCH Contract: CRA  
 Lab Code: 10145 Case No.: R09-1679 SAS No.: SDG No.: 5513-02  
 Lab File ID: M7598.D BFB Injection Date: 04/08/09  
 Instrument ID: MS#7 BFB Injection Time: 23:14  
 GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.1
75	30.0 - 60.0% of mass 95	42.7
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.1
173	Less than 2.0% of mass 174	0.0 ( 0.0 )1
174	50.0 - 120.0% of mass 95	68.1
175	5.0 - 9.0% of mass 174	4.6 ( 6.7 )1
176	95.0 - 101.0% of mass 174	66.7 ( 97.9 )1
177	5.0 - 9.0% of mass 176	5.0 ( 7.6 )2

1-Value is % mass 174

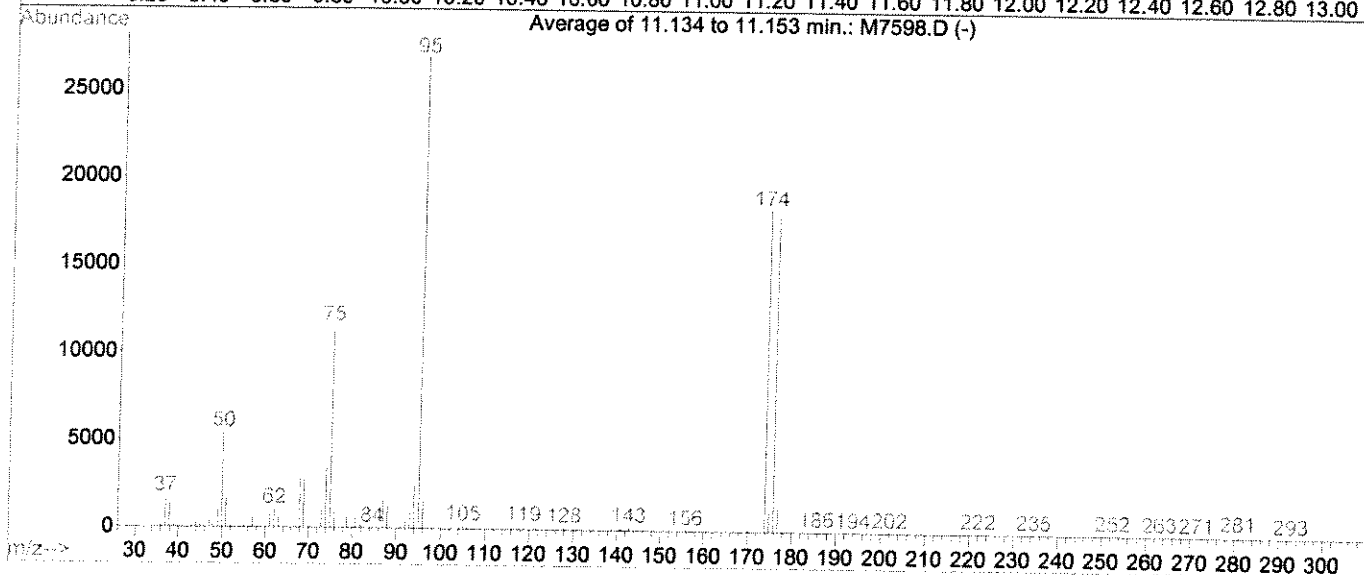
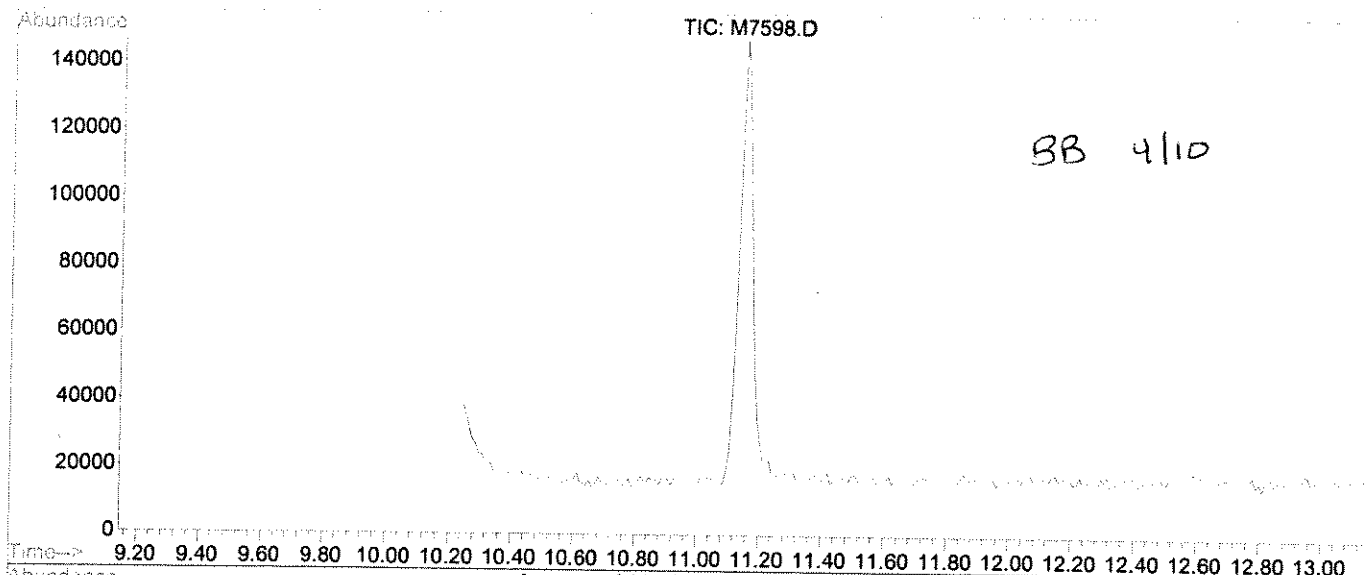
2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCV02	CCV02	M7599.D	04/08/09	23:49
02	LCS02	RQ0902369-04	M7600.D	04/09/09	00:28
03	METBLK02	RQ0902369-03	M7602.D	04/09/09	01:46
04	TB-032609	R0901679-009 1.0	M7603.D	04/09/09	02:24
05	032609-004	R0901679-004 1.0	M7605.D	04/09/09	03:42
06	032609-005	R0901679-005 1.0	M7606.D	04/09/09	04:21
07	032609-008	R0901679-008 1.0	M7607.D	04/09/09	04:59
08	032609-007	R0901679-007 2.5	M7609.D	04/09/09	06:17
09	032609-003	R0901679-003 1.0	M7612.D	04/09/09	08:13



Data File : J:\ACQUDATA\MSVOA7\DATA\040809\M7598.D Vial: 19  
 Acq On : 8 Apr 2009 11:14 pm Operator: B.Bush  
 Sample : TUNE Inst : MS #7  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Method : J:\ACQUDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS



AutoFind: Scans 92, 93, 94; Background Corrected with Scan 84

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.1	5422	PASS
75	95	30	60	42.7	11502	PASS
95	95	100	100	100.0	26924	PASS
96	95	5	9	6.1	1641	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	68.1	18340	PASS
175	174	5	9	6.7	1236	PASS
176	174	95	101	97.9	17951	PASS
177	176	5	9	7.6	1356	PASS

5A  
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: CASROCH Contract: CRA  
 Lab Code: 10145 Case No.: R09-1679 SAS No.: SDG No.: 5513-02  
 Lab File ID: M7617.D BFB Injection Date: 04/09/09  
 Instrument ID: MS#7 BFB Injection Time: 11:36  
 GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.6
75	30.0 - 60.0% of mass 95	43.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	5.7
173	Less than 2.0% of mass 174	0.0 ( 0.0)1
174	50.0 - 120.0% of mass 95	63.5
175	5.0 - 9.0% of mass 174	4.3 ( 6.8)1
176	95.0 - 101.0% of mass 174	63.7 ( 100.4)1
177	5.0 - 9.0% of mass 176	4.2 ( 6.5)2

1-Value is % mass 174

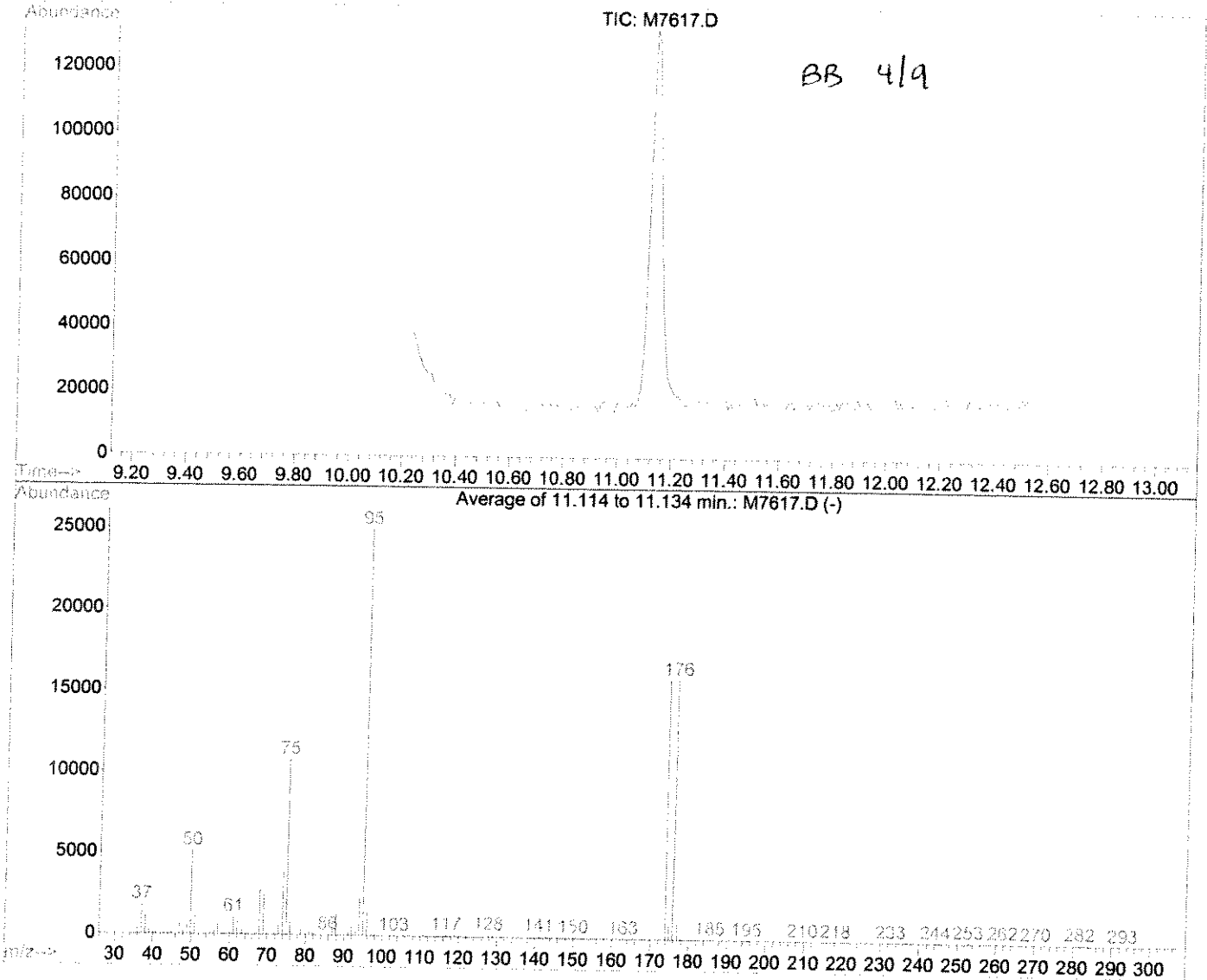
2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCV03	CCV03	M7618.D	04/09/09	12:11
02	LCS03	RQ0902441-02	M7619.D	04/09/09	12:50
03	METBLK03	RQ0902441-01	M7621.D	04/09/09	14:09
04	032609-006	R0901679-006 1.0	M7622.D	04/09/09	14:48
05	032609-007DL	R0901679-007 5.0	M7623.D	04/09/09	15:27

BFB

Data File : J:\ACQUDATA\MSVOA7\DATA\040909\M7617.D Vial: 18  
Acq On : 9 Apr 2009 11:36 am Operator: B.Bush  
Sample : TUNE Inst : MS #7  
Misc : Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Method : J:\ACQUDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
Title : 8260B.WATERS



AutoFind: Scans 90, 91, 92; Background Corrected with Scan 84

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.6	5158	PASS
75	95	30	60	43.0	10787	PASS
95	95	100	100	100.0	25059	PASS
96	95	5	9	5.7	1417	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	63.5	15901	PASS
175	174	5	9	6.8	1074	PASS
176	174	95	101	100.4	15959	PASS
177	176	5	9	6.5	1040	PASS

8A  
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CASROCH Contract: CRA  
 Lab Code: 10145 Case No.: R09-1679 SAS No.: SDG No.: 5513-02  
 Lab File ID (Standard): M7578.D Date Analyzed: 04/08/09  
 Instrument ID: MS#7 Time Analyzed: 10:19  
 GC Column: DB-624 ID: 0.25 (mm) Heated Purge (Y/N): *S X N*

		IS1		IS2		IS3	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD		556888	10.88	1061518	12.23	1129959	17.78
UPPER LIMIT		1113776	10.38	2123036	11.73	2259918	17.28
LOWER LIMIT		278444	11.38	530759	12.73	564980	18.28
EPA SAMPLE NO.							
01	LCS01	647857	10.89	1208393	12.23	1229234	17.78
02	METBLK01	579942	10.88	1042310	12.23	1116078	17.77
03	032609-002	529208	10.87	1014564	12.22	1029113	17.77
04	032609-001	572307	10.88	1032980	12.22	1101315	17.77
05	032609-001MS	549732	10.87	1073044	12.22	1083061	17.77
06	032609-001MSD	618936	10.88	1124465	12.22	1227086	17.77

IS1 = Pentafluorobenzene  
 IS2 = 1,4 - Difluorobenzene  
 IS3 = d5 - Chlorobenzene  
 IS4 = d4 - Dichlorobenzene

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

# Column to be used to flag values outside QC limit with an asterisk.  
 \* Values outside of contract required QC limits

8A  
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CASROCH Contract: CRA  
 Lab Code: 10145 Case No.: R09-1679 SAS No.: \_\_\_\_\_ SDG No.: 5513-02  
 Lab File ID (Standard): M7578.D Date Analyzed: 04/08/09  
 Instrument ID: MS#7 Time Analyzed: 10:19  
 GC Column: DB-624 ID: 0.25 (mm) Heated Purge (Y/N): Y N

		IS4					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD		559623	22.56				
UPPER LIMIT		1119246	22.06				
LOWER LIMIT		279812	23.06				
EPA SAMPLE NO.							
01	LCS01	614051	22.57				
02	METBLK01	516433	22.55				
03	032609-002	496627	22.55				
04	032609-001	522959	22.55				
05	032609-001M\$	551144	22.55				
06	032609-001M\$D	617714	22.55				

IS1 = Pentafluorobenzene  
 IS2 = 1,4 - Difluorobenzene  
 IS3 = d5 - Chlorobenzene  
 IS4 = d4 - Dichlorobenzene

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

# Column to be used to flag values outside QC limit with an asterisk.  
 \* Values outside of contract required QC limits

8A  
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CASROCH Contract: CRA  
 Lab Code: 10145 Case No.: R09-1679 SAS No.: \_\_\_\_\_ SDG No.: 5513-02  
 Lab File ID (Standard): M7599.D Date Analyzed: 04/08/09  
 Instrument ID: MS#7 Time Analyzed: 23:49  
 GC Column: DB-624 ID: 0.25 (mm) Heated Purge (Y/N): Y

		IS1		IS2		IS3	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD		623143	10.88	1198101	12.22	1187481	17.77
UPPER LIMIT		1246286	10.38	2396202	11.72	2374962	17.27
LOWER LIMIT		311572	11.38	599051	12.72	593741	18.27
EPA SAMPLE NO.							
01	LCS02	552753	10.87	1057222	12.22	1075526	17.77
02	METBLK02	553386	10.87	989508	12.22	1022379	17.77
03	TB-032609	627573	10.87	1163695	12.22	1181466	17.77
04	032609-004	557740	10.86	1071007	12.21	1102995	17.76
05	032609-005	603581	10.87	1112623	12.21	1136721	17.76
06	032609-008	555869	10.87	1051358	12.22	1103128	17.76
07	032609-007	579625	10.86	1006291	12.20	1100608	17.75
08	032609-003	593765	10.86	1104494	12.21	1100377	17.75

IS1 = Pentafluorobenzene  
 IS2 = 1,4 - Difluorobenzene  
 IS3 = d5 - Chlorobenzene  
 IS4 = d4 - Dichlorobenzene

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

# Column to be used to flag values outside QC limit with an asterisk.  
 \* Values outside of contract required QC limits

8A  
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CASROCH Contract: CRA  
 Lab Code: 10145 Case No.: R09-1679 SAS No.: \_\_\_\_\_ SDG No.: 5513-02  
 Lab File ID (Standard): M7599.D Date Analyzed: 04/08/09  
 Instrument ID: MS#7 Time Analyzed: 23:49  
 GC Column: DB-624 ID: 0.25 (mm) Heated Purge (Y/N): YN

		IS4					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD		615844	22.55				
UPPER LIMIT		1231688	22.05				
LOWER LIMIT		307922	23.05				
EPA SAMPLE NO.							
01	LCS02	527270	22.55				
02	METBLK02	493772	22.55				
03	TB-032609	546345	22.55				
04	032609-004	527892	22.54				
05	032609-005	547796	22.55				
06	032609-008	527203	22.55				
07	032609-007	509017	22.54				
08	032609-003	532633	22.54				

IS1 = Pentafluorobenzene  
 IS2 = 1,4 - Difluorobenzene  
 IS3 = d5 - Chlorobenzene  
 IS4 = d4 - Dichlorobenzene

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

# Column to be used to flag values outside QC limit with an asterisk.  
 \* Values outside of contract required QC limits

8A  
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CASROCH Contract: CRA  
 Lab Code: 10145 Case No.: R09-1679 SAS No.: \_\_\_\_\_ SDG No.: 5513-02  
 Lab File ID (Standard): M7618.D Date Analyzed: 04/09/09  
 Instrument ID: MS#7 Time Analyzed: 12:11  
 GC Column: DB-624 ID: 0.25 (mm) Heated Purge (Y/N): Y N

	IS1		IS2		IS3	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	649908	10.86	1210296	12.21	1208939	17.75
UPPER LIMIT	1299816	10.36	2420592	11.71	2417878	17.25
LOWER LIMIT	324954	11.36	605148	12.71	604470	18.25
EPA SAMPLE NO.						
01 LCS03	638115	10.86	1121424	12.20	1178280	17.75
02 METBLK03	630795	10.86	1106102	12.20	1160650	17.75
03 032609-006	600508	10.85	1116911	12.20	1132120	17.74
04 032609-007DL	593110	10.86	1130752	12.20	1168502	17.75

IS1 = Pentafluorobenzene  
 IS2 = 1,4 - Difluorobenzene  
 IS3 = d5 - Chlorobenzene  
 IS4 = d4 - Dichlorobenzene

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

# Column to be used to flag values outside QC limit with an asterisk.  
 \* Values outside of contract required QC limits



8A  
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CASROCH Contract: CRA  
 Lab Code: 10145 Case No.: R09-1679 SAS No.: \_\_\_\_\_ SDG No.: 5513-02  
 Lab File ID (Standard): M7618.D Date Analyzed: 04/09/09  
 Instrument ID: MS#7 Time Analyzed: 12:11  
 GC Column: DB-624 ID: 0.25 (mm) Heated Purge (Y/N): X,N

		IS4					
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12 HOUR STD	627599	22.54					
UPPER LIMIT	1255198	22.04					
LOWER LIMIT	313800	23.04					
EPA SAMPLE NO.							
01	LCS03	560502	22.53				
02	METBLK03	554696	22.53				
03	032609-006	541493	22.53				
04	032609-007DL	550410	22.53				

IS1 = Pentafluorobenzene  
 IS2 = 1,4 - Difluorobenzene  
 IS3 = d5 - Chlorobenzene  
 IS4 = d4 - Dichlorobenzene

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

# Column to be used to flag values outside QC limit with an asterisk.  
 \* Values outside of contract required QC limits

# **VOLATILE ORGANICS**

## **SAMPLE DATA**

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water  
**Sample Name:** WG-5513-032609-001  
**Lab Code:** R0901679-001

**Service Request:** R0901679  
**Date Collected:** 3/26/09 0900  
**Date Received:** 3/27/09  
**Units:** µg/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis	
								Lot	Lot Note
1,1,1-Trichloroethane (TCA)	0.45	U	5.0	0.45	1	NA	4/8/09 20:06		149068
1,1,2,2-Tetrachloroethane	0.44	U	5.0	0.44	1	NA	4/8/09 20:06		149068
1,1,2-Trichloroethane	0.45	U	5.0	0.45	1	NA	4/8/09 20:06		149068
1,1-Dichloroethane (1,1-DCA)	0.64	U	5.0	0.64	1	NA	4/8/09 20:06		149068
1,1-Dichloroethene (1,1-DCE)	0.59	U	5.0	0.59	1	NA	4/8/09 20:06		149068
1,2-Dichloroethane	0.42	U	5.0	0.42	1	NA	4/8/09 20:06		149068
1,2-Dichloroethene, Total	<b>20</b>		10	0.93	1	NA	4/8/09 20:06		149068
1,2-Dichloropropane	0.36	U	5.0	0.36	1	NA	4/8/09 20:06		149068
2-Butanone (MEK)	1.0	U	10	1.0	1	NA	4/8/09 20:06		149068
2-Hexanone	0.78	U	10	0.78	1	NA	4/8/09 20:06		149068
4-Methyl-2-pentanone	0.71	U	10	0.71	1	NA	4/8/09 20:06		149068
Acetone	1.2	U	20	1.2	1	NA	4/8/09 20:06		149068
Benzene	0.42	U	5.0	0.42	1	NA	4/8/09 20:06		149068
Bromodichloromethane	0.84	U	5.0	0.84	1	NA	4/8/09 20:06		149068
Bromoform	0.32	U	5.0	0.32	1	NA	4/8/09 20:06		149068
Bromomethane	0.58	U	5.0	0.58	1	NA	4/8/09 20:06		149068
Carbon Disulfide	0.52	U	10	0.52	1	NA	4/8/09 20:06		149068
Carbon Tetrachloride	0.36	U	5.0	0.36	1	NA	4/8/09 20:06		149068
Chlorobenzene	0.44	U	5.0	0.44	1	NA	4/8/09 20:06		149068
Chloroethane	0.36	U	5.0	0.36	1	NA	4/8/09 20:06		149068
Chloroform	0.22	U	5.0	0.22	1	NA	4/8/09 20:06		149068
Chloromethane	0.96	U	5.0	0.96	1	NA	4/8/09 20:06		149068
Dibromochloromethane	0.43	U	5.0	0.43	1	NA	4/8/09 20:06		149068
Methylene Chloride	0.50	U	5.0	0.50	1	NA	4/8/09 20:06		149068
Ethylbenzene	0.43	U	5.0	0.43	1	NA	4/8/09 20:06		149068
Styrene	0.37	U	5.0	0.37	1	NA	4/8/09 20:06		149068
Tetrachloroethene (PCE)	0.43	U	5.0	0.43	1	NA	4/8/09 20:06		149068
Toluene	0.42	U	5.0	0.42	1	NA	4/8/09 20:06		149068
Trichloroethene (TCE)	<b>7.4</b>		5.0	0.63	1	NA	4/8/09 20:06		149068
Vinyl Chloride	<b>3.5</b>	J	5.0	0.52	1	NA	4/8/09 20:06		149068
Xylenes, Total	1.5	U	5.0	1.5	1	NA	4/8/09 20:06		149068
cis-1,3-Dichloropropene	0.38	U	5.0	0.38	1	NA	4/8/09 20:06		149068
trans-1,3-Dichloropropene	0.25	U	5.0	0.25	1	NA	4/8/09 20:06		149068

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Conestoga-Rovers & Associates, Incorporated  
Project: UCAR Annual GE/ 5513-02  
Sample Matrix: Water  
Sample Name: WG-5513-032609-001  
Lab Code: R0901679-001

Service Request: R0901679  
Date Collected: 3/26/09 0900  
Date Received: 3/27/09  
Units: µg/L  
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Surrogate Name			%Rec	Control Limits		Date Analyzed	Q		Note	
4-Bromofluorobenzene			105	80-123		4/8/09 20:06				
Dibromofluoromethane			110	89-115		4/8/09 20:06				
Toluene-d8			94	88-124		4/8/09 20:06				

Comments:

Data File : J:\ACQUDATA\MSVOA7\DATA\040809\M7593.D  
 Acq On : 8 Apr 2009 8:06 pm  
 Sample : R0901679-001|1.0  
 Misc : CRA, 8260, 4769, T4  
 MS Integration Params: RTEINT.P  
 Quant Time: Apr 8 20:37 2009

Vial: 14  
 Operator: B.Bush  
 Inst : MS #7  
 Multiplr: 1.00

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.88	168	572307	50.00	ppb	0.04
42) 1,4 - Difluorobenzene	12.22	114	1032980	50.00	ppb	0.04
63) d5 - Chlorobenzene	17.77	117	1101315	50.00	ppb	0.04
86) d4 - Dichlorobenzene	22.55	152	522959	50.00	ppb	0.04

System Monitoring Compounds

44) surr4,Dibrflmethane	10.90	113	428437	54.75	ppb	0.04
Spiked Amount	50.000	Range	89 - 115	Recovery	=	109.50%
48) surr1,1,2-Dicethane	11.52	65	409442	55.14	ppb	0.04
Spiked Amount	50.000	Range	80 - 120	Recovery	=	110.28%
69) surr3,Toluene-d8	14.95	98	1212624	47.09	ppb	0.04
Spiked Amount	50.000	Range	88 - 124	Recovery	=	94.18%
70) surr2,bfb	20.11	95	609438	52.70	ppb	0.04
Spiked Amount	50.000	Range	80 - 123	Recovery	=	105.40%

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
4) Vinyl Chloride	4.87	62	22624	3.53	ppb	90
9) Diethyl Ether	6.70	59	4226	0.74	ppb #	73
14) 1,1-Dicethene	7.17	96	2139	0.39	ppb #	53
15) Acetone	7.21	43	2557	1.18	ppb	93
26) trans-1,2-Dichloroethene	8.44	96	2728	0.39	ppb #	89
35) cis-1,2-Dichloroethene	10.12	96	159829	20.37	ppb	99
<del>37) Methacrylonitrile</del>	<del>10.87</del>	<del>67</del>	<del>1266</del>	<del>0.47</del>	<del>ppb #</del>	<del>1</del>
53) Trichloroethene	12.75	95	59920	7.41	ppb	92
<del>57) 1,4-Dioxane</del>	<del>13.35</del>	<del>88</del>	<del>647</del>	<del>11.69</del>	<del>ppb #</del>	<del>26</del>
<del>64) 4-Methyl-2-Pentanone</del>	<del>14.93</del>	<del>43</del>	<del>3345</del>	<del>0.31</del>	<del>ppb #</del>	<del>1</del>

BB 4/10

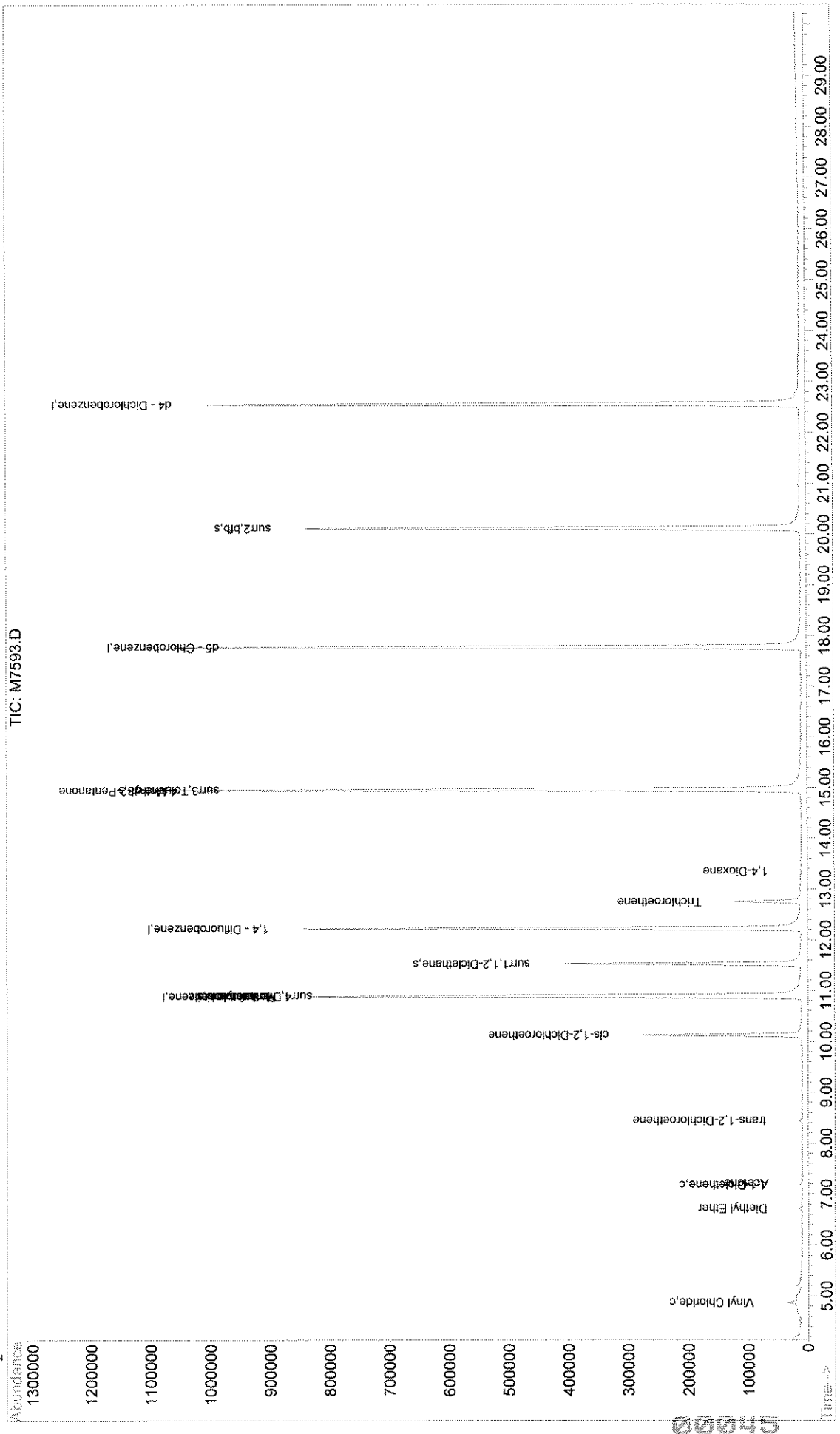
Quantitation Report

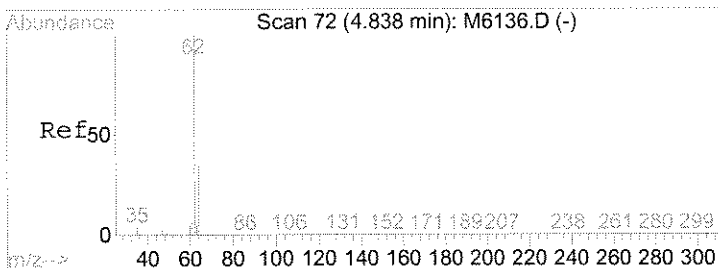
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Sample : R0901679-001|1.0  
Misc : CRA, 8260, 4769, T4  
MS Integration Params: RTEINT.P  
Quant Time: Apr 8 20:37 2009

Vial: 14  
Operator: B.Bush  
Inst : MS #7  
Multiplr: 1.00

Quant Results File: WAT0305.RES

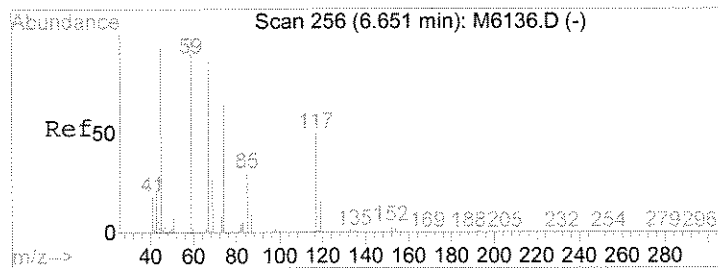
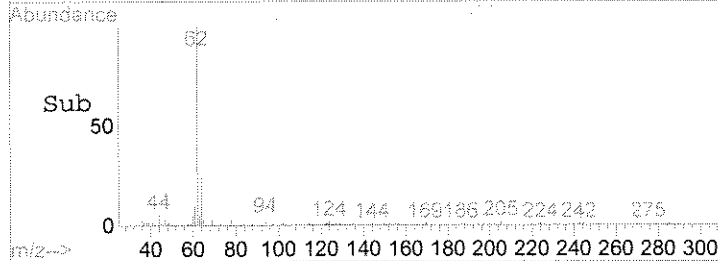
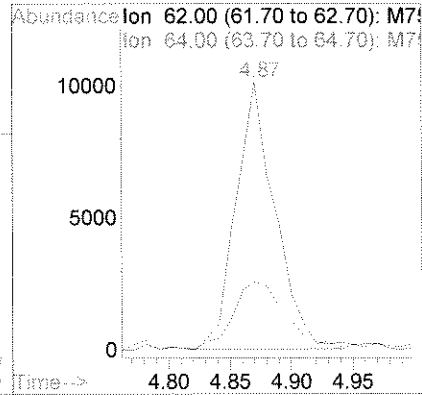
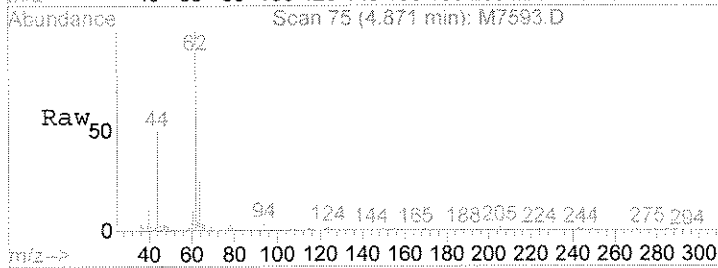
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Title : 8260B.WATERS  
Last Update : Fri Mar 13 15:29:46 2009  
Response via : Initial Calibration





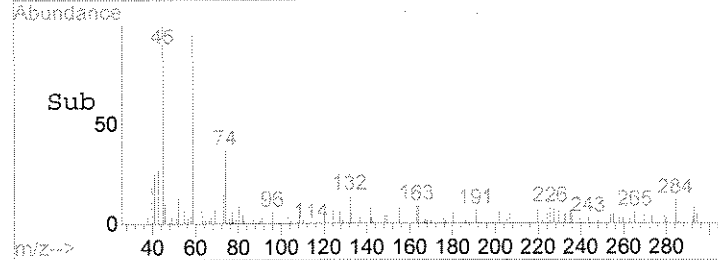
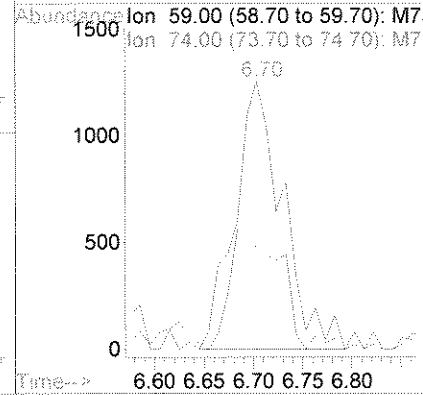
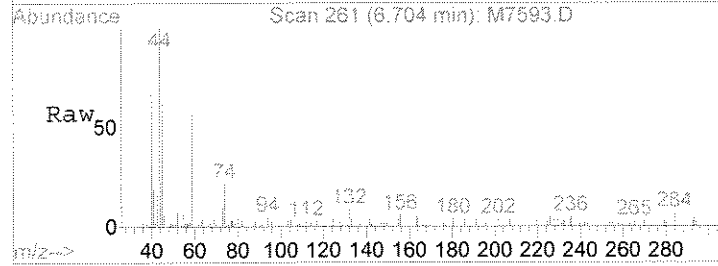
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 Vinyl Chloride  
 Concen: 3.53 ppb  
 RT: 4.87 min Scan# 75  
 Delta R.T. 0.02 min  
 Lab File: M7593.D  
 Acq: 8 Apr 2009 8:06 pm

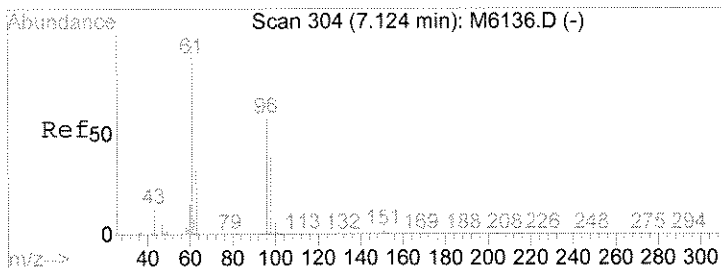
Tgt Ion: 62 Resp: 22624  
 Ion Ratio Lower Upper  
 62 100  
 64 25.5 25.0 37.4



#9  
 Diethyl Ether  
 Concen: 0.74 ppb  
 RT: 6.70 min Scan# 261  
 Delta R.T. 0.03 min  
 Lab File: M7593.D  
 Acq: 8 Apr 2009 8:06 pm

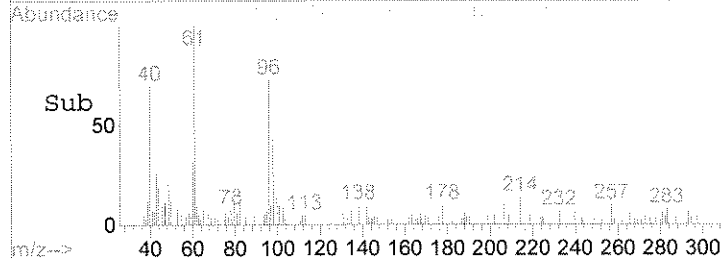
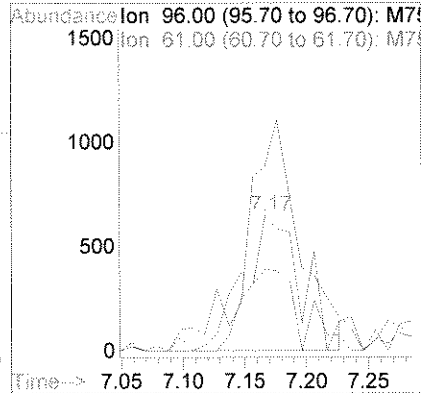
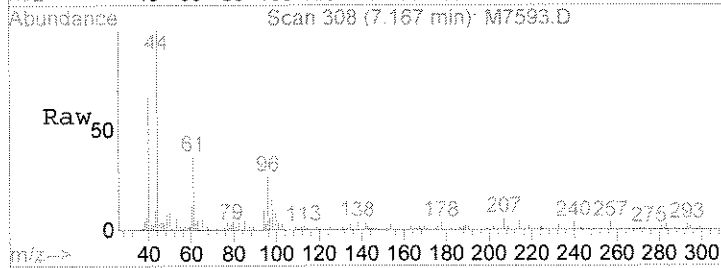
Tgt Ion: 59 Resp: 4226  
 Ion Ratio Lower Upper  
 59 100  
 74 38.1 43.6 72.7#





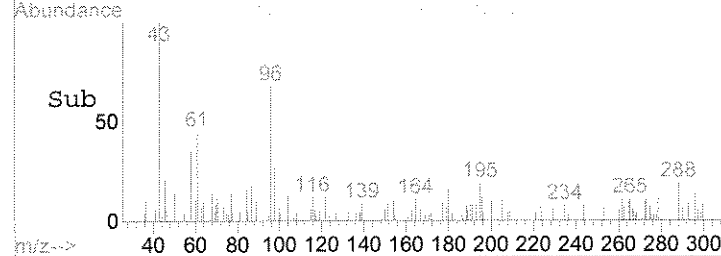
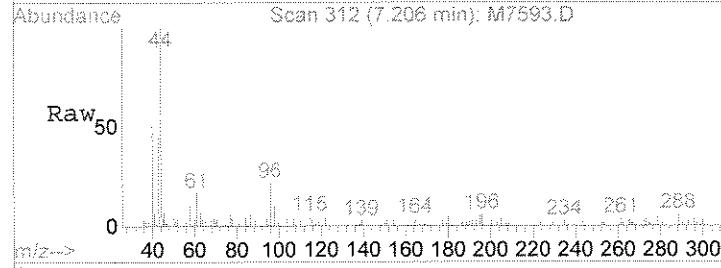
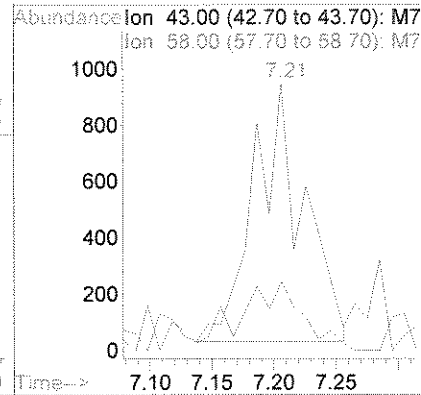
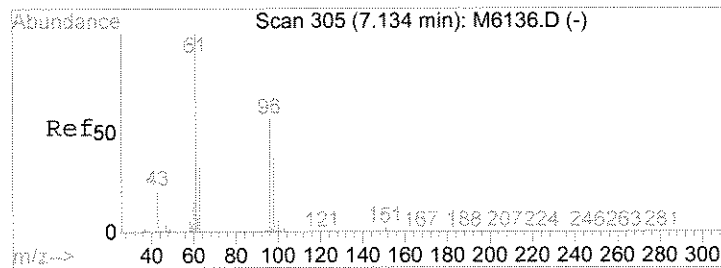
#14  
 1,1-Diclcethene  
 Concen: 0.39 ppb  
 RT: 7.17 min Scan# 308  
 Delta R.T. 0.03 min  
 Lab File: M7593.D  
 Acq: 8 Apr 2009 8:06 pm

Tgt Ion	Resp	Lower	Upper
96	2139		
61	112.9	158.9	238.3#
98	49.9	51.8	77.8#

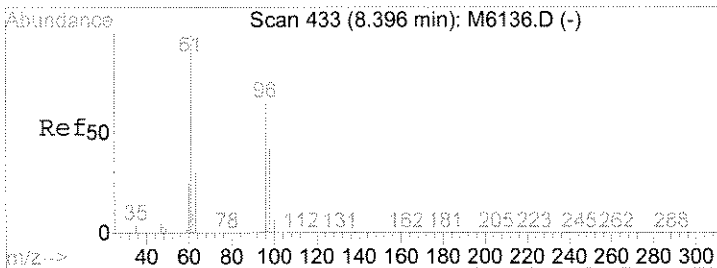


#15  
 Acetone  
 Concen: 1.18 ppb  
 RT: 7.21 min Scan# 312  
 Delta R.T. 0.04 min  
 Lab File: M7593.D  
 Acq: 8 Apr 2009 8:06 pm

Tgt Ion	Resp	Lower	Upper
43	2557		
58	25.7	23.6	35.4

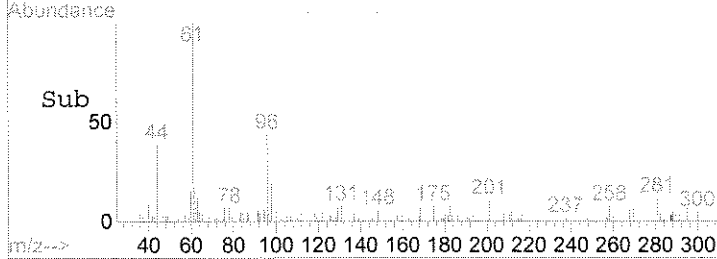
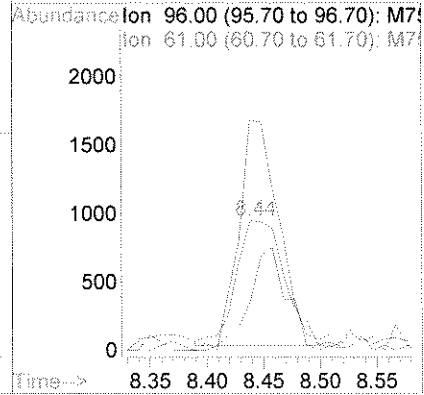
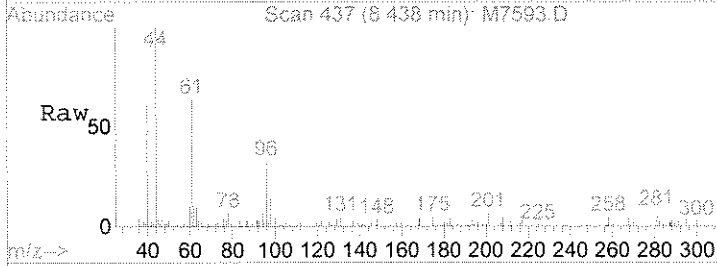






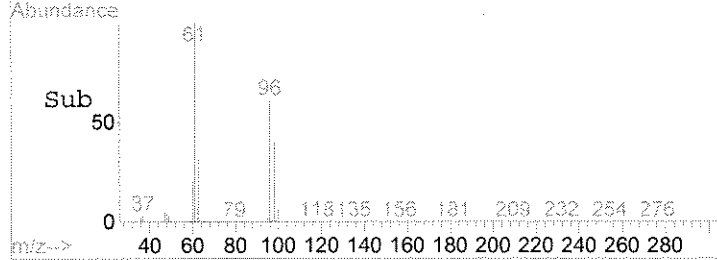
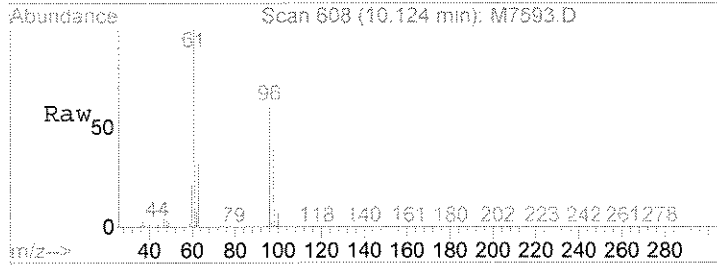
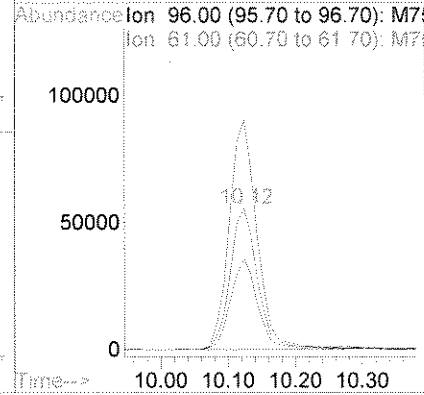
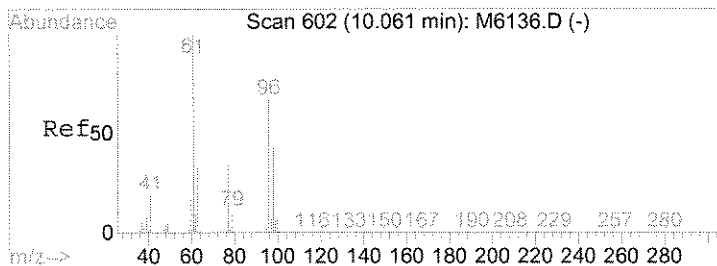
#26  
 trans-1,2-Dichloroethene  
 Concen: 0.39 ppb  
 RT: 8.44 min Scan# 437  
 Delta R.T. 0.02 min  
 Lab File: M7593.D  
 Acq: 8 Apr 2009 8:06 pm

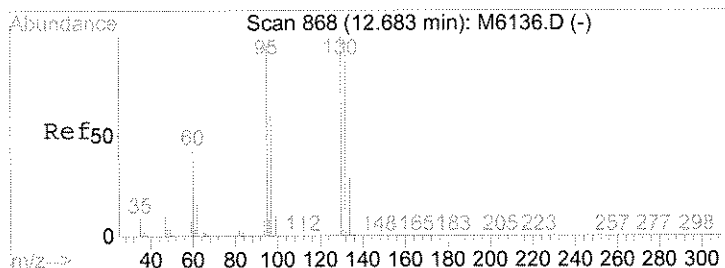
Tgt Ion	Resp	Lower	Upper
96	100		
61	177.7	139.4	209.0
98	37.7	52.4	78.6#



#35  
 cis-1,2-Dichloroethene  
 Concen: 20.37 ppb  
 RT: 10.12 min Scan# 608  
 Delta R.T. 0.04 min  
 Lab File: M7593.D  
 Acq: 8 Apr 2009 8:06 pm

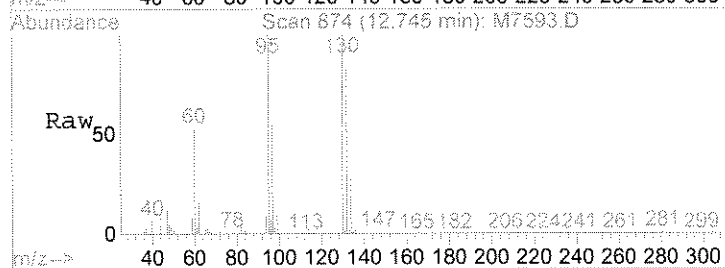
Tgt Ion	Resp	Lower	Upper
96	100		
61	163.5	132.2	198.2
98	64.8	51.7	77.5





#53  
 Trichloroethene  
 Concen: 7.41 ppb  
 RT: 12.75 min Scan# 874  
 Delta R.T. 0.03 min  
 Lab File: M7593.D  
 Acq: 8 Apr 2009 8:06 pm

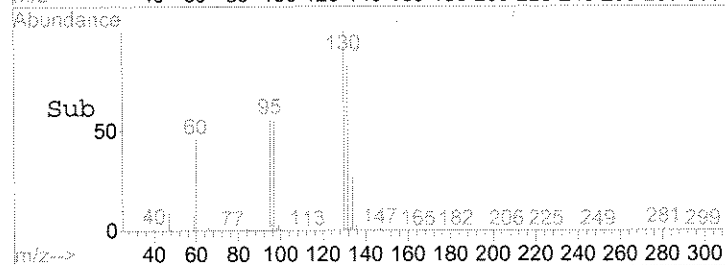
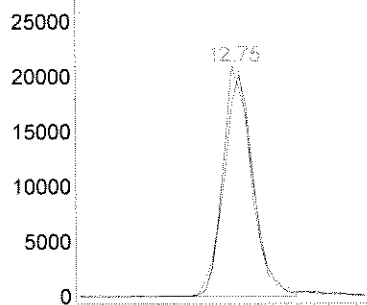
Tgt Ion:	95	Resp:	59920
Ion Ratio	Lower	Upper	
95	100		
130	100.1	77.4	116.2
132	83.5	76.2	114.4



Abundance

Ion 95.00 (94.70 to 95.70): M7

Ion 130.00 (129.70 to 130.70):



## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

Client: Conestoga-Rovers & Associates, Incorporated  
 Project: UCAR Annual GE/ 5513-02  
 Sample Matrix: Water  
 Sample Name: WG-5513-032609-002  
 Lab Code: R0901679-002

Service Request: R0901679  
 Date Collected: 3/26/09 1015  
 Date Received: 3/27/09  
 Units: µg/L  
 Basis: NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1-Trichloroethane (TCA)	0.45	U	5.0	0.45	1	NA	4/8/09 19:28		149068	
1,1,2,2-Tetrachloroethane	0.44	U	5.0	0.44	1	NA	4/8/09 19:28		149068	
1,1,2-Trichloroethane	0.45	U	5.0	0.45	1	NA	4/8/09 19:28		149068	
1,1-Dichloroethane (1,1-DCA)	0.64	U	5.0	0.64	1	NA	4/8/09 19:28		149068	
1,1-Dichloroethene (1,1-DCE)	0.59	U	5.0	0.59	1	NA	4/8/09 19:28		149068	
1,2-Dichloroethane	0.42	U	5.0	0.42	1	NA	4/8/09 19:28		149068	
1,2-Dichloroethene, Total	0.93	U	10	0.93	1	NA	4/8/09 19:28		149068	
1,2-Dichloropropane	0.36	U	5.0	0.36	1	NA	4/8/09 19:28		149068	
2-Butanone (MEK)	1.0	U	10	1.0	1	NA	4/8/09 19:28		149068	
2-Hexanone	0.78	U	10	0.78	1	NA	4/8/09 19:28		149068	
4-Methyl-2-pentanone	0.71	U	10	0.71	1	NA	4/8/09 19:28		149068	
Acetone	1.6	J	20	1.2	1	NA	4/8/09 19:28		149068	
Benzene	0.42	U	5.0	0.42	1	NA	4/8/09 19:28		149068	
Bromodichloromethane	0.84	U	5.0	0.84	1	NA	4/8/09 19:28		149068	
Bromoform	0.32	U	5.0	0.32	1	NA	4/8/09 19:28		149068	
Bromomethane	0.58	U	5.0	0.58	1	NA	4/8/09 19:28		149068	
Carbon Disulfide	0.52	U	10	0.52	1	NA	4/8/09 19:28		149068	
Carbon Tetrachloride	0.36	U	5.0	0.36	1	NA	4/8/09 19:28		149068	
Chlorobenzene	0.44	U	5.0	0.44	1	NA	4/8/09 19:28		149068	
Chloroethane	0.36	U	5.0	0.36	1	NA	4/8/09 19:28		149068	
Chloroform	0.22	U	5.0	0.22	1	NA	4/8/09 19:28		149068	
Chloromethane	0.96	U	5.0	0.96	1	NA	4/8/09 19:28		149068	
Dibromochloromethane	0.43	U	5.0	0.43	1	NA	4/8/09 19:28		149068	
Methylene Chloride	0.50	U	5.0	0.50	1	NA	4/8/09 19:28		149068	
Ethylbenzene	0.43	U	5.0	0.43	1	NA	4/8/09 19:28		149068	
Styrene	0.37	U	5.0	0.37	1	NA	4/8/09 19:28		149068	
Tetrachloroethene (PCE)	0.43	U	5.0	0.43	1	NA	4/8/09 19:28		149068	
Toluene	0.42	U	5.0	0.42	1	NA	4/8/09 19:28		149068	
Trichloroethene (TCE)	0.63	U	5.0	0.63	1	NA	4/8/09 19:28		149068	
Vinyl Chloride	0.52	U	5.0	0.52	1	NA	4/8/09 19:28		149068	
Xylenes, Total	1.5	U	5.0	1.5	1	NA	4/8/09 19:28		149068	
cis-1,3-Dichloropropene	0.38	U	5.0	0.38	1	NA	4/8/09 19:28		149068	
trans-1,3-Dichloropropene	0.25	U	5.0	0.25	1	NA	4/8/09 19:28		149068	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water  
**Sample Name:** WG-5513-032609-002  
**Lab Code:** R0901679-002

**Service Request:** R0901679  
**Date Collected:** 3/26/09 1015  
**Date Received:** 3/27/09  
**Units:** µg/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Surrogate Name			%Rec	Control Limits		Date Analyzed	Q		Note	
4-Bromofluorobenzene			101	80-123		4/8/09 19:28				
Dibromofluoromethane			102	89-115		4/8/09 19:28				
Toluene-d8			97	88-124		4/8/09 19:28				

**Comments:** \_\_\_\_\_

Data File : J:\ACQUDATA\MSVOA7\DATA\040809\M7592.D Vial: 13  
 Acq On : 8 Apr 2009 7:28 pm Operator: B.Bush  
 Sample : R0901679-002|1.0 Inst : MS #7  
 Misc : CRA, 8260, 4769, T4 Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Apr 8 19:58 2009 Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.87	168	529208	50.00	ppb	0.04
42) 1,4 - Difluorobenzene	12.22	114	1014564	50.00	ppb	0.05
63) d5 - Chlorobenzene	17.77	117	1029113	50.00	ppb	0.05
86) d4 - Dichlorobenzene	22.55	152	496627	50.00	ppb	0.05

System Monitoring Compounds

44) surr4,Dibrflmethane	10.90	113	391227	50.90	ppb	0.05
Spiked Amount	50.000	Range	89 - 115	Recovery	=	101.80%
48) surr1,1,2-Diclcethane	11.53	65	385057	52.80	ppb	0.05
Spiked Amount	50.000	Range	80 - 120	Recovery	=	105.60%
69) surr3,Toluene-d8	14.95	98	1164802	48.41	ppb	0.05
Spiked Amount	50.000	Range	88 - 124	Recovery	=	96.82%
70) surr2,bfb	20.11	95	545426	50.47	ppb	0.05
Spiked Amount	50.000	Range	80 - 123	Recovery	=	100.94%

Target Compounds

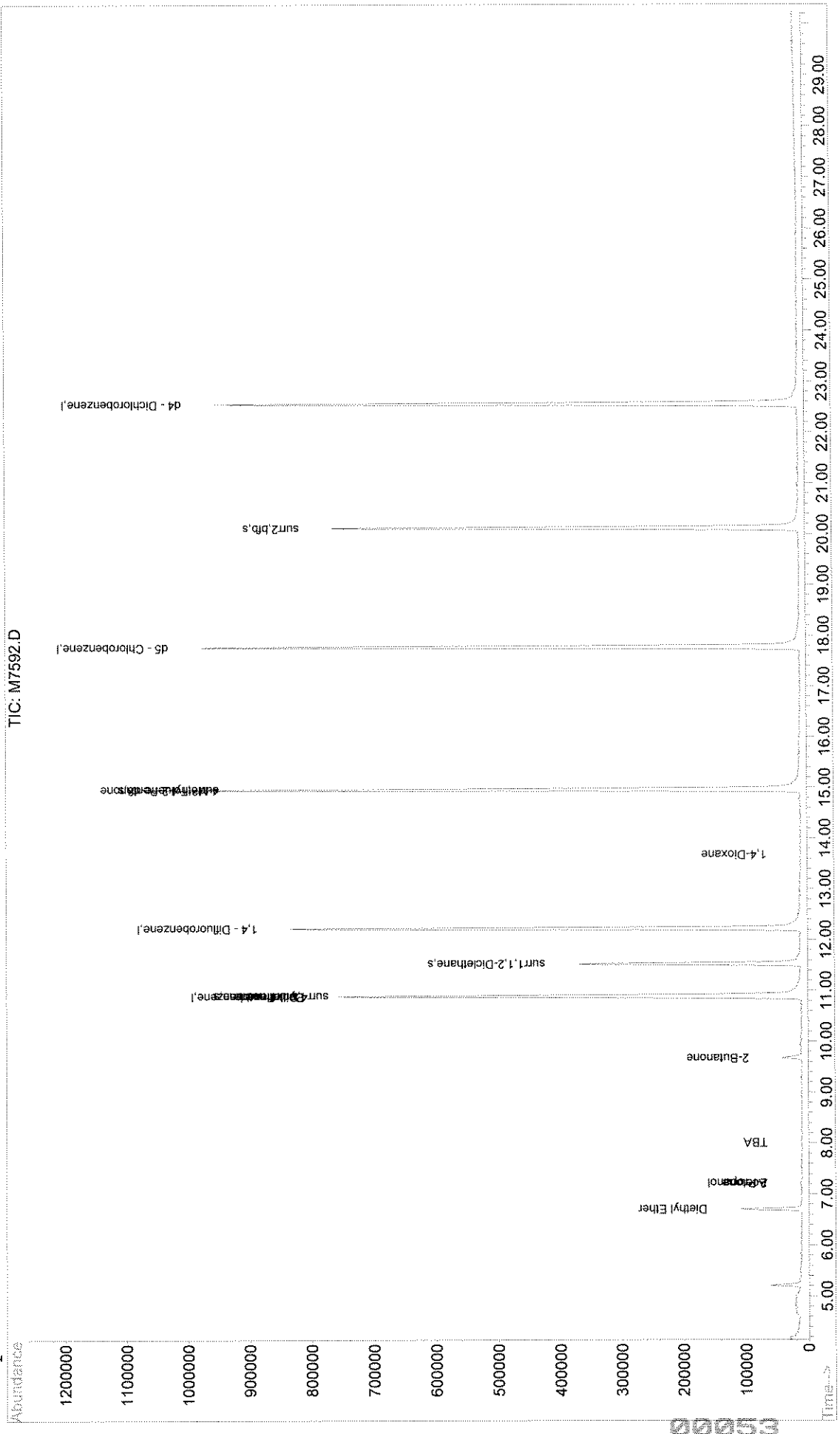
	R.T.	QIon	Response	Conc	Units	Qvalue
9) Diethyl Ether	6.71	59	75801	14.40	ppb	98
15) Acetone	7.20	43	3198	1.59	ppb	93
16) 2-Propanol	7.23	45	5105	15.61	ppb	# 72
<del>23) TBA</del>	<del>8.03</del>	<del>59</del>	<del>2185</del>	<del>4.87</del>	<del>ppb</del>	<del># 71</del>
<del>34) 2-Butanone</del>	<del>9.68</del>	<del>43</del>	<del>1955</del>	<del>0.52</del>	<del>ppb</del>	<del># 80</del>
<del>43) Cyclohexane</del>	<del>10.87</del>	<del>56</del>	<del>12054</del>	<del>0.93</del>	<del>ppb</del>	<del># 1</del>
<del>57) 1,4-Dioxane</del>	<del>13.66</del>	<del>88</del>	<del>515</del>	<del>9.48</del>	<del>ppb</del>	<del>99</del>
<del>64) 4-Methyl-2-Pentanone</del>	<del>14.94</del>	<del>43</del>	<del>8147</del>	<del>0.81</del>	<del>ppb</del>	<del># 1</del>

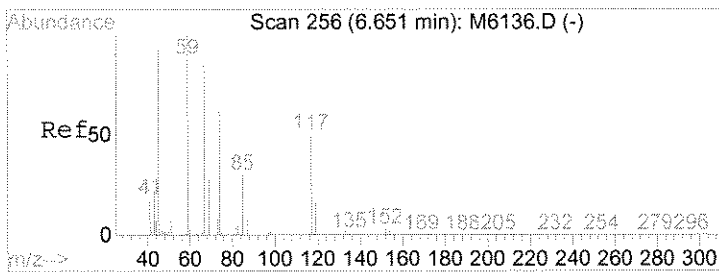
BB 4/10

Quantitation Report

Data File : J:\ACQDATA\MSVOA7\DATA\040809\M7592.D Vial: 13  
Acq On : 8 Apr 2009 7:28 pm Operator: B.Bush  
Sample : R0901679-002|1.0 Inst : MS #7  
Misc : CRA, 8260, 4769, T4 Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Apr 8 19:58 2009 Quant Results File: WAT0305.RES

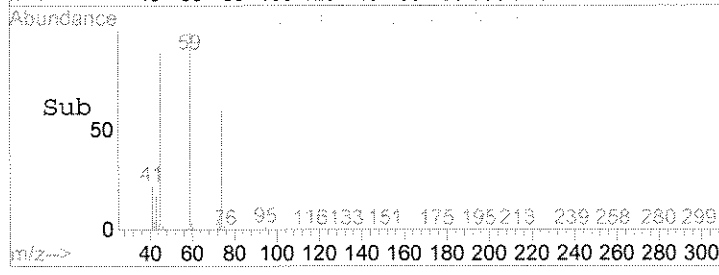
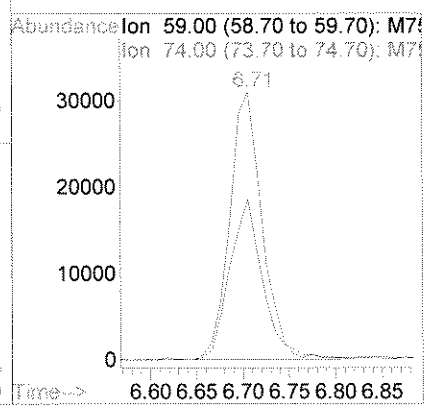
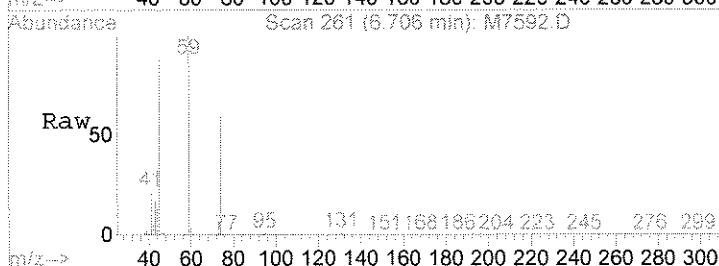
Method : J:\ACQDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
Title : 8260B.WATERS  
Last Update : Fri Mar 13 15:29:46 2009  
Response via : Initial Calibration





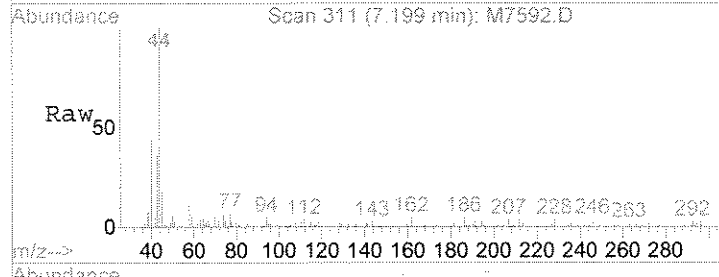
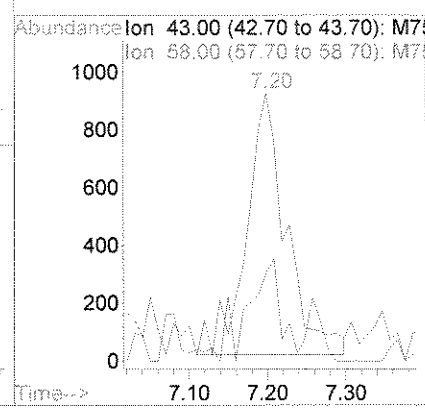
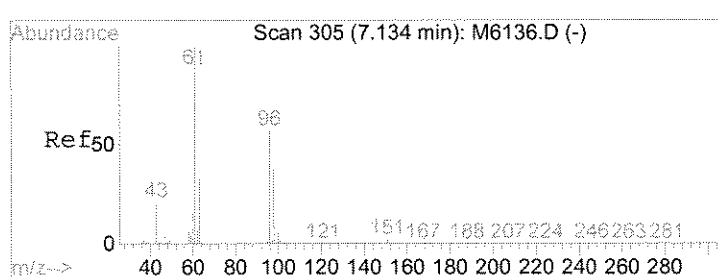
#9  
 Diethyl Ether  
 Concen: 14.40 ppb  
 RT: 6.71 min Scan# 261  
 Delta R.T. 0.04 min  
 Lab File: M7592.D  
 Acq: 8 Apr 2009 7:28 pm

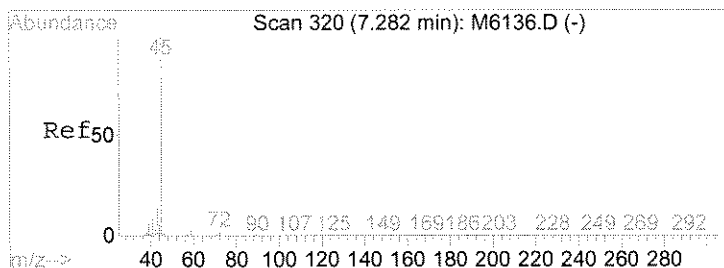
Tgt Ion:	59	Resp:	75801
Ion Ratio	Lower	Upper	
59	100		
74	59.9	43.6	72.7



#15  
 Acetone  
 Concen: 1.59 ppb  
 RT: 7.20 min Scan# 311  
 Delta R.T. 0.04 min  
 Lab File: M7592.D  
 Acq: 8 Apr 2009 7:28 pm

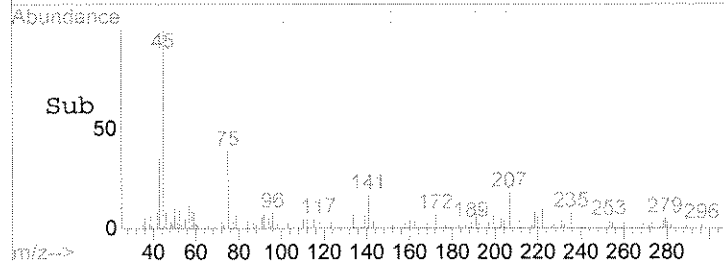
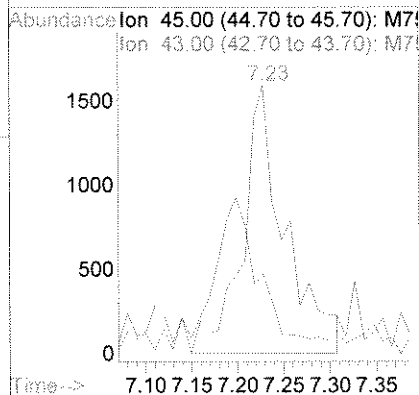
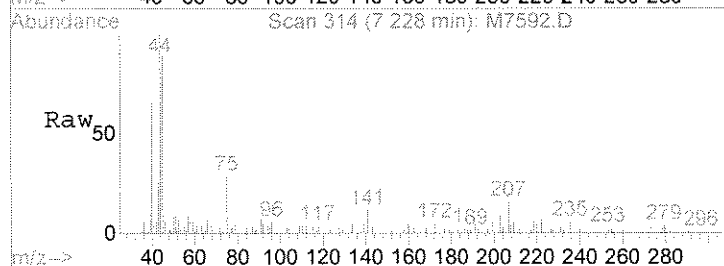
Tgt Ion:	43	Resp:	3198
Ion Ratio	Lower	Upper	
43	100		
58	33.2	23.6	35.4





#16  
 2-Propanol  
 Concen: 15.61 ppb  
 RT: 7.23 min Scan# 314  
 Delta R.T. -0.06 min  
 Lab File: M7592.D  
 Acq: 8 Apr 2009 7:28 pm

Tgt Ion: 45 Resp: 5105  
 Ion Ratio Lower Upper  
 45 100  
 43 29.5 13.1 21.9#





**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water  
**Sample Name:** WG-5513-032609-003  
**Lab Code:** R0901679-003

**Service Request:** R0901679  
**Date Collected:** 3/26/09 1100  
**Date Received:** 3/27/09  
**Units:** µg/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1-Trichloroethane (TCA)	0.45	U	5.0	0.45	1	NA	4/9/09 08:13		149259	
1,1,2,2-Tetrachloroethane	0.44	U	5.0	0.44	1	NA	4/9/09 08:13		149259	
1,1,2-Trichloroethane	0.45	U	5.0	0.45	1	NA	4/9/09 08:13		149259	
1,1-Dichloroethane (1,1-DCA)	0.64	U	5.0	0.64	1	NA	4/9/09 08:13		149259	
1,1-Dichloroethene (1,1-DCE)	0.59	U	5.0	0.59	1	NA	4/9/09 08:13		149259	
1,2-Dichloroethane	0.42	U	5.0	0.42	1	NA	4/9/09 08:13		149259	
1,2-Dichloroethene, Total	0.93	U	10	0.93	1	NA	4/9/09 08:13		149259	
1,2-Dichloropropane	0.36	U	5.0	0.36	1	NA	4/9/09 08:13		149259	
2-Butanone (MEK)	1.0	U	10	1.0	1	NA	4/9/09 08:13		149259	
2-Hexanone	0.78	U	10	0.78	1	NA	4/9/09 08:13		149259	
4-Methyl-2-pentanone	0.71	U	10	0.71	1	NA	4/9/09 08:13		149259	
Acetone	<b>3.1</b>	J	20	1.2	1	NA	4/9/09 08:13		149259	
Benzene	0.42	U	5.0	0.42	1	NA	4/9/09 08:13		149259	
Bromodichloromethane	0.84	U	5.0	0.84	1	NA	4/9/09 08:13		149259	
Bromoform	0.32	U	5.0	0.32	1	NA	4/9/09 08:13		149259	
Bromomethane	0.58	U	5.0	0.58	1	NA	4/9/09 08:13		149259	
Carbon Disulfide	<b>0.84</b>	J	10	0.52	1	NA	4/9/09 08:13		149259	
Carbon Tetrachloride	0.36	U	5.0	0.36	1	NA	4/9/09 08:13		149259	
Chlorobenzene	0.44	U	5.0	0.44	1	NA	4/9/09 08:13		149259	
Chloroethane	0.36	U	5.0	0.36	1	NA	4/9/09 08:13		149259	
Chloroform	0.22	U	5.0	0.22	1	NA	4/9/09 08:13		149259	
Chloromethane	0.96	U	5.0	0.96	1	NA	4/9/09 08:13		149259	
Dibromochloromethane	0.43	U	5.0	0.43	1	NA	4/9/09 08:13		149259	
Methylene Chloride	0.50	U	5.0	0.50	1	NA	4/9/09 08:13		149259	
Ethylbenzene	0.43	U	5.0	0.43	1	NA	4/9/09 08:13		149259	
Styrene	0.37	U	5.0	0.37	1	NA	4/9/09 08:13		149259	
Tetrachloroethene (PCE)	0.43	U	5.0	0.43	1	NA	4/9/09 08:13		149259	
Toluene	0.42	U	5.0	0.42	1	NA	4/9/09 08:13		149259	
Trichloroethene (TCE)	0.63	U	5.0	0.63	1	NA	4/9/09 08:13		149259	
Vinyl Chloride	0.52	U	5.0	0.52	1	NA	4/9/09 08:13		149259	
Xylenes, Total	1.5	U	5.0	1.5	1	NA	4/9/09 08:13		149259	
cis-1,3-Dichloropropene	0.38	U	5.0	0.38	1	NA	4/9/09 08:13		149259	
trans-1,3-Dichloropropene	0.25	U	5.0	0.25	1	NA	4/9/09 08:13		149259	

**Comments:**

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water  
**Sample Name:** WG-5513-032609-003  
**Lab Code:** R0901679-003

**Service Request:** R0901679  
**Date Collected:** 3/26/09 1100  
**Date Received:** 3/27/09  
**Units:** µg/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
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Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
4-Bromofluorobenzene	106	80-123	4/9/09 08:13		
Dibromofluoromethane	106	89-115	4/9/09 08:13		
Toluene-d8	92	88-124	4/9/09 08:13		

**Comments:** \_\_\_\_\_

Data File : J:\ACQUDATA\MSVOA7\DATA\040809\M7612.D Vial: 33  
 Acq On : 9 Apr 2009 8:13 am Operator: B.Bush  
 Sample : R0901679-003|1.0 Inst : MS #7  
 Misc : CRA, 8260, 4769, T4 Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Apr 9 8:44 2009 Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.86	168	593765	50.00	ppb	0.02
42) 1,4 - Difluorobenzene	12.21	114	1104494	50.00	ppb	0.03
63) d5 - Chlorobenzene	17.75	117	1100377	50.00	ppb	0.02
86) d4 - Dichlorobenzene	22.54	152	532633	50.00	ppb	0.03

System Monitoring Compounds

44) surr4, Dibrflmethane	10.89	113	445183	53.21	ppb	0.03
Spiked Amount	50.000	Range 89 - 115	Recovery	=	106.42%	
48) surr1, 1,2-Dicethane	11.51	65	426545	53.72	ppb	0.03
Spiked Amount	50.000	Range 80 - 120	Recovery	=	107.44%	
69) surr3, Toluene-d8	14.94	98	1188815	46.21	ppb	0.03
Spiked Amount	50.000	Range 88 - 124	Recovery	=	92.42%	
70) surr2, bfb	20.09	95	615211	53.24	ppb	0.03
Spiked Amount	50.000	Range 80 - 123	Recovery	=	106.48%	

Target Compounds

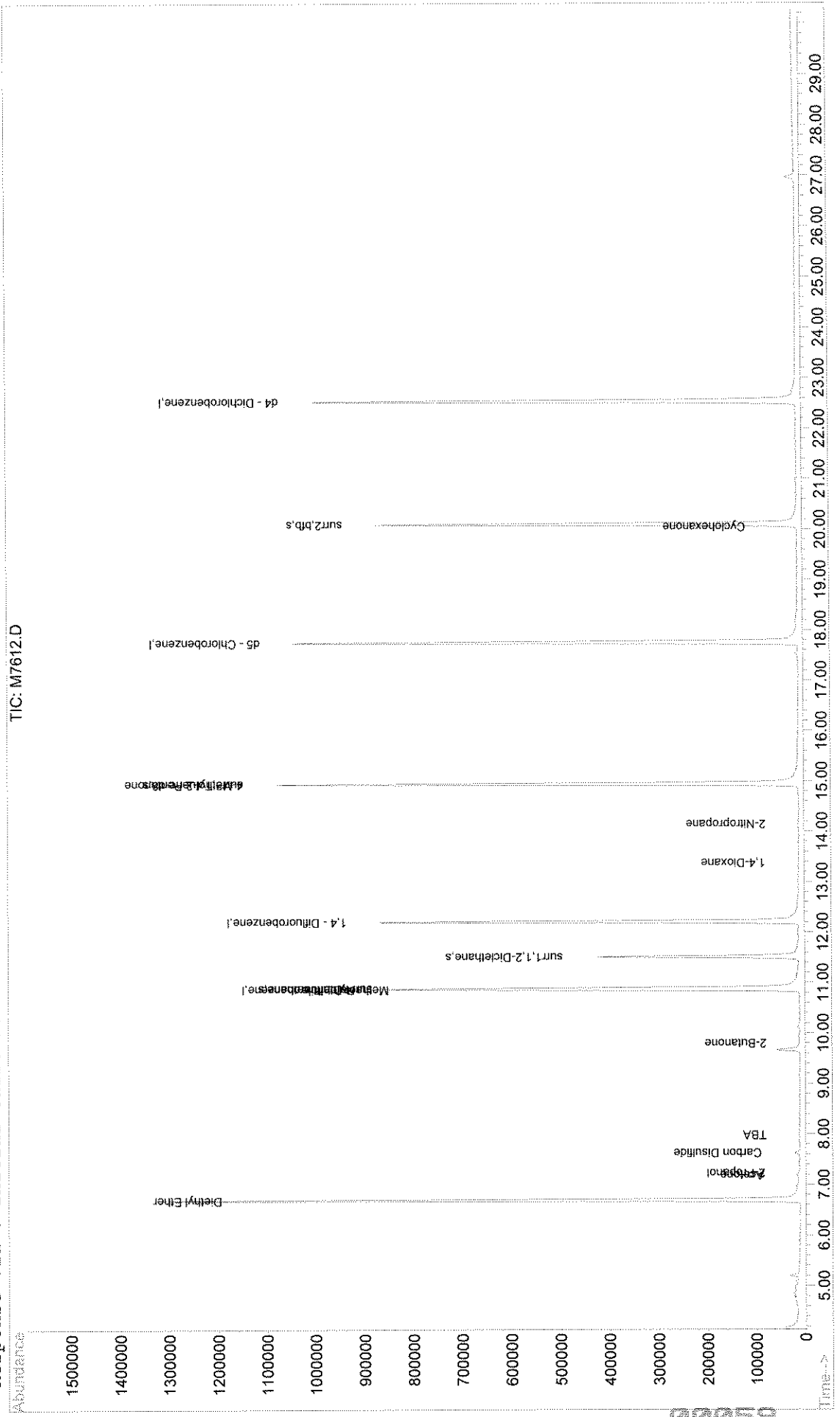
	R.T.	QIon	Response	Conc	Units	Qvalue
9) Diethyl Ether	6.69	59	1098996	186.07	ppb	100 NT
15) Acetone	7.17	43	6986	3.11	ppb	# 77
<del>16) 2-Propanol</del>	<del>7.22</del>	<del>45</del>	<del>4087</del>	<del>11.14</del>	<del>ppb</del>	<del># 52</del>
18) Carbon Disulfide	7.63	76	20027	0.84	ppb	98
<del>23) TBA</del>	<del>7.99</del>	<del>59</del>	<del>1607</del>	<del>3.19</del>	<del>ppb</del>	<del># 77</del>
<del>34) 2-Butanone</del>	<del>9.79</del>	<del>43</del>	<del>1404</del>	<del>0.33</del>	<del>ppb</del>	<del>100</del>
<del>37) Methacrylonitrile</del>	<del>10.85</del>	<del>67</del>	<del>1509</del>	<del>0.54</del>	<del>ppb</del>	<del># 1</del>
<del>57) 1,4-Dioxane</del>	<del>13.36</del>	<del>88</del>	<del>440</del>	<del>7.44</del>	<del>ppb</del>	<del># 37</del>
<del>60) 2-Nitropropane</del>	<del>14.13</del>	<del>43</del>	<del>3061</del>	<del>1.44</del>	<del>ppb</del>	<del># 81</del>
<del>64) 4-Methyl-2-Pentanone</del>	<del>14.93</del>	<del>43</del>	<del>8257</del>	<del>0.76</del>	<del>ppb</del>	<del># 1</del>
<del>85) Cyclohexanone</del>	<del>20.03</del>	<del>55</del>	<del>435</del>	<del>0.31</del>	<del>ppb</del>	<del>92</del>

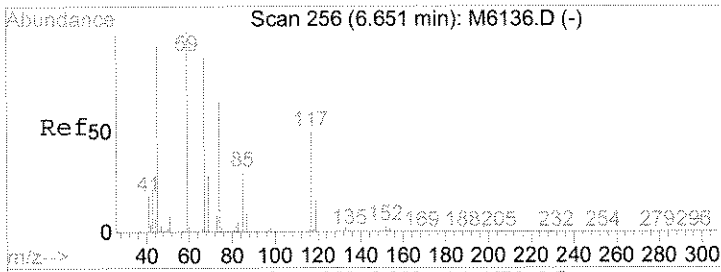
BB 4/16

Quantitation Report

Data File : J:\ACQDATA\MSVOA7\DATA\040809\M7612.D Vial: 33  
Acq On : 9 Apr 2009 8:13 am Operator: B.Bush  
Sample : R0901679-003|1.0 Inst : MS #7  
Misc : CRA, 8260, 4769, T4 Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Apr 9 8:44 2009 Quant Results File: WAT0305.RES

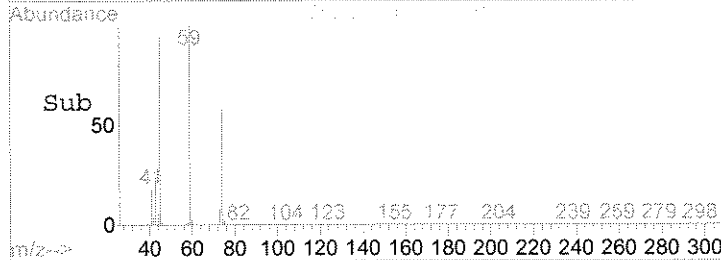
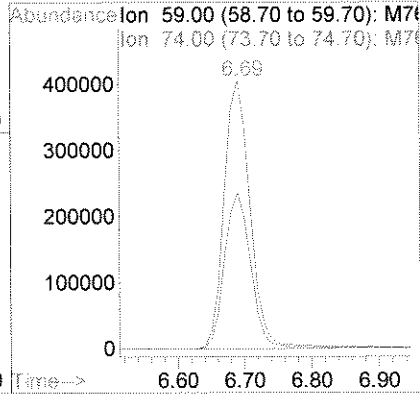
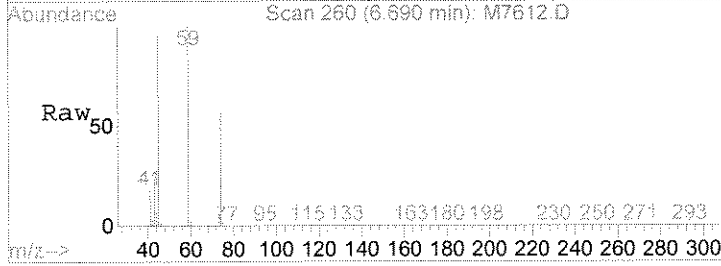
Method : J:\ACQDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
Title : 8260B.WATERS  
Last Update : Fri Mar 13 15:29:46 2009  
Response via : Initial Calibration





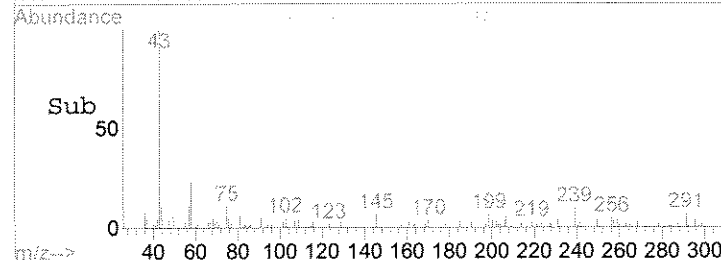
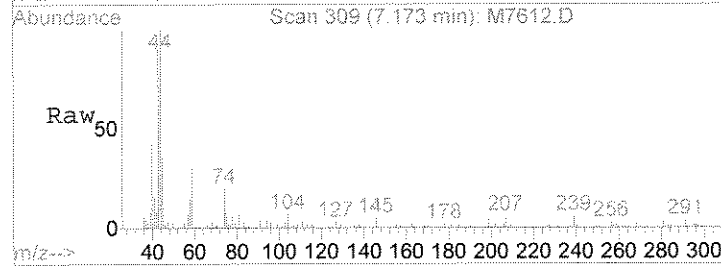
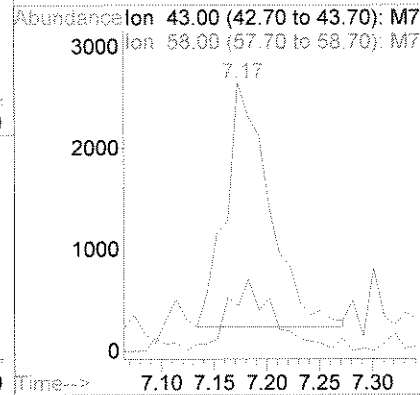
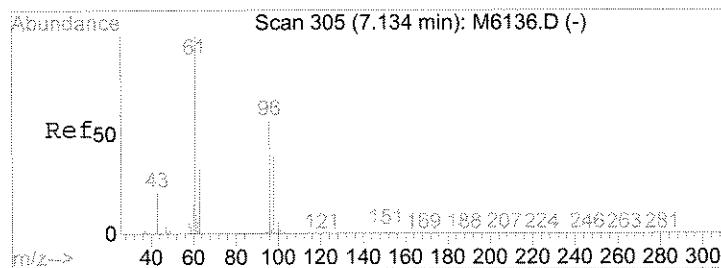
#9  
 Diethyl Ether  
 Concen: 186.07 ppb  
 RT: 6.69 min Scan# 260  
 Delta R.T. 0.02 min  
 Lab File: M7612.D  
 Acq: 9 Apr 2009 8:13 am

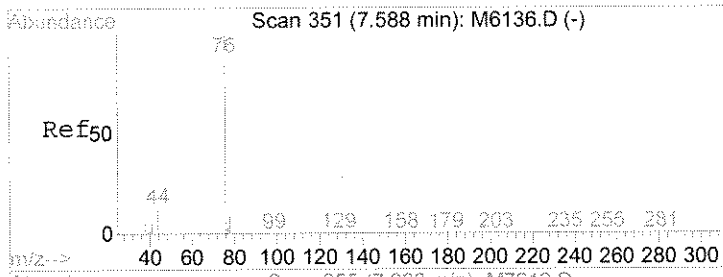
Tgt Ion: 59 Resp: 1098996  
 Ion Ratio Lower Upper  
 59 100  
 74 58.0 43.6 72.7



#15  
 Acetone  
 Concen: 3.11 ppb  
 RT: 7.17 min Scan# 309  
 Delta R.T. 0.01 min  
 Lab File: M7612.D  
 Acq: 9 Apr 2009 8:13 am

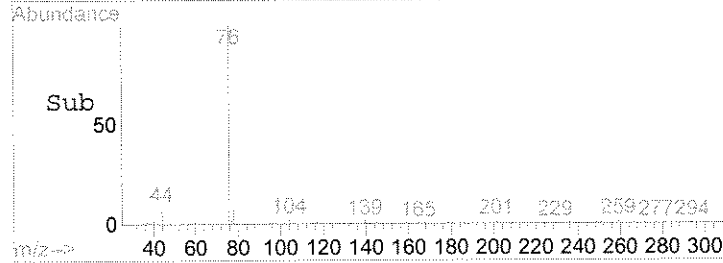
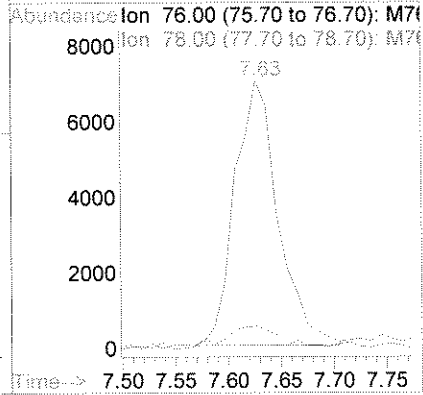
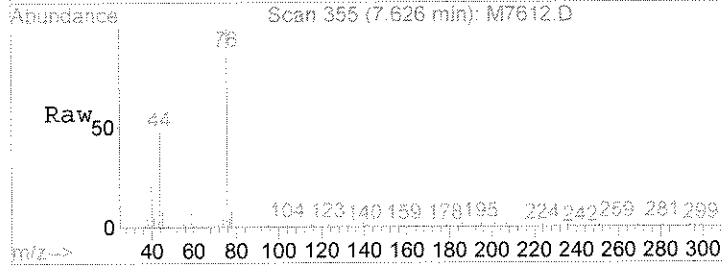
Tgt Ion: 43 Resp: 6986  
 Ion Ratio Lower Upper  
 43 100  
 58 16.9 23.6 35.4#





#18  
 Carbon Disulfide  
 Concen: 0.84 ppb  
 RT: 7.63 min Scan# 355  
 Delta R.T. 0.03 min  
 Lab File: M7612.D  
 Acq: 9 Apr 2009 8:13 am

Tgt Ion	Resp	Lower	Upper
76	100		
78	8.5	6.4	12.0



## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

Client: Conestoga-Rovers & Associates, Incorporated  
 Project: UCAR Annual GE/ 5513-02  
 Sample Matrix: Water  
 Sample Name: WG-5513-032609-004  
 Lab Code: R0901679-004

Service Request: R0901679  
 Date Collected: 3/26/09 1110  
 Date Received: 3/27/09

Units: µg/L  
 Basis: NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis	
								Lot	Lot Note
1,1,1-Trichloroethane (TCA)	0.45	U	5.0	0.45	1	NA	4/9/09 03:42		149259
1,1,2,2-Tetrachloroethane	0.44	U	5.0	0.44	1	NA	4/9/09 03:42		149259
1,1,2-Trichloroethane	0.45	U	5.0	0.45	1	NA	4/9/09 03:42		149259
1,1-Dichloroethane (1,1-DCA)	0.64	U	5.0	0.64	1	NA	4/9/09 03:42		149259
1,1-Dichloroethene (1,1-DCE)	0.59	U	5.0	0.59	1	NA	4/9/09 03:42		149259
1,2-Dichloroethane	0.42	U	5.0	0.42	1	NA	4/9/09 03:42		149259
1,2-Dichloroethene, Total	0.93	U	10	0.93	1	NA	4/9/09 03:42		149259
1,2-Dichloropropane	0.36	U	5.0	0.36	1	NA	4/9/09 03:42		149259
2-Butanone (MEK)	1.0	U	10	1.0	1	NA	4/9/09 03:42		149259
2-Hexanone	0.78	U	10	0.78	1	NA	4/9/09 03:42		149259
4-Methyl-2-pentanone	0.71	U	10	0.71	1	NA	4/9/09 03:42		149259
Acetone	3.5	J	20	1.2	1	NA	4/9/09 03:42		149259
Benzene	0.42	U	5.0	0.42	1	NA	4/9/09 03:42		149259
Bromodichloromethane	0.84	U	5.0	0.84	1	NA	4/9/09 03:42		149259
Bromoform	0.32	U	5.0	0.32	1	NA	4/9/09 03:42		149259
Bromomethane	0.58	U	5.0	0.58	1	NA	4/9/09 03:42		149259
Carbon Disulfide	0.86	J	10	0.52	1	NA	4/9/09 03:42		149259
Carbon Tetrachloride	0.36	U	5.0	0.36	1	NA	4/9/09 03:42		149259
Chlorobenzene	0.44	U	5.0	0.44	1	NA	4/9/09 03:42		149259
Chloroethane	0.36	U	5.0	0.36	1	NA	4/9/09 03:42		149259
Chloroform	0.22	U	5.0	0.22	1	NA	4/9/09 03:42		149259
Chloromethane	0.96	U	5.0	0.96	1	NA	4/9/09 03:42		149259
Dibromochloromethane	0.43	U	5.0	0.43	1	NA	4/9/09 03:42		149259
Methylene Chloride	0.50	U	5.0	0.50	1	NA	4/9/09 03:42		149259
Ethylbenzene	0.43	U	5.0	0.43	1	NA	4/9/09 03:42		149259
Styrene	0.37	U	5.0	0.37	1	NA	4/9/09 03:42		149259
Tetrachloroethene (PCE)	0.43	U	5.0	0.43	1	NA	4/9/09 03:42		149259
Toluene	0.42	U	5.0	0.42	1	NA	4/9/09 03:42		149259
Trichloroethene (TCE)	0.63	U	5.0	0.63	1	NA	4/9/09 03:42		149259
Vinyl Chloride	0.52	U	5.0	0.52	1	NA	4/9/09 03:42		149259
Xylenes, Total	1.5	U	5.0	1.5	1	NA	4/9/09 03:42		149259
cis-1,3-Dichloropropene	0.38	U	5.0	0.38	1	NA	4/9/09 03:42		149259
trans-1,3-Dichloropropene	0.25	U	5.0	0.25	1	NA	4/9/09 03:42		149259

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water  
**Sample Name:** WG-5513-032609-004  
**Lab Code:** R0901679-004

**Service Request:** R0901679  
**Date Collected:** 3/26/09 1110  
**Date Received:** 3/27/09  
**Units:** µg/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Surrogate Name			%Rec	Control Limits		Date Analyzed	Q		Note	
4-Bromofluorobenzene			102	80-123		4/9/09 03:42				
Dibromofluoromethane			102	89-115		4/9/09 03:42				
Toluene-d8			89	88-124		4/9/09 03:42				

Comments:



Data File : J:\ACQUDATA\MSVOA7\DATA\040809\M7605.D  
 Acq On : 9 Apr 2009 3:42 am  
 Sample : R0901679-004|1.0  
 Misc : CRA, 8260, 4769, T4  
 MS Integration Params: RTEINT.P  
 Quant Time: Apr 9 4:12 2009

Vial: 26  
 Operator: B.Bush  
 Inst : MS #7  
 Multiplr: 1.00

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

*art 1/2*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.86	168	557740	50.00	ppb	0.03
42) 1,4 - Difluorobenzene	12.21	114	1071007	50.00	ppb	0.04
63) d5 - Chlorobenzene	17.76	117	1102995	50.00	ppb	0.04
86) d4 - Dichlorobenzene	22.54	152	527892	50.00	ppb	0.04

System Monitoring Compounds

44) surr4,Dibrflmethane	10.89	113	414652	51.11	ppb	0.04
Spiked Amount	50.000	Range	89 - 115	Recovery	=	102.22%
48) surr1,1,2-Dicethane	11.52	65	404510	52.54	ppb	0.04
Spiked Amount	50.000	Range	80 - 120	Recovery	=	105.08%
69) surr3,Toluene-d8	14.94	98	1153409	44.73	ppb	0.04
Spiked Amount	50.000	Range	88 - 124	Recovery	=	89.46%
70) surr2,bfb	20.11	95	593478	51.24	ppb	0.05
Spiked Amount	50.000	Range	80 - 123	Recovery	=	102.48%

Target Compounds

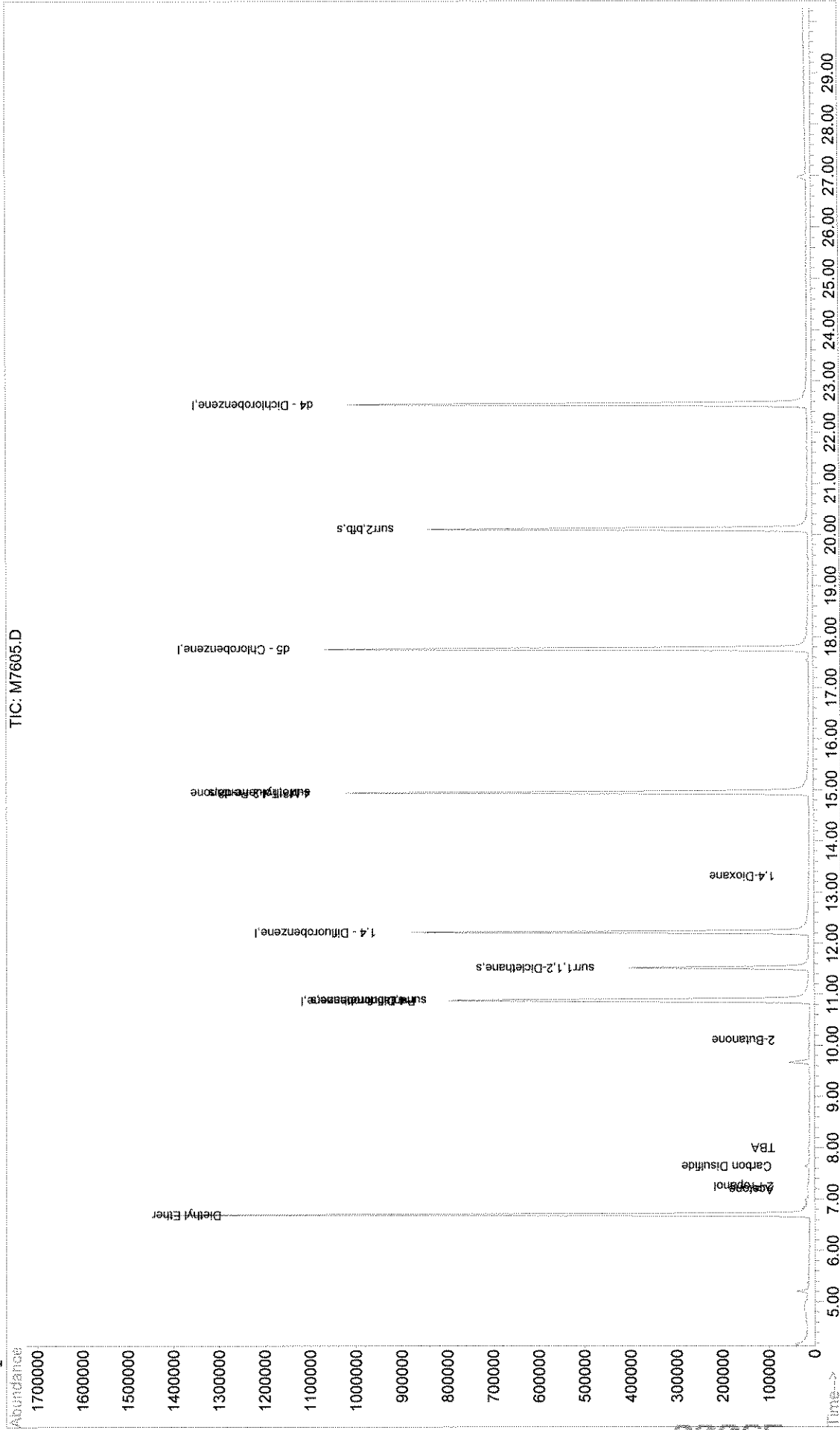
	R.T.	QIon	Response	Conc	Units	Qvalue
9) Diethyl Ether	6.70	59	1129092	203.52	ppb	100
15) Acetone	7.19	43	7307	3.46	ppb	97
<del>16) 2-Propanol</del>	<del>7.24</del>	<del>45</del>	<del>4715</del>	<del>13.68</del>	<del>ppb</del>	<del>97</del>
18) Carbon Disulfide	7.64	76	19280	0.86	ppb #	90
<del>23) TBA</del>	<del>8.00</del>	<del>59</del>	<del>3536</del>	<del>7.48</del>	<del>ppb #</del>	<del>27</del>
<del>34) 2-Butanone</del>	<del>10.11</del>	<del>43</del>	<del>5086</del>	<del>1.27</del>	<del>ppb #</del>	<del>64</del>
<del>57) 1,4-Dioxane</del>	<del>13.31</del>	<del>88</del>	<del>949</del>	<del>16.54</del>	<del>ppb #</del>	<del>48</del>
<del>64) 4-Methyl-2-Pentanone</del>	<del>14.94</del>	<del>43</del>	<del>7091</del>	<del>0.65</del>	<del>ppb #</del>	<del>1</del>

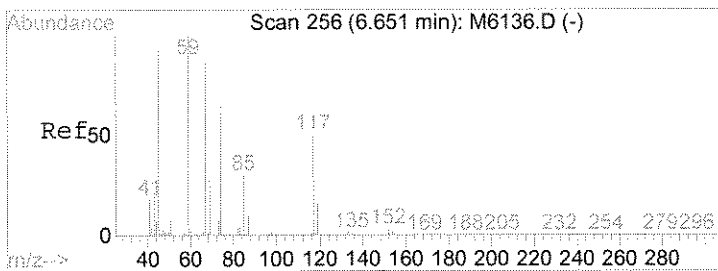
*NT*  
*BS 4/16*

Quantitation Report

Data File : J:\ACQDATA\MSVOA7\DATA\040809\M7605.D Vial: 26  
Acq On : 9 Apr 2009 3:42 am Operator: B.Bush  
Sample : R0901679-004|1.0 Inst : MS #7  
Misc : CRA, 8260, 4769, T4 Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Apr 9 4:12 2009 Quant Results File: WAT0305.RES

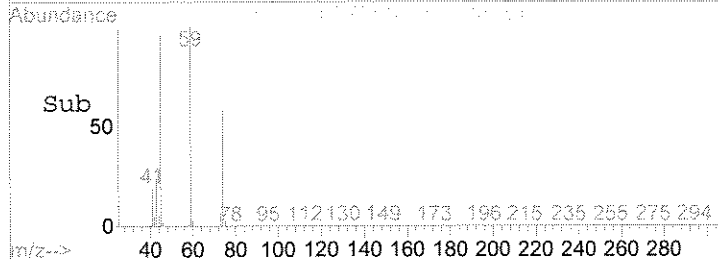
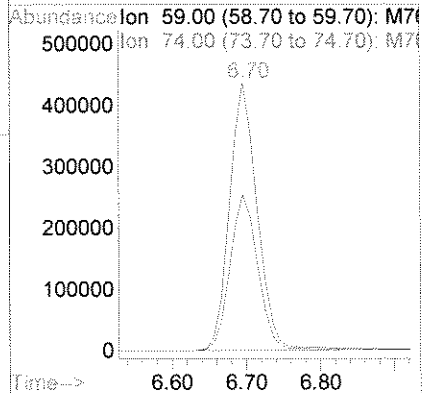
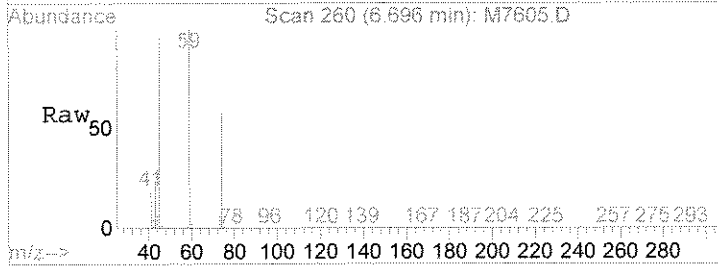
Method : J:\ACQDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
Title : 8260B.WATERS  
Last Update : Fri Mar 13 15:29:46 2009  
Response via : Initial Calibration





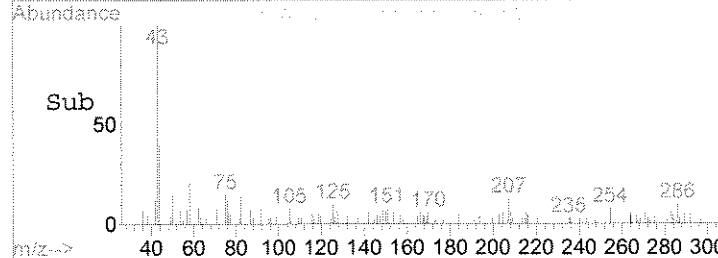
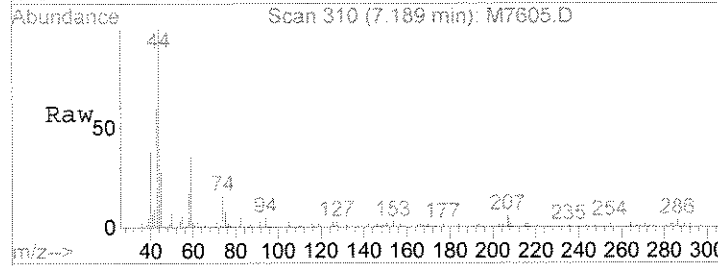
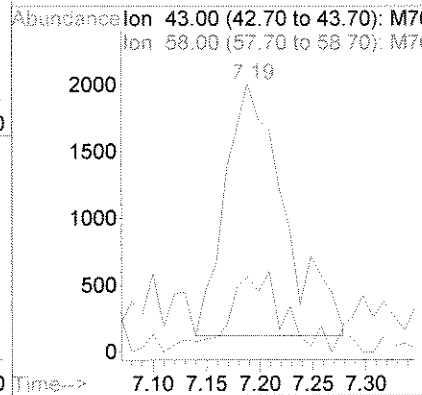
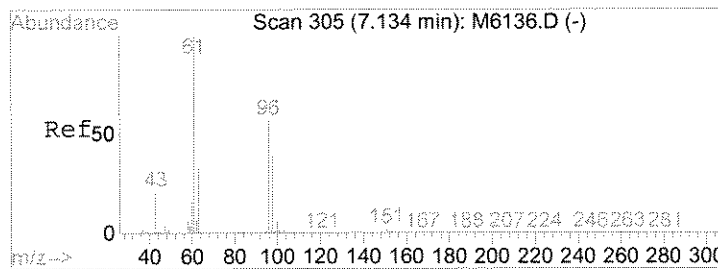
#9  
 Diethyl Ether  
 Concen: 203.52 ppb  
 RT: 6.70 min Scan# 260  
 Delta R.T. 0.03 min  
 Lab File: M7605.D  
 Acq: 9 Apr 2009 3:42 am

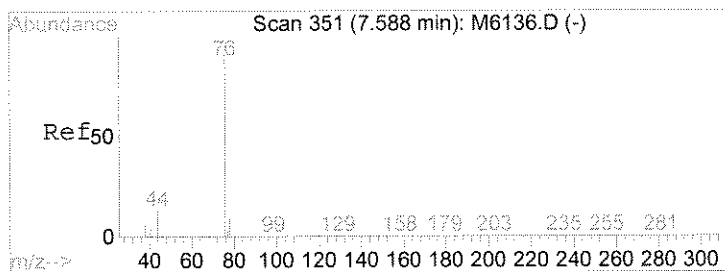
Tgt Ion: 59 Resp: 1129092  
 Ion Ratio Lower Upper  
 59 100  
 74 58.0 43.6 72.7



#15  
 Acetone  
 Concen: 3.46 ppb  
 RT: 7.19 min Scan# 310  
 Delta R.T. 0.03 min  
 Lab File: M7605.D  
 Acq: 9 Apr 2009 3:42 am

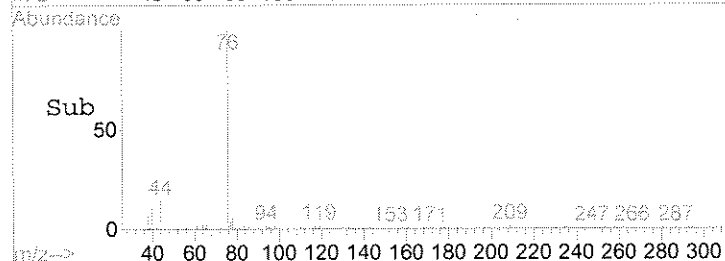
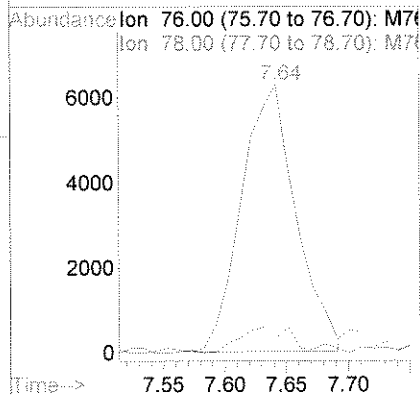
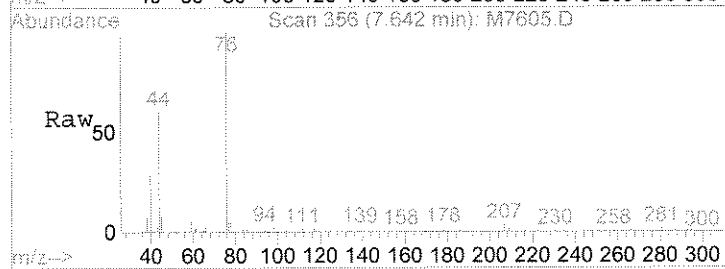
Tgt Ion: 43 Resp: 7307  
 Ion Ratio Lower Upper  
 43 100  
 58 28.0 23.6 35.4





#18  
 Carbon Disulfide  
 Concen: 0.86 ppb  
 RT: 7.64 min Scan# 356  
 Delta R.T. 0.05 min  
 Lab File: M7605.D  
 Acq: 9 Apr 2009 3:42 am

Tgt Ion: 76 Resp: 19280  
 Ion Ratio Lower Upper  
 76 100  
 78 5.6 6.4 12.0#



**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water  
**Sample Name:** WG-5513-032609-005  
**Lab Code:** R0901679-005

**Service Request:** R0901679  
**Date Collected:** 3/26/09 1300  
**Date Received:** 3/27/09  
**Units:** µg/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis	
								Lot	Lot Note
1,1,1-Trichloroethane (TCA)	0.45	U	5.0	0.45	1	NA	4/9/09 04:21	149259	
1,1,2,2-Tetrachloroethane	0.44	U	5.0	0.44	1	NA	4/9/09 04:21	149259	
1,1,2-Trichloroethane	0.45	U	5.0	0.45	1	NA	4/9/09 04:21	149259	
1,1-Dichloroethane (1,1-DCA)	0.64	U	5.0	0.64	1	NA	4/9/09 04:21	149259	
1,1-Dichloroethene (1,1-DCE)	0.59	U	5.0	0.59	1	NA	4/9/09 04:21	149259	
1,2-Dichloroethane	0.42	U	5.0	0.42	1	NA	4/9/09 04:21	149259	
1,2-Dichloroethene, Total	0.93	U	10	0.93	1	NA	4/9/09 04:21	149259	
1,2-Dichloropropane	0.36	U	5.0	0.36	1	NA	4/9/09 04:21	149259	
2-Butanone (MEK)	1.0	U	10	1.0	1	NA	4/9/09 04:21	149259	
2-Hexanone	0.78	U	10	0.78	1	NA	4/9/09 04:21	149259	
4-Methyl-2-pentanone	0.71	U	10	0.71	1	NA	4/9/09 04:21	149259	
Acetone	1.9	J	20	1.2	1	NA	4/9/09 04:21	149259	
Benzene	0.42	U	5.0	0.42	1	NA	4/9/09 04:21	149259	
Bromodichloromethane	0.84	U	5.0	0.84	1	NA	4/9/09 04:21	149259	
Bromoform	0.32	U	5.0	0.32	1	NA	4/9/09 04:21	149259	
Bromomethane	0.58	U	5.0	0.58	1	NA	4/9/09 04:21	149259	
Carbon Disulfide	0.52	U	10	0.52	1	NA	4/9/09 04:21	149259	
Carbon Tetrachloride	0.36	U	5.0	0.36	1	NA	4/9/09 04:21	149259	
Chlorobenzene	0.44	U	5.0	0.44	1	NA	4/9/09 04:21	149259	
Chloroethane	0.36	U	5.0	0.36	1	NA	4/9/09 04:21	149259	
Chloroform	0.22	U	5.0	0.22	1	NA	4/9/09 04:21	149259	
Chloromethane	0.96	U	5.0	0.96	1	NA	4/9/09 04:21	149259	
Dibromochloromethane	0.43	U	5.0	0.43	1	NA	4/9/09 04:21	149259	
Methylene Chloride	0.50	U	5.0	0.50	1	NA	4/9/09 04:21	149259	
Ethylbenzene	0.43	U	5.0	0.43	1	NA	4/9/09 04:21	149259	
Styrene	0.37	U	5.0	0.37	1	NA	4/9/09 04:21	149259	
Tetrachloroethene (PCE)	0.43	U	5.0	0.43	1	NA	4/9/09 04:21	149259	
Toluene	0.42	U	5.0	0.42	1	NA	4/9/09 04:21	149259	
Trichloroethene (TCE)	0.63	U	5.0	0.63	1	NA	4/9/09 04:21	149259	
Vinyl Chloride	0.52	U	5.0	0.52	1	NA	4/9/09 04:21	149259	
Xylenes, Total	1.5	U	5.0	1.5	1	NA	4/9/09 04:21	149259	
cis-1,3-Dichloropropene	0.38	U	5.0	0.38	1	NA	4/9/09 04:21	149259	
trans-1,3-Dichloropropene	0.25	U	5.0	0.25	1	NA	4/9/09 04:21	149259	

**Comments:**

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Conestoga-Rovers & Associates, Incorporated
Project: UCAR Annual GE/ 5513-02
Sample Matrix: Water
Sample Name: WG-5513-032609-005
Lab Code: R0901679-005

Service Request: R0901679
Date Collected: 3/26/09 1300
Date Received: 3/27/09

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Table with 10 columns: Analyte Name, Result, Q, MRL, MDL, Dilution Factor, Date Extracted, Date Analyzed, Extraction Lot, Analysis Lot, Note

Table with 6 columns: Surrogate Name, %Rec, Control Limits, Date Analyzed, Q, Note. Includes rows for 4-Bromofluorobenzene, Dibromofluoromethane, and Toluene-d8.

Comments:

Data File : J:\ACQUDATA\MSVOA7\DATA\040809\M7606.D Vial: 27  
 Acq On : 9 Apr 2009 4:21 am Operator: B.Bush  
 Sample : R0901679-005|1.0 Inst : MS #7  
 Misc : CRA, 8260, 4769, T4 Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Apr 9 4:51 2009 Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.87	168	603581	50.00	ppb	0.03
42) 1,4 - Difluorobenzene	12.21	114	1112623	50.00	ppb	0.03
63) d5 - Chlorobenzene	17.76	117	1136721	50.00	ppb	0.03
86) d4 - Dichlorobenzene	22.55	152	547796	50.00	ppb	0.04

System Monitoring Compounds

44) surr4, Dibrflmethane	10.90	113	438973	52.08	ppb	0.04
Spiked Amount	50.000	Range 89 - 115	Recovery	=	104.16%	
48) surr1, 1,2-Diclcethane	11.52	65	438419	54.82	ppb	0.04
Spiked Amount	50.000	Range 80 - 120	Recovery	=	109.64%	
69) surr3, Toluene-d8	14.94	98	1188575	44.72	ppb	0.03
Spiked Amount	50.000	Range 88 - 124	Recovery	=	89.44%	
70) surr2, bfb	20.10	95	612463	51.31	ppb	0.04
Spiked Amount	50.000	Range 80 - 123	Recovery	=	102.62%	

Target Compounds

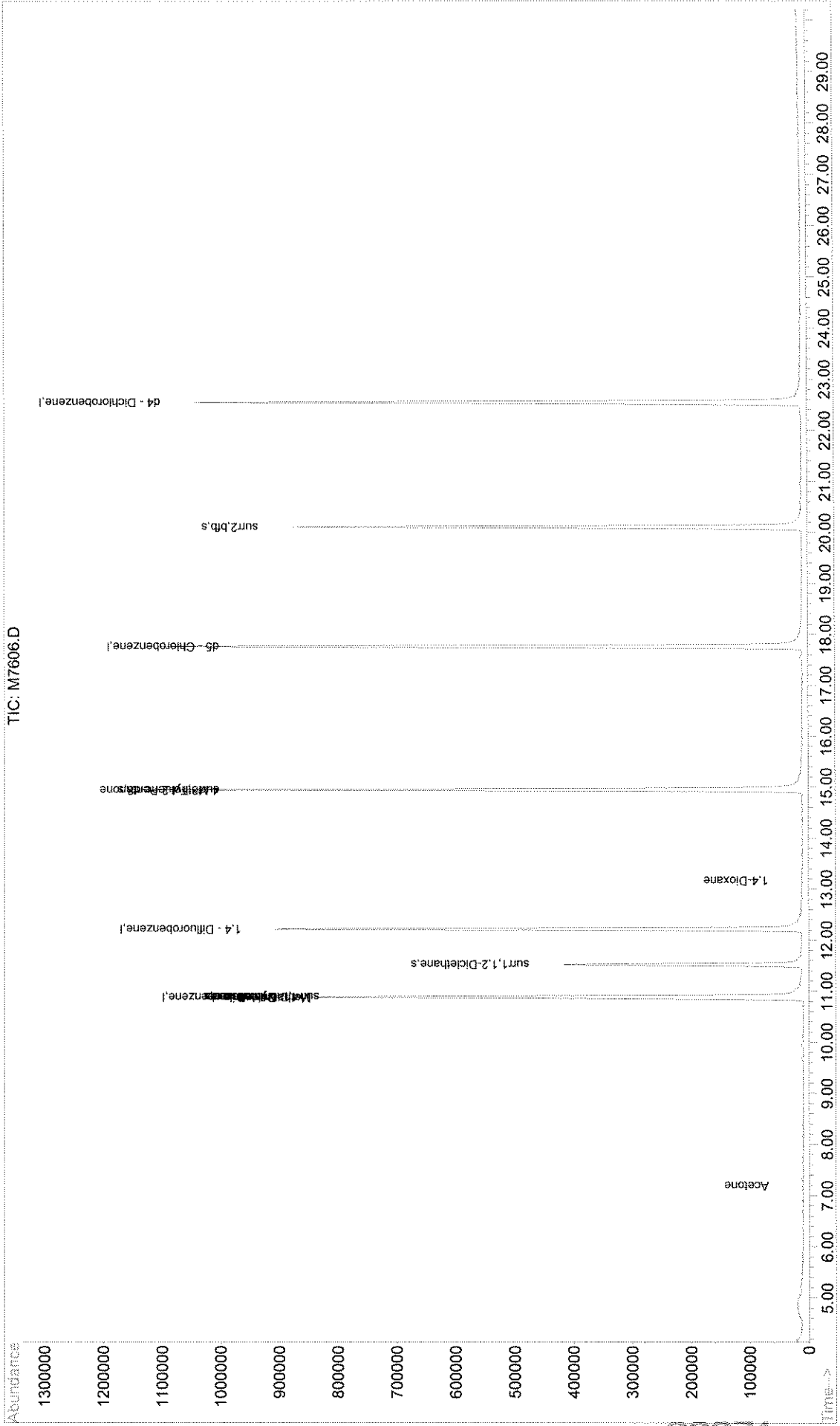
						Qvalue
15) Acetone	7.19	43	4268	1.87	ppb	# 75
<del>37) Methacrylonitrile</del>	<del>10.86</del>	<del>67</del>	<del>1416</del>	<del>0.50</del>	<del>ppb</del>	<del># 1</del>
43) Cyclohexane	10.87	56	15198	1.07	ppb	# 1
57) 1,4-Dioxane	13.16	88	351	5.89	ppb	# 81
<del>64) 4-Methyl-2-Pentanone</del>	<del>14.94</del>	<del>43</del>	<del>7045</del>	<del>0.63</del>	<del>ppb</del>	<del># 1</del>

BB 4/16

Quantitation Report

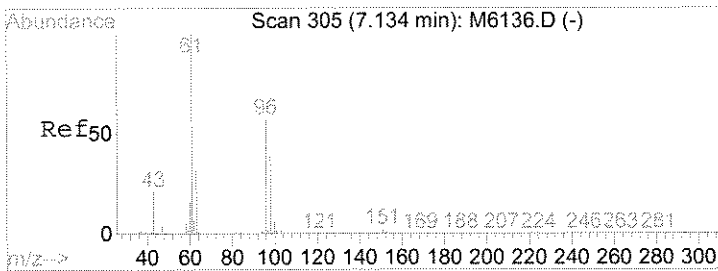
Data File : J:\ACQDATA\MSVOA7\DATA\040809\M7606.D Vial: 27  
Acq On : 9 Apr 2009 4:21 am Operator: B.Bush  
Sample : R0901679-005|1.0 Inst : MS #7  
Misc : CRA, 8260, 4769, T4 Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Apr 9 4:51 2009 Quant Results File: WAT0305.RES

Method : J:\ACQDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
Title : 8260B.WATERS  
Last Update : Fri Mar 13 15:29:46 2009  
Response via : Initial Calibration



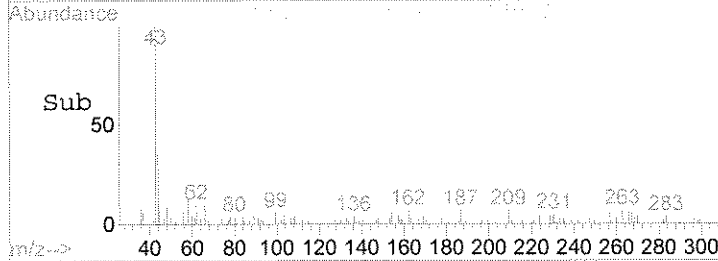
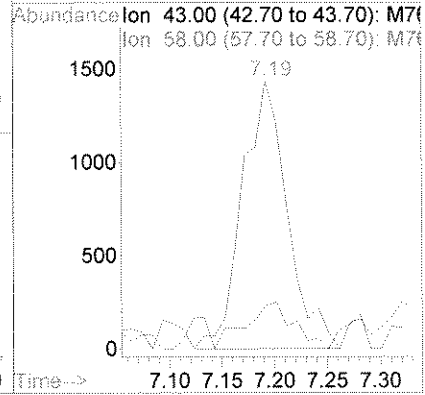
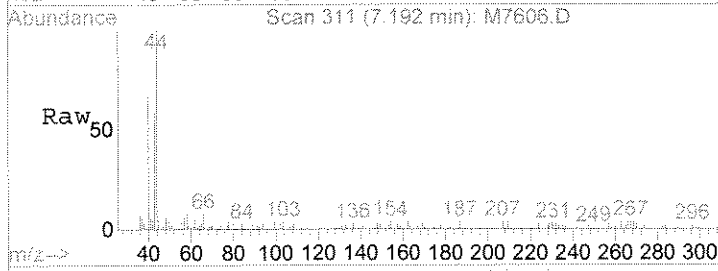
1700071





#15  
 Acetone  
 Concen: 1.87 ppb  
 RT: 7.19 min Scan# 311  
 Delta R.T. 0.03 min  
 Lab File: M7606.D  
 Acq: 9 Apr 2009 4:21 am

Tgt Ion: 43 Resp: 4268  
 Ion Ratio Lower Upper  
 43 100  
 58 16.2 23.6 35.4#



**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water  
**Sample Name:** WG-5513-032609-006  
**Lab Code:** R0901679-006

**Service Request:** R0901679  
**Date Collected:** 3/26/09 1145  
**Date Received:** 3/27/09  
**Units:** µg/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution	Date	Date	Extraction	Analysis	
					Factor	Extracted	Analyzed	Lot	Lot	Note
1,1,1-Trichloroethane (TCA)	0.45	U	5.0	0.45	1	NA	4/9/09 14:48			149502
1,1,2,2-Tetrachloroethane	0.44	U	5.0	0.44	1	NA	4/9/09 14:48			149502
1,1,2-Trichloroethane	0.45	U	5.0	0.45	1	NA	4/9/09 14:48			149502
1,1-Dichloroethane (1,1-DCA)	0.64	U	5.0	0.64	1	NA	4/9/09 14:48			149502
1,1-Dichloroethene (1,1-DCE)	0.59	U	5.0	0.59	1	NA	4/9/09 14:48			149502
1,2-Dichloroethane	0.42	U	5.0	0.42	1	NA	4/9/09 14:48			149502
1,2-Dichloroethene, Total	0.93	U	10	0.93	1	NA	4/9/09 14:48			149502
1,2-Dichloropropane	0.36	U	5.0	0.36	1	NA	4/9/09 14:48			149502
2-Butanone (MEK)	1.0	U	10	1.0	1	NA	4/9/09 14:48			149502
2-Hexanone	0.78	U	10	0.78	1	NA	4/9/09 14:48			149502
4-Methyl-2-pentanone	0.71	U	10	0.71	1	NA	4/9/09 14:48			149502
Acetone	3.4	J	20	1.2	1	NA	4/9/09 14:48			149502
Benzene	0.42	U	5.0	0.42	1	NA	4/9/09 14:48			149502
Bromodichloromethane	0.84	U	5.0	0.84	1	NA	4/9/09 14:48			149502
Bromoform	0.32	U	5.0	0.32	1	NA	4/9/09 14:48			149502
Bromomethane	0.58	U	5.0	0.58	1	NA	4/9/09 14:48			149502
Carbon Disulfide	0.63	J	10	0.52	1	NA	4/9/09 14:48			149502
Carbon Tetrachloride	0.36	U	5.0	0.36	1	NA	4/9/09 14:48			149502
Chlorobenzene	0.44	U	5.0	0.44	1	NA	4/9/09 14:48			149502
Chloroethane	3.0	J	5.0	0.36	1	NA	4/9/09 14:48			149502
Chloroform	0.22	U	5.0	0.22	1	NA	4/9/09 14:48			149502
Chloromethane	0.96	U	5.0	0.96	1	NA	4/9/09 14:48			149502
Dibromochloromethane	0.43	U	5.0	0.43	1	NA	4/9/09 14:48			149502
Methylene Chloride	0.50	U	5.0	0.50	1	NA	4/9/09 14:48			149502
Ethylbenzene	0.43	U	5.0	0.43	1	NA	4/9/09 14:48			149502
Styrene	0.37	U	5.0	0.37	1	NA	4/9/09 14:48			149502
Tetrachloroethene (PCE)	0.43	U	5.0	0.43	1	NA	4/9/09 14:48			149502
Toluene	0.42	U	5.0	0.42	1	NA	4/9/09 14:48			149502
Trichloroethene (TCE)	0.63	U	5.0	0.63	1	NA	4/9/09 14:48			149502
Vinyl Chloride	0.52	U	5.0	0.52	1	NA	4/9/09 14:48			149502
Xylenes, Total	1.5	U	5.0	1.5	1	NA	4/9/09 14:48			149502
cis-1,3-Dichloropropene	0.38	U	5.0	0.38	1	NA	4/9/09 14:48			149502
trans-1,3-Dichloropropene	0.25	U	5.0	0.25	1	NA	4/9/09 14:48			149502

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water  
**Sample Name:** WG-5513-032609-006  
**Lab Code:** R0901679-006

**Service Request:** R0901679  
**Date Collected:** 3/26/09 1145  
**Date Received:** 3/27/09  
**Units:** µg/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
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Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
4-Bromofluorobenzene	104	80-123	4/9/09 14:48		
Dibromofluoromethane	102	89-115	4/9/09 14:48		
Toluene-d8	100	88-124	4/9/09 14:48		

**Comments:** \_\_\_\_\_

Quantitation Report (Not Reviewed)

Data File : J:\ACQUDATA\MSVOA7\DATA\040909\M7622.D Vial: 1  
 Acq On : 9 Apr 2009 2:48 pm Operator: B.Bush  
 Sample : R0901679-006|1.0 Inst : MS #7  
 Misc : CRA, 8260, 4769, T4 Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Apr 9 15:18 2009 Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.85	168	600508	50.00	ppb	0.02
42) 1,4 - Difluorobenzene	12.20	114	1116911	50.00	ppb	0.03
63) d5 - Chlorobenzene	17.74	117	1132120	50.00	ppb	0.02
86) d4 - Dichlorobenzene	22.53	152	541493	50.00	ppb	0.03

System Monitoring Compounds

44) surr4,Dibrflmethane	10.88	113	431721	51.02	ppb	0.03
Spiked Amount	50.000	Range	89 - 115	Recovery	=	102.04%
48) surr1,1,2-Dicethane	11.50	65	415937	51.81	ppb	0.03
Spiked Amount	50.000	Range	80 - 120	Recovery	=	103.62%
69) surr3,Toluene-d8	14.93	98	1324778	50.05	ppb	0.03
Spiked Amount	50.000	Range	88 - 124	Recovery	=	100.10%
70) surr2,bfb	20.09	95	616255	51.84	ppb	0.03
Spiked Amount	50.000	Range	80 - 123	Recovery	=	103.68%

Target Compounds

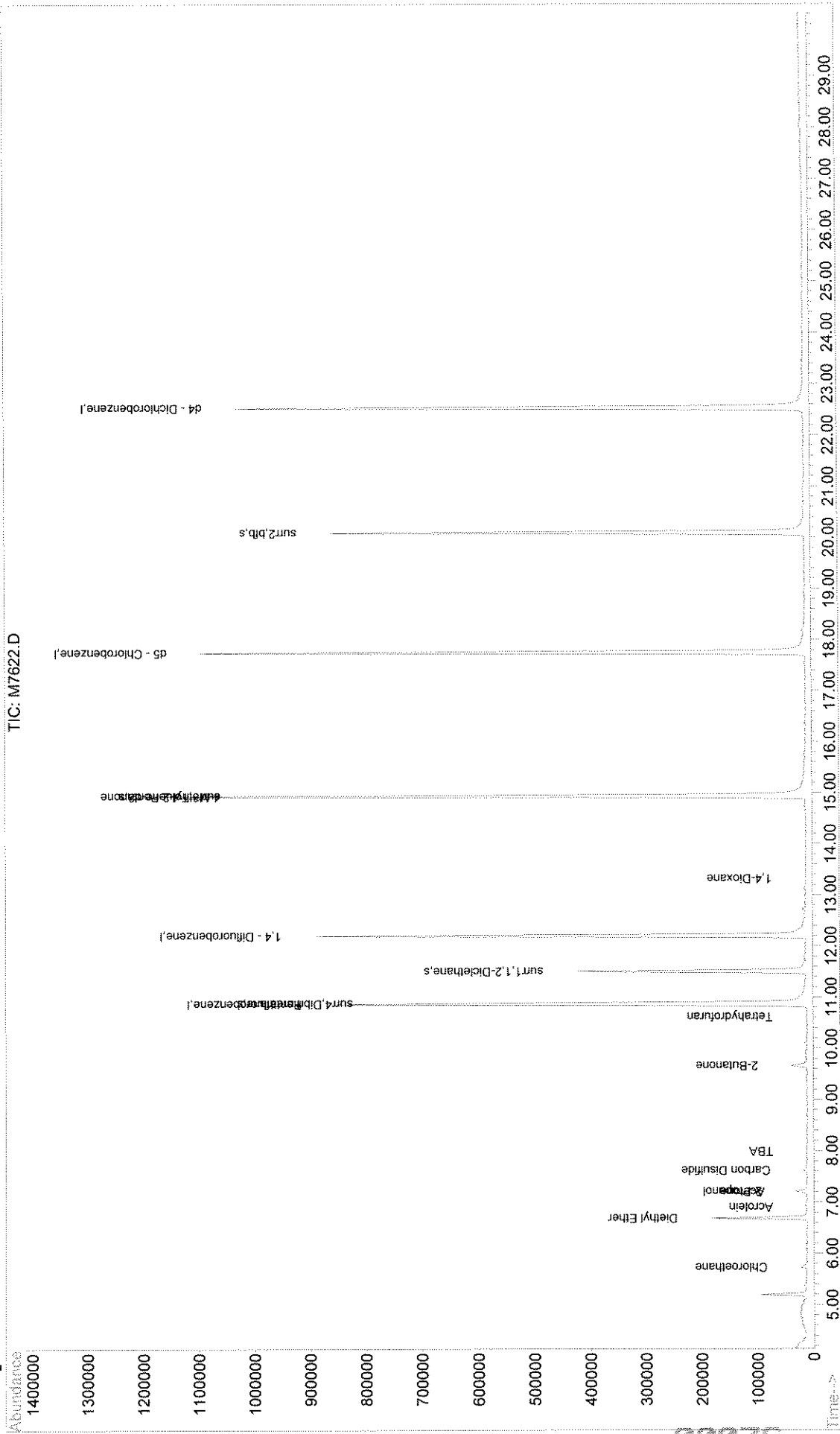
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
6) Chloroethane	5.74	64	16593	2.96	ppb	94
9) Diethyl Ether	6.69	59	130484	21.84	ppb	99
<del>12) Acrolein</del>	<del>6.89</del>	<del>56</del>	<del>601</del>	<del>0.75</del>	<del>ppb</del>	<del># 48</del>
15) Acetone	7.19	43	7774	3.42	ppb	93
<del>16) 2-Propanol</del>	<del>7.21</del>	<del>45</del>	<del>35137</del>	<del>94.68</del>	<del>ppb</del>	<del># 76</del>
18) Carbon Disulfide	7.62	76	15259	0.63	ppb	# 80
23) TBA	8.00	59	2977	5.85	ppb	99
<del>34) 2-Butanone</del>	<del>9.66</del>	<del>43</del>	<del>2453</del>	<del>0.57</del>	<del>ppb</del>	<del>93</del>
40) Tetrahydrofuran	10.63	42	1647	0.69	ppb	87
<del>52) N-Heptane</del>	<del>11.81</del>	<del>43</del>	<del>2188</del>	<del>Below Cal</del>	<del>#</del>	<del>51</del>
<del>57) 1,4-Dioxane</del>	<del>13.31</del>	<del>88</del>	<del>445</del>	<del>7.44</del>	<del>ppb</del>	<del># 64</del>
<del>64) 4-Methyl-2-Pentanone</del>	<del>14.92</del>	<del>43</del>	<del>8907</del>	<del>0.80</del>	<del>ppb</del>	<del># 1</del>
106) Hexachlorob	27.73	225	1144	Below Cal		96

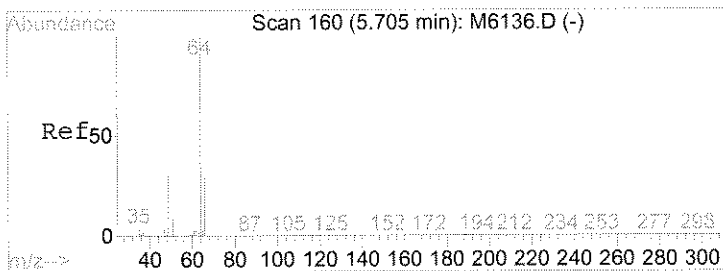
BB 4/14

Quantitation Report

Data File : J:\ACQDATA\MSVOA7\DATA\040909\M7622.D Vial: 1  
Acq On : 9 Apr 2009 2:48 pm Operator: B.Bush  
Sample : R0901679-006|1.0 Inst : MS #7  
Misc : CRA, 8260, 4769, T4 Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Apr 9 15:18 2009 Quant Results File: WAT0305.RES

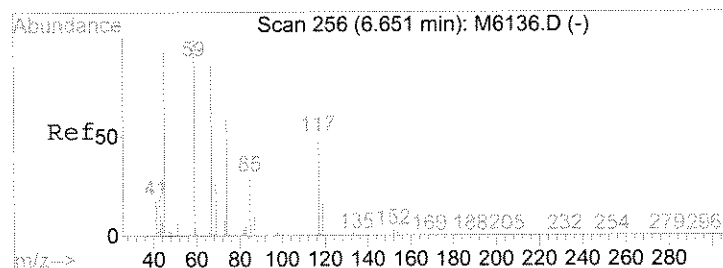
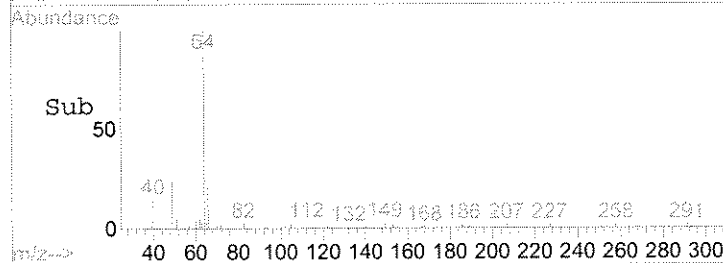
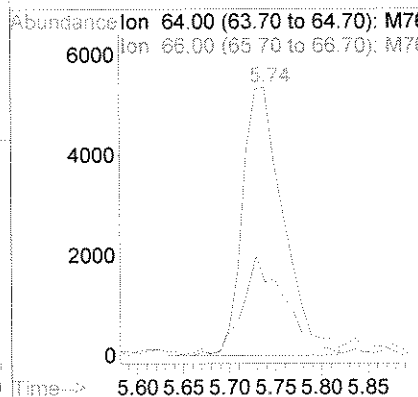
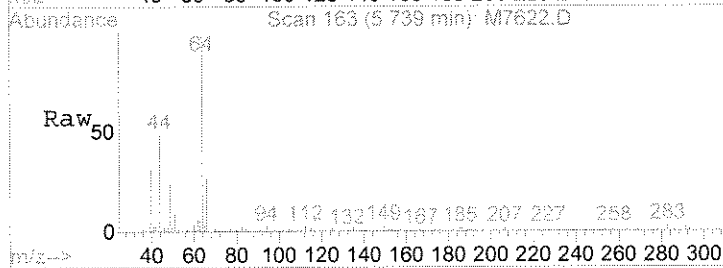
Method : J:\ACQDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
Title : 8260B.WATERS  
Last Update : Fri Mar 13 15:29:46 2009  
Response via : Initial Calibration





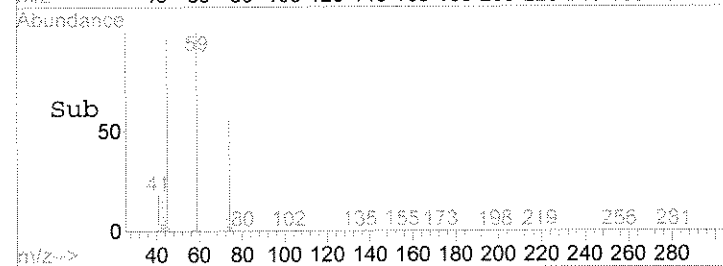
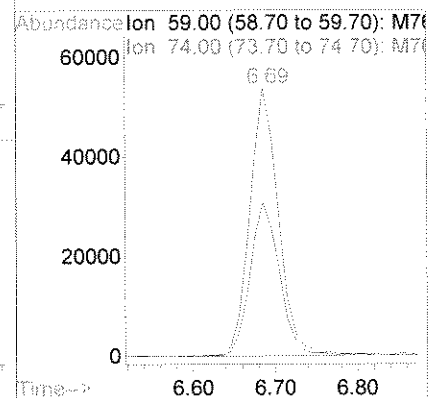
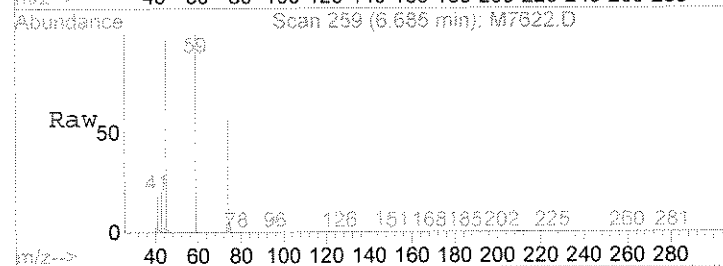
#6  
 Chloroethane  
 Concen: 2.96 ppb  
 RT: 5.74 min Scan# 163  
 Delta R.T. 0.02 min  
 Lab File: M7622.D  
 Acq: 9 Apr 2009 2:48 pm

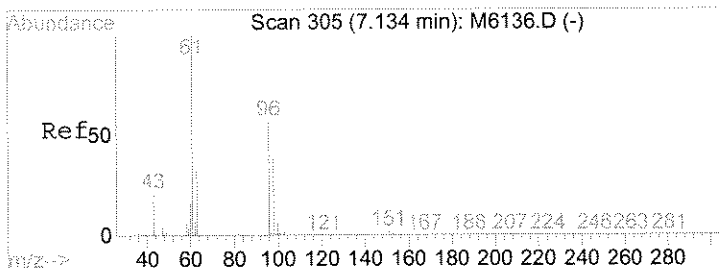
Tgt Ion: 64 Resp: 16593  
 Ion Ratio Lower Upper  
 64 100  
 66 27.4 24.8 37.2



#9  
 Diethyl Ether  
 Concen: 21.84 ppb  
 RT: 6.69 min Scan# 259  
 Delta R.T. 0.02 min  
 Lab File: M7622.D  
 Acq: 9 Apr 2009 2:48 pm

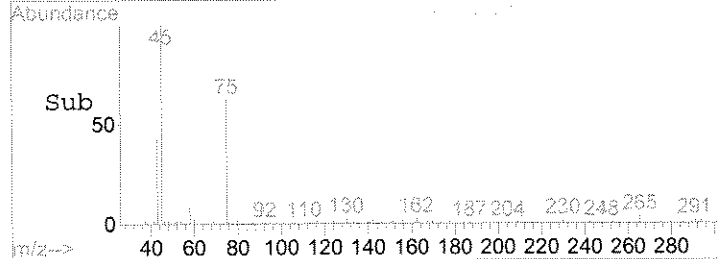
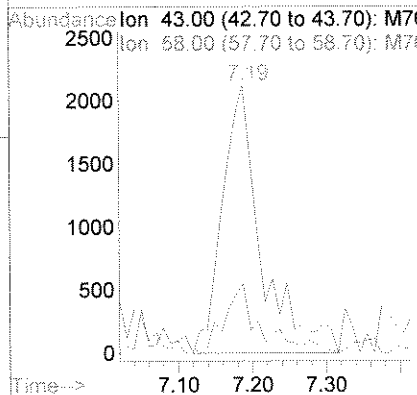
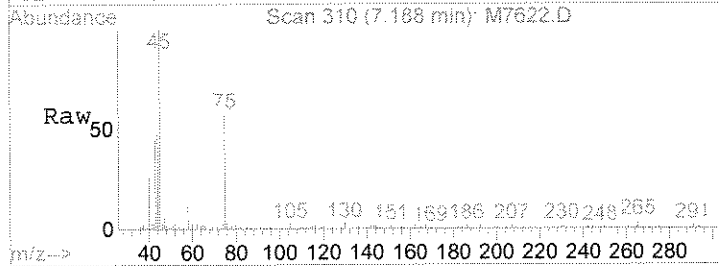
Tgt Ion: 59 Resp: 130484  
 Ion Ratio Lower Upper  
 59 100  
 74 57.3 43.6 72.7





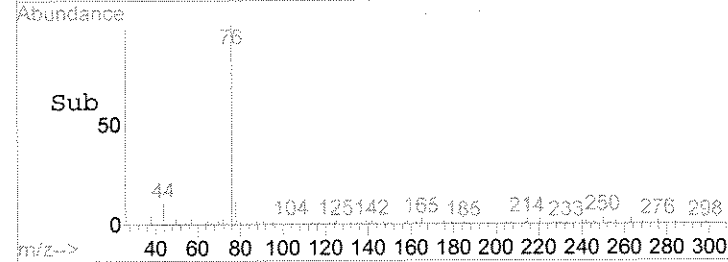
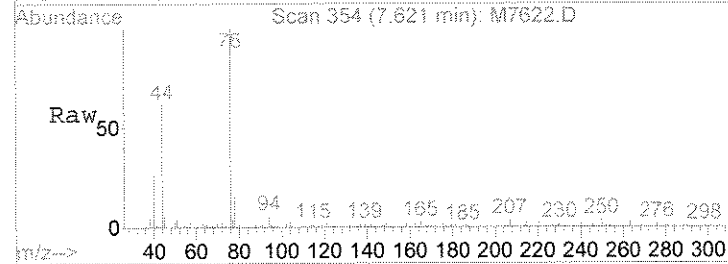
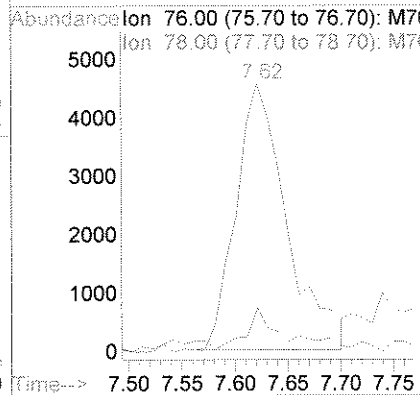
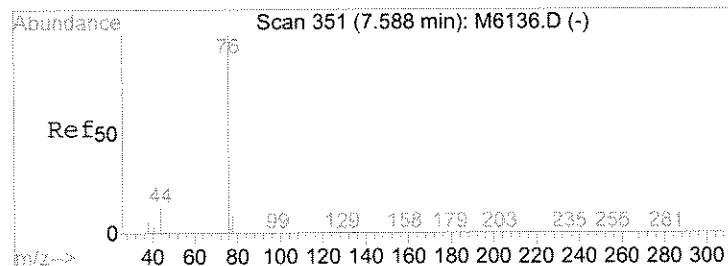
#15  
 Acetone  
 Concen: 3.42 ppb  
 RT: 7.19 min Scan# 310  
 Delta R.T. 0.03 min  
 Lab File: M7622.D  
 Acq: 9 Apr 2009 2:48 pm

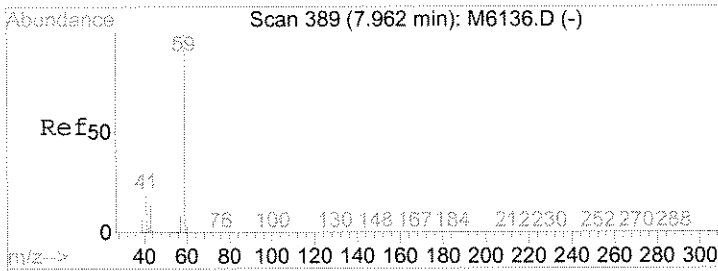
Tgt Ion	Resp	Lower	Upper
43	100		
58	25.9	23.6	35.4



#18  
 Carbon Disulfide  
 Concen: 0.63 ppb  
 RT: 7.62 min Scan# 354  
 Delta R.T. 0.03 min  
 Lab File: M7622.D  
 Acq: 9 Apr 2009 2:48 pm

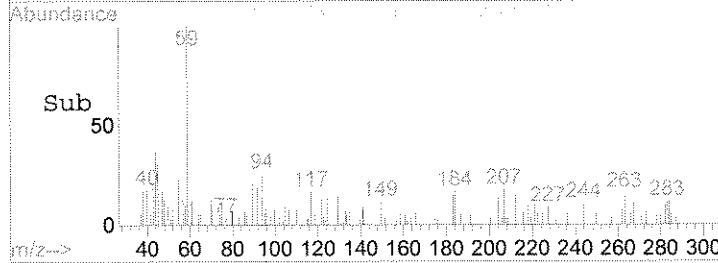
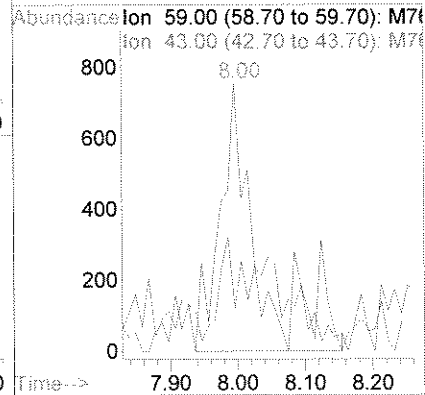
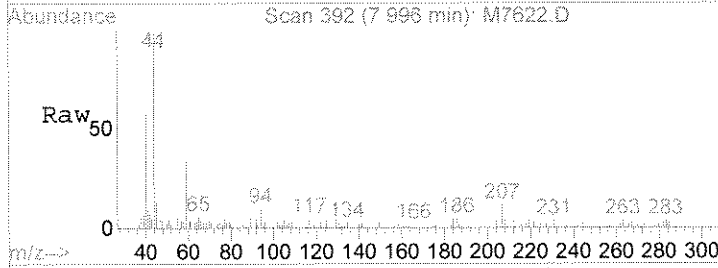
Tgt Ion	Resp	Lower	Upper
76	100		
78	16.4	6.4	12.0#





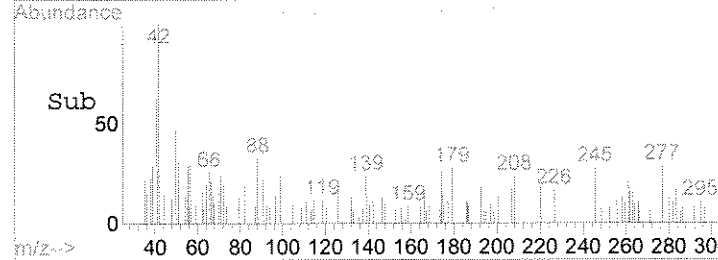
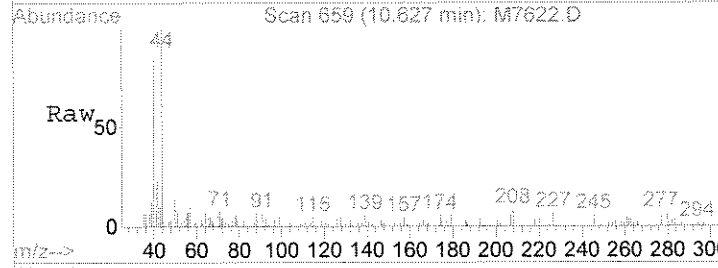
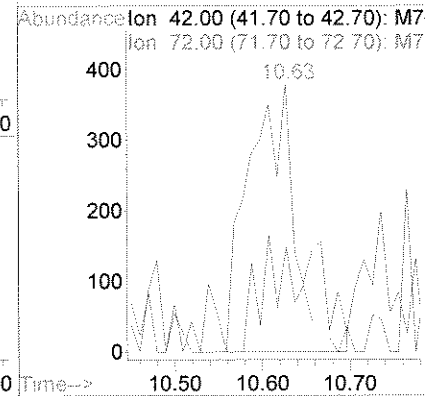
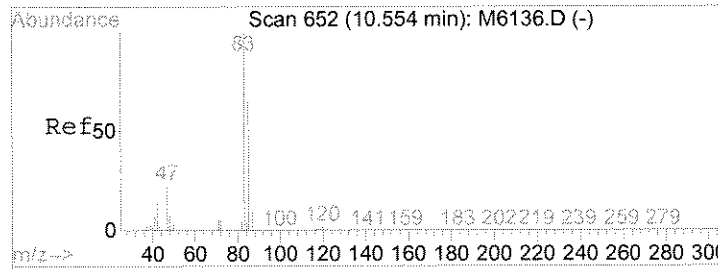
#23  
 TBA  
 Concen: 5.85 ppb  
 RT: 8.00 min Scan# 392  
 Delta R.T. 0.03 min  
 Lab File: M7622.D  
 Acq: 9 Apr 2009 2:48 pm

Tgt Ion: 59 Resp: 2977  
 Ion Ratio Lower Upper  
 59 100  
 43 15.9 12.3 18.5

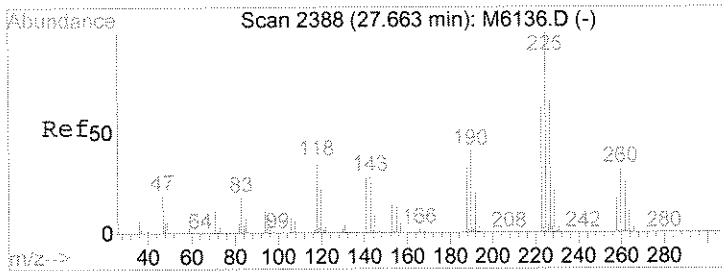


#40  
 Tetrahydrofuran  
 Concen: 0.69 ppb  
 RT: 10.63 min Scan# 659  
 Delta R.T. 0.06 min  
 Lab File: M7622.D  
 Acq: 9 Apr 2009 2:48 pm

Tgt Ion: 42 Resp: 1647  
 Ion Ratio Lower Upper  
 42 100  
 72 38.9 22.3 41.5

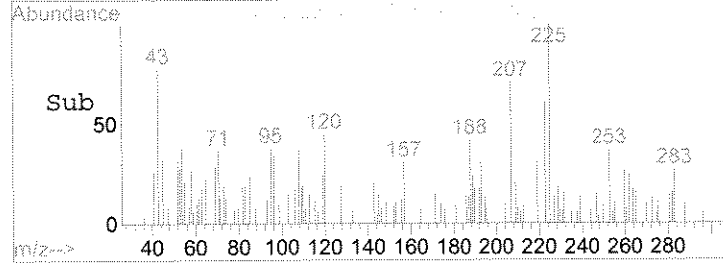
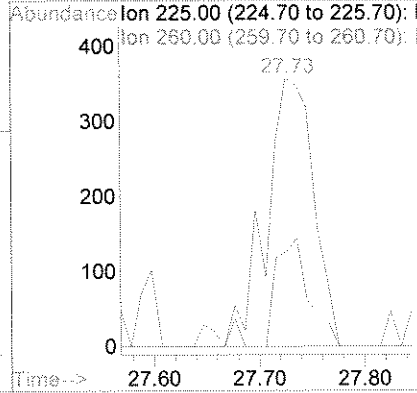
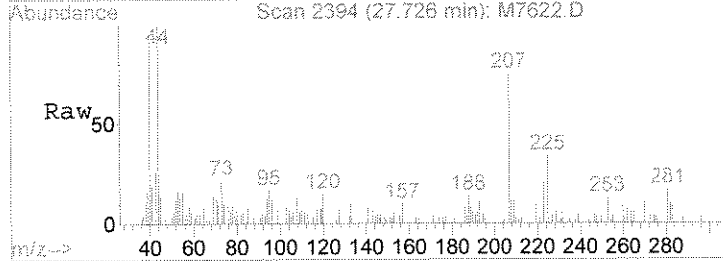






#106  
 Hexachlorobt  
 Concen: Below Cal  
 RT: 27.73 min Scan# 2394  
 Delta R.T. 0.02 min  
 Lab File: M7622.D  
 Acq: 9 Apr 2009 2:48 pm

Tgt Ion	225	260	Resp	1144	Lower	Upper
Ion Ratio	100	35.3			26.6	40.0



**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water  
**Sample Name:** WG-5513-032609-007  
**Lab Code:** R0901679-007

**Service Request:** R0901679  
**Date Collected:** 3/26/09 1245  
**Date Received:** 3/27/09  
**Units:** µg/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1-Trichloroethane (TCA)	1.2	U	13	1.2	2.5	NA	4/9/09 06:17		149259	
1,1,2,2-Tetrachloroethane	2.5	J	13	1.1	2.5	NA	4/9/09 06:17		149259	
1,1,2-Trichloroethane	1.2	U	13	1.2	2.5	NA	4/9/09 06:17		149259	
1,1-Dichloroethane (1,1-DCA)	1.6	U	13	1.6	2.5	NA	4/9/09 06:17		149259	
1,1-Dichloroethene (1,1-DCE)	3.6	J	13	1.5	2.5	NA	4/9/09 06:17		149259	
1,2-Dichloroethane	1.1	U	13	1.1	2.5	NA	4/9/09 06:17		149259	
1,2-Dichloroethene, Total	640	E	25	2.4	2.5	NA	4/9/09 06:17		149259	
1,2-Dichloropropane	0.90	U	13	0.90	2.5	NA	4/9/09 06:17		149259	
2-Butanone (MEK)	2.5	U	25	2.5	2.5	NA	4/9/09 06:17		149259	
2-Hexanone	2.0	U	25	2.0	2.5	NA	4/9/09 06:17		149259	
4-Methyl-2-pentanone	1.8	U	25	1.8	2.5	NA	4/9/09 06:17		149259	
Acetone	4.2	J	50	3.0	2.5	NA	4/9/09 06:17		149259	
Benzene	1.1	U	13	1.1	2.5	NA	4/9/09 06:17		149259	
Bromodichloromethane	2.1	U	13	2.1	2.5	NA	4/9/09 06:17		149259	
Bromoform	0.80	U	13	0.80	2.5	NA	4/9/09 06:17		149259	
Bromomethane	1.5	U	13	1.5	2.5	NA	4/9/09 06:17		149259	
Carbon Disulfide	1.3	U	25	1.3	2.5	NA	4/9/09 06:17		149259	
Carbon Tetrachloride	0.88	U	13	0.88	2.5	NA	4/9/09 06:17		149259	
Chlorobenzene	1.1	U	13	1.1	2.5	NA	4/9/09 06:17		149259	
Chloroethane	0.88	U	13	0.88	2.5	NA	4/9/09 06:17		149259	
Chloroform	4.6	J	13	0.55	2.5	NA	4/9/09 06:17		149259	
Chloromethane	2.4	U	13	2.4	2.5	NA	4/9/09 06:17		149259	
Dibromochloromethane	1.1	U	13	1.1	2.5	NA	4/9/09 06:17		149259	
Methylene Chloride	1.3	U	13	1.3	2.5	NA	4/9/09 06:17		149259	
Ethylbenzene	1.1	U	13	1.1	2.5	NA	4/9/09 06:17		149259	
Styrene	0.93	U	13	0.93	2.5	NA	4/9/09 06:17		149259	
Tetrachloroethene (PCE)	140		13	1.1	2.5	NA	4/9/09 06:17		149259	
Toluene	1.1	U	13	1.1	2.5	NA	4/9/09 06:17		149259	
Trichloroethene (TCE)	220		13	1.6	2.5	NA	4/9/09 06:17		149259	
Vinyl Chloride	160		13	1.3	2.5	NA	4/9/09 06:17		149259	
Xylenes, Total	3.6	U	13	3.6	2.5	NA	4/9/09 06:17		149259	
cis-1,3-Dichloropropene	0.95	U	13	0.95	2.5	NA	4/9/09 06:17		149259	
trans-1,3-Dichloropropene	0.63	U	13	0.63	2.5	NA	4/9/09 06:17		149259	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water  
**Sample Name:** WG-5513-032609-007  
**Lab Code:** R0901679-007

**Service Request:** R0901679  
**Date Collected:** 3/26/09 1245  
**Date Received:** 3/27/09  
**Units:** µg/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis		
								Lot	Lot	Note
<b>Surrogate Name</b>			<b>%Rec</b>	<b>Control Limits</b>		<b>Date Analyzed</b>	<b>Q</b>	<b>Note</b>		
4-Bromofluorobenzene			103	80-123		4/9/09 06:17				
Dibromofluoromethane			113	89-115		4/9/09 06:17				
Toluene-d8			80 *	88-124		4/9/09 06:17				

**Comments:**

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Data File : J:\ACQUDATA\MSVOA7\DATA\040809\M7609.D  
 Acq On : 9 Apr 2009 6:17 am  
 Sample : R0901679-007|2.5  
 Misc : CRA, 8260, 4769, T4  
 MS Integration Params: RTEINT.P  
 Quant Time: Apr 17 14:53 2009

Vial: 30  
 Operator: B.Bush  
 Inst : MS #7  
 Multiplr: 1.00

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

report 3/15/09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Pentafluorobenzene	10.86	168	579625	50.00	ppb	0.03
42) 1,4 - Difluorobenzene	12.20	114	1006291	50.00	ppb	0.03
63) d5 - Chlorobenzene	17.75	117	1100608	50.00	ppb	0.03
86) d4 - Dichlorobenzene	22.54	152	509017	50.00	ppb	0.04

System Monitoring Compounds

44) surr4, Dibrflmethane	10.89	113	430620	56.49	ppb	0.04
Spiked Amount	50.000	Range	89 - 115	Recovery	=	112.98%
48) surr1, 1,2-Dicethane	11.51	65	415270	57.41	ppb	0.04
Spiked Amount	50.000	Range	80 - 120	Recovery	=	114.82%
69) surr3, Toluene-d8	14.94	98	1026999	39.91	ppb	0.04
Spiked Amount	50.000	Range	88 - 124	Recovery	=	79.82%#
70) surr2, bfb	20.10	95	594470	51.44	ppb	0.04
Spiked Amount	50.000	Range	80 - 123	Recovery	=	102.88%

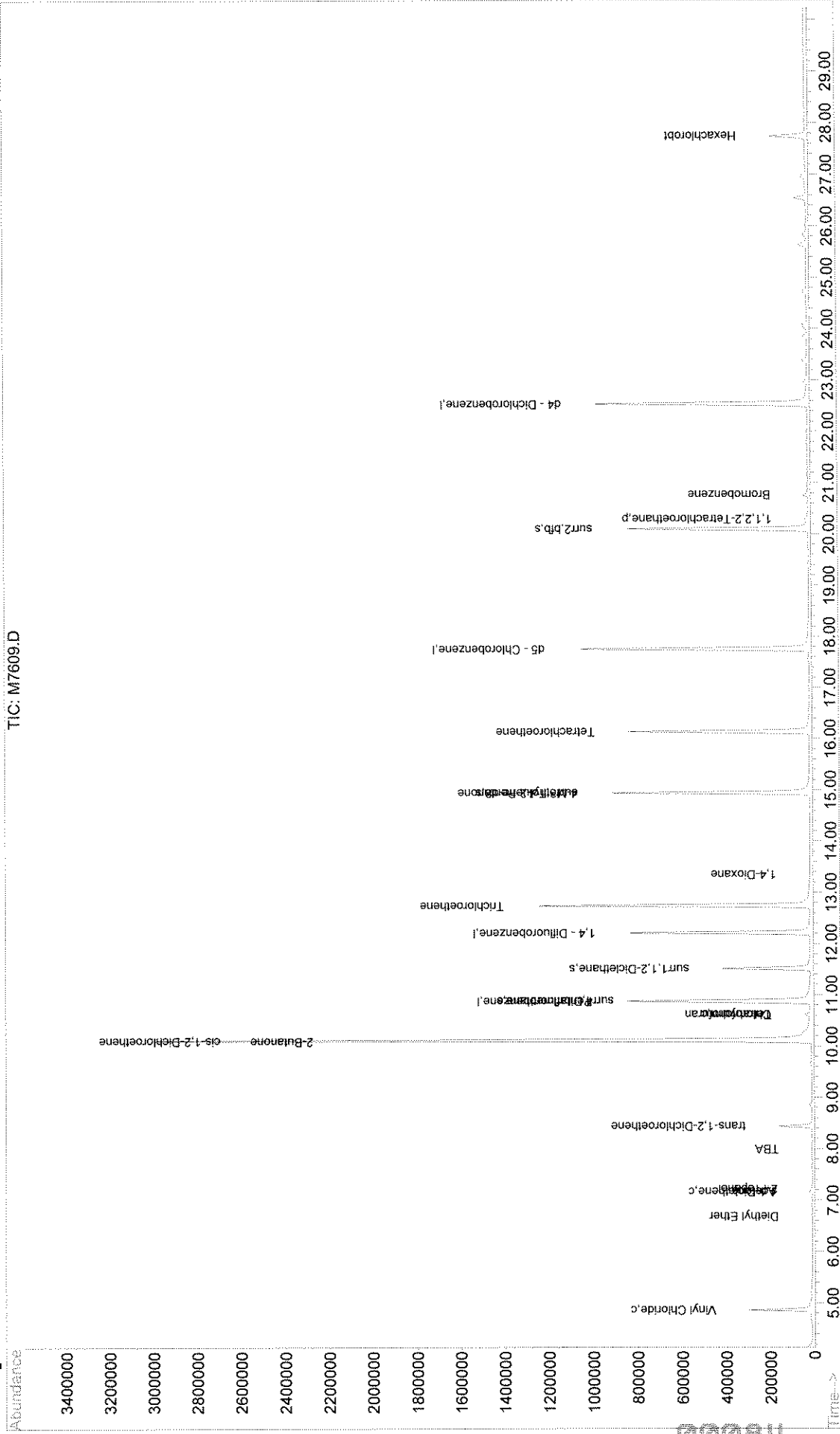
Target Compounds

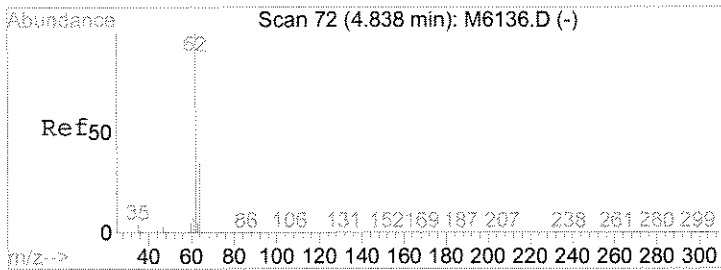
	R.T.	QIon	Response	Conc	Units	Qvalue
4) Vinyl Chloride	4.86	62	405533	62.54	ppb	100
9) Diethyl Ether	6.70	59	2278	0.40	ppb	# 78
14) 1,1-Dicethane	7.17	96	8084	1.44	ppb	84
15) Acetone	7.18	43	3704	1.69	ppb	# 71
16) 2-Propanol	7.22	45	9135	25.50	ppb	# 75
26) trans-1,2-Dichloroethene	8.44	96	78105	10.88	ppb	92
35) cis-1,2-Dichloroethene	10.11	96	1941975	244.37	ppb	97E
39) Chloroform	10.61	83	24581	1.83	ppb	98
40) Tetrahydrofuran	10.63	42	1684	0.73	ppb	# 72
53) Trichloroethene	12.74	95	684895	86.93	ppb	97
71) Tetrachloroethene	16.14	166	426974	54.03	ppb	94
87) 1,1,2,2-Tetrachloroethane	20.31	83	10664	1.00	ppb	89
106) Hexachlorobt	27.75	225	67858	27.21	ppb	99

Quantitation Report

Data File : J:\ACQDATA\MSVOA7\DATA\040809\M7609.D Vial: 30  
 Acq On : 9 Apr 2009 6:17 am Operator: B.Bush  
 Sample : R0901679-007|2.5 Inst : MS #7  
 Misc : CRA, 8260, 4769, T4 Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Apr 9 6:47 2009 Quant Results File: WAT0305.RES

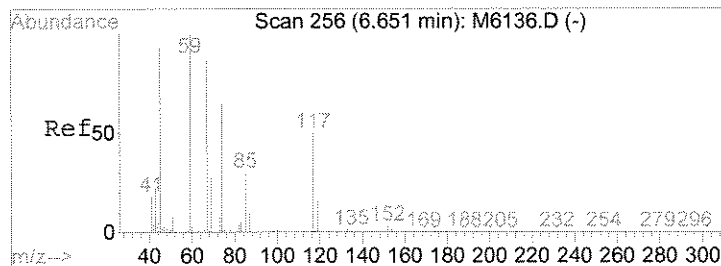
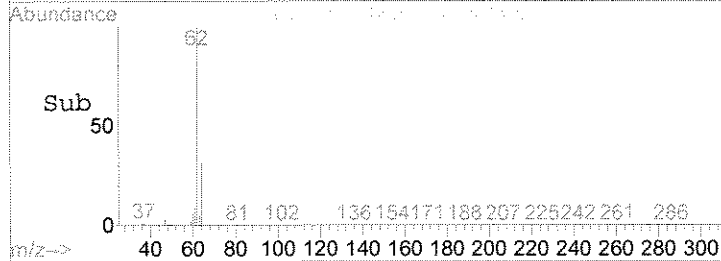
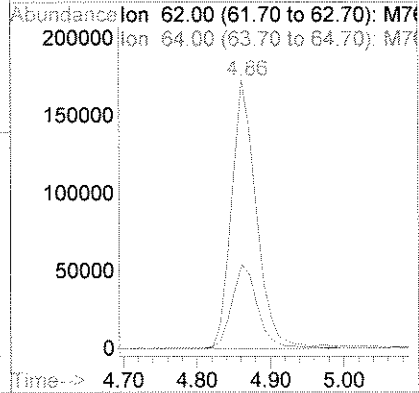
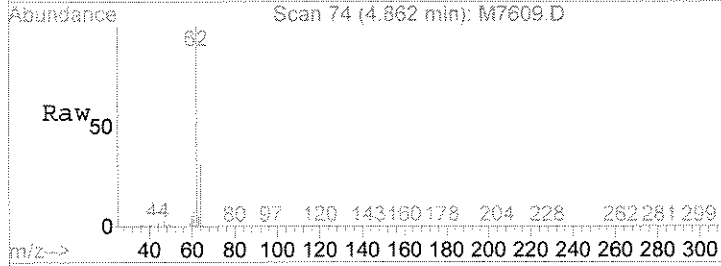
Method : J:\ACQDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Initial Calibration





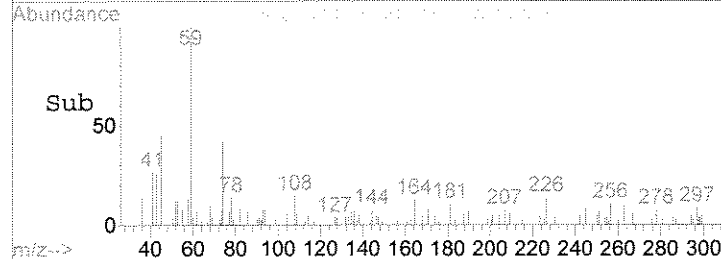
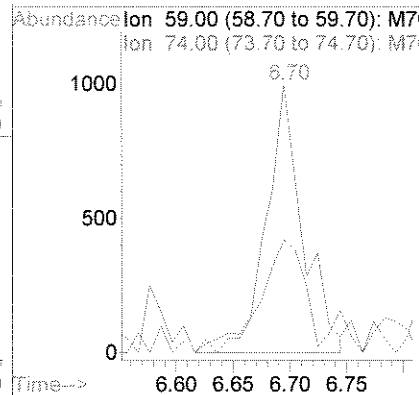
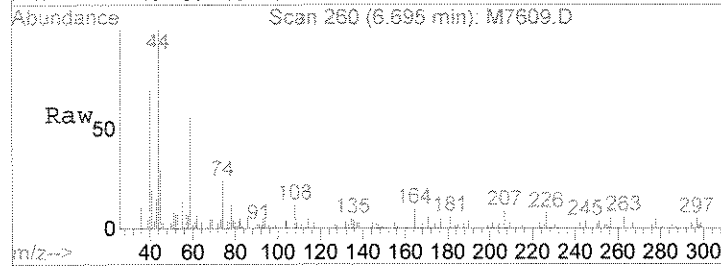
#4  
 Vinyl Chloride  
 Concen: 62.54 ppb  
 RT: 4.86 min Scan# 74  
 Delta R.T. 0.02 min  
 Lab File: M7609.D  
 Acq: 9 Apr 2009 6:17 am

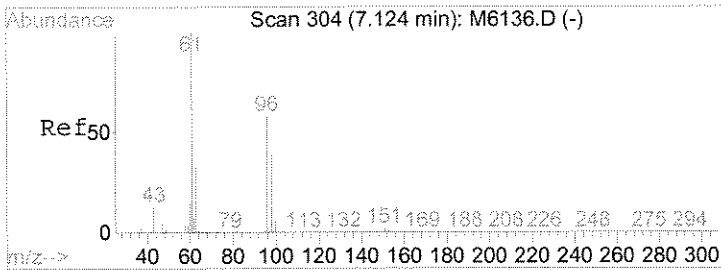
Tgt Ion: 62 Resp: 405533  
 Ion Ratio Lower Upper  
 62 100  
 64 31.3 25.0 37.4



#9  
 Diethyl Ether  
 Concen: 0.40 ppb  
 RT: 6.70 min Scan# 260  
 Delta R.T. 0.03 min  
 Lab File: M7609.D  
 Acq: 9 Apr 2009 6:17 am

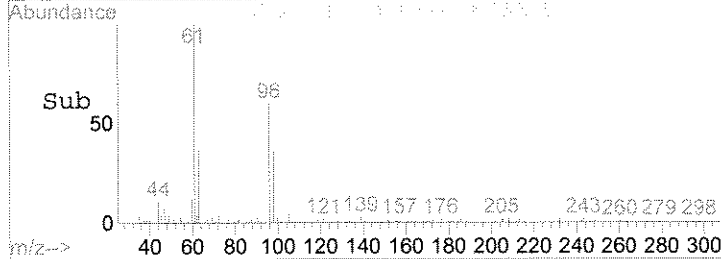
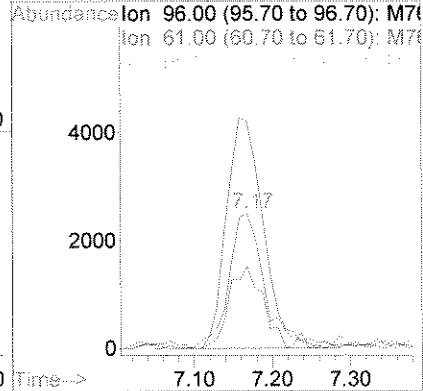
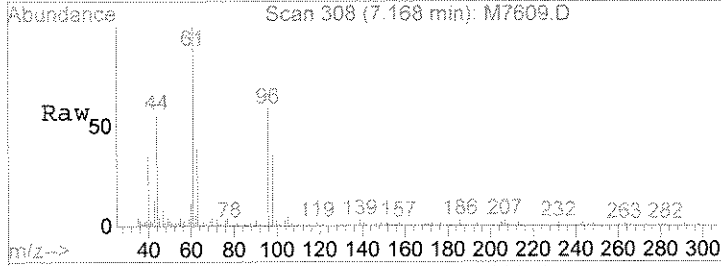
Tgt Ion: 59 Resp: 2278  
 Ion Ratio Lower Upper  
 59 100  
 74 41.9 43.6 72.7#





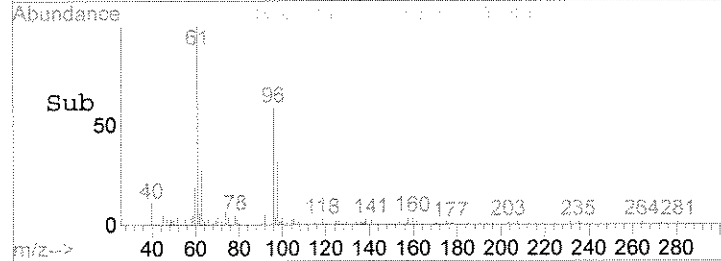
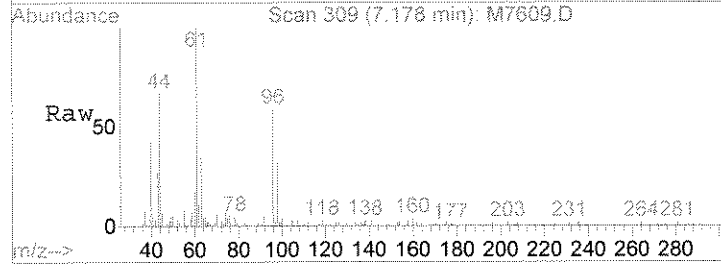
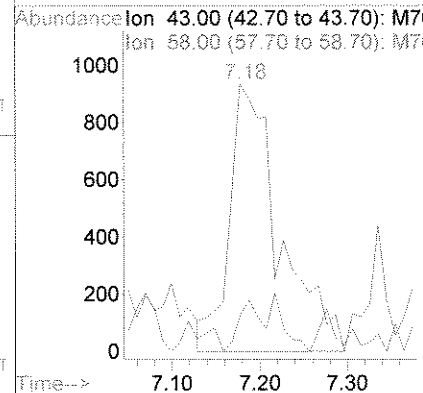
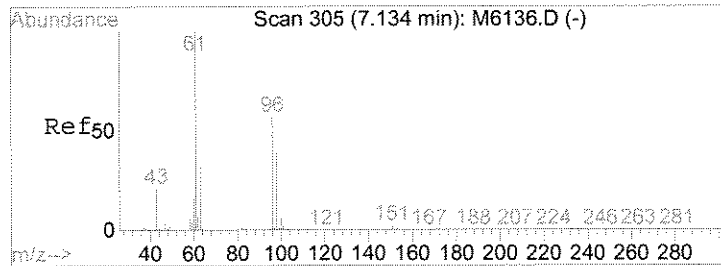
#14  
 1,1-Diclcethene  
 Concen: 1.44 ppb  
 RT: 7.17 min Scan# 308  
 Delta R.T. 0.04 min  
 Lab File: M7609.D  
 Acq: 9 Apr 2009 6:17 am

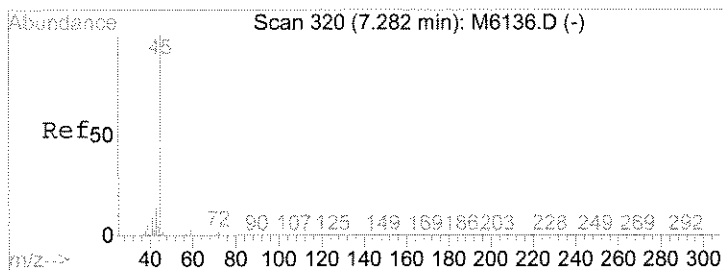
Tgt Ion	Resp	Lower	Upper
96	8084		
61	168.5	158.9	238.3
98	60.5	51.8	77.8



#15  
 Acetone  
 Concen: 1.69 ppb  
 RT: 7.18 min Scan# 309  
 Delta R.T. 0.02 min  
 Lab File: M7609.D  
 Acq: 9 Apr 2009 6:17 am

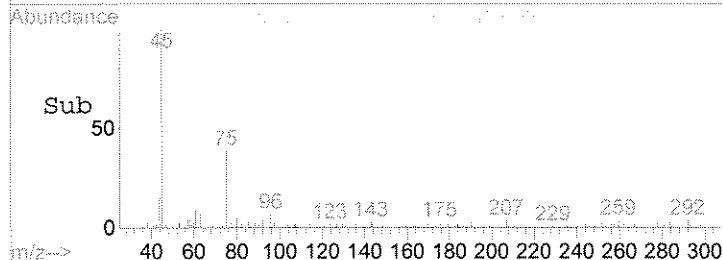
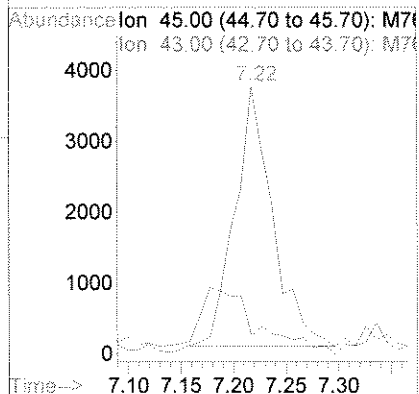
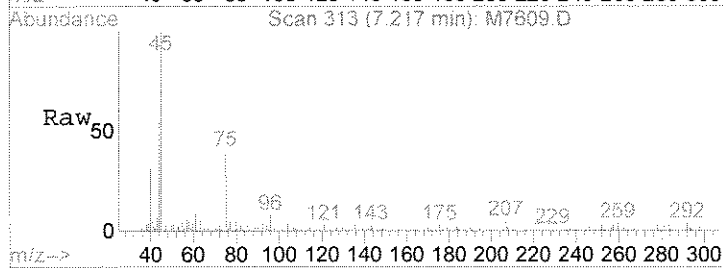
Tgt Ion	Resp	Lower	Upper
43	3704		
58	13.8	23.6	35.4#





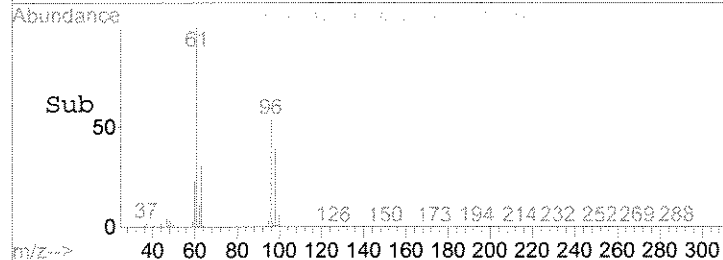
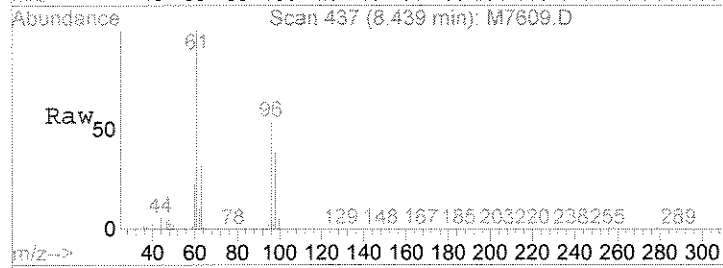
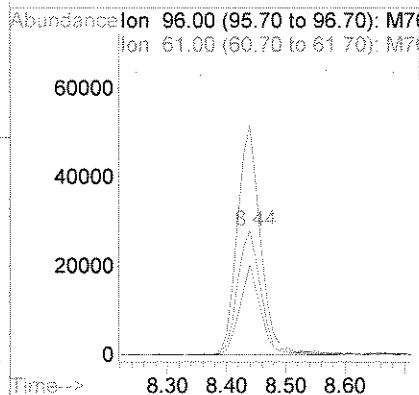
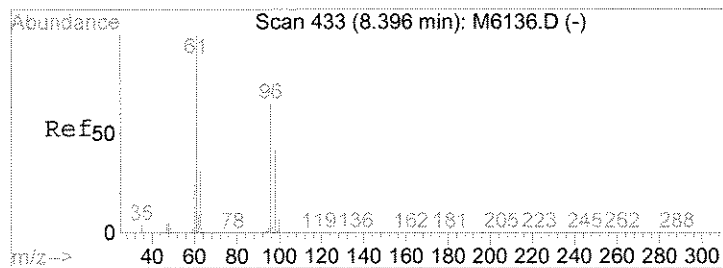
#16  
 2-Propanol  
 Concen: 25.50 ppb  
 RT: 7.22 min Scan# 313  
 Delta R.T. -0.07 min  
 Lab File: M7609.D  
 Acq: 9 Apr 2009 6:17 am

Tgt Ion	Resp	Lower	Upper
45	100		
43	6.7	13.1	21.9#

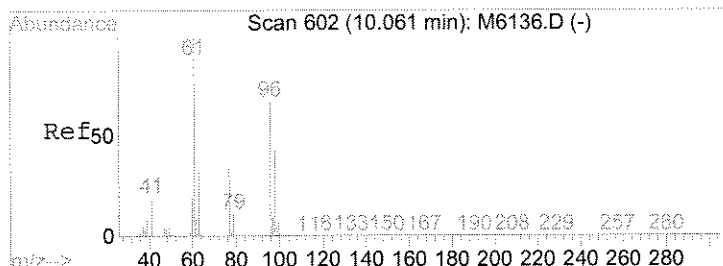


#26  
 trans-1,2-Dichloroethene  
 Concen: 10.88 ppb  
 RT: 8.44 min Scan# 437  
 Delta R.T. 0.03 min  
 Lab File: M7609.D  
 Acq: 9 Apr 2009 6:17 am

Tgt Ion	Resp	Lower	Upper
96	100		
61	185.5	139.4	209.0
98	72.7	52.4	78.6

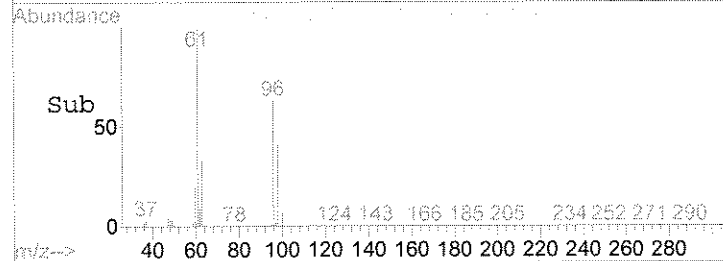
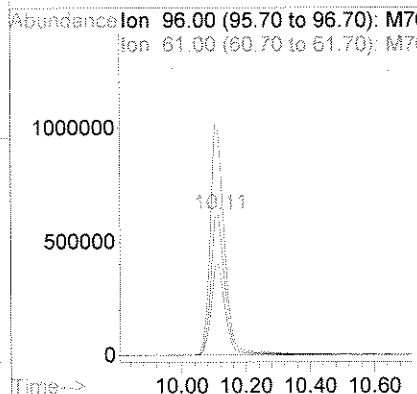
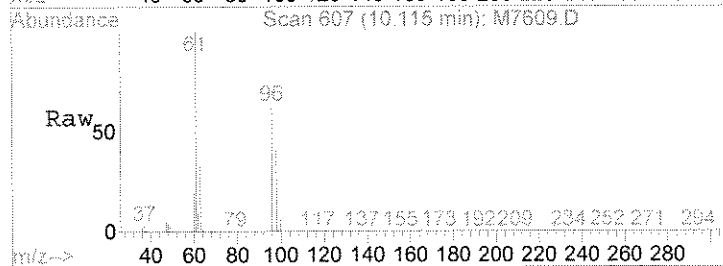






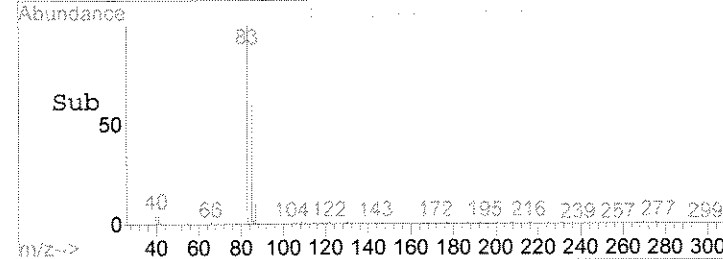
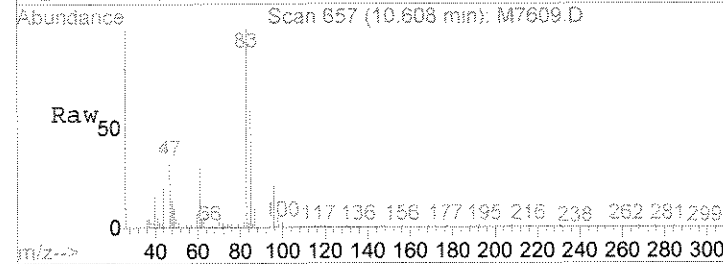
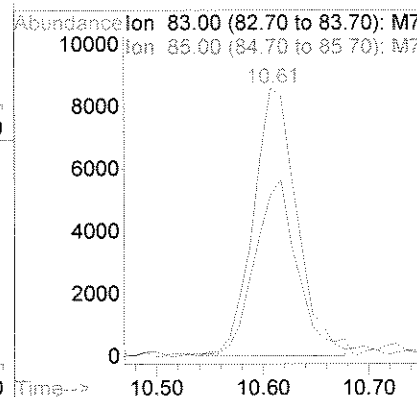
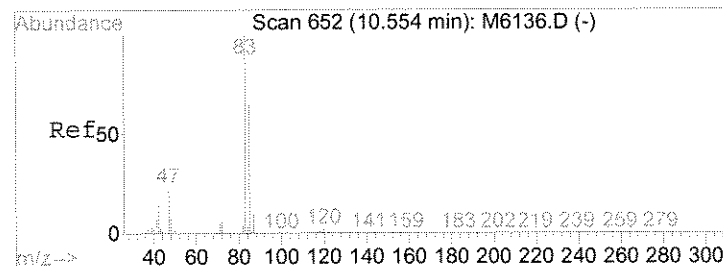
#35  
 cis-1,2-Dichloroethene  
 Concen: 244.37 ppb  
 RT: 10.11 min Scan# 607  
 Delta R.T. 0.04 min  
 Lab File: M7609.D  
 Acq: 9 Apr 2009 6:17 am

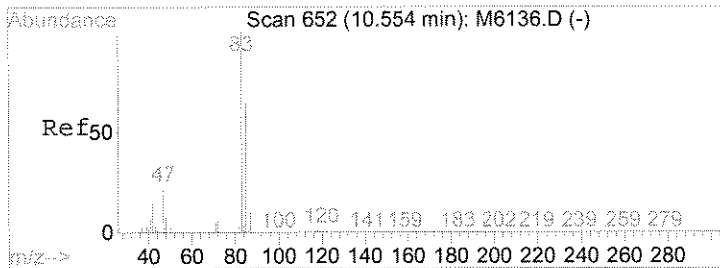
Tgt Ion	Resp	Lower	Upper
96	100		
61	159.9	132.2	198.2
98	64.9	51.7	77.5



#39  
 Chloroform  
 Concen: 1.83 ppb  
 RT: 10.61 min Scan# 657  
 Delta R.T. 0.03 min  
 Lab File: M7609.D  
 Acq: 9 Apr 2009 6:17 am

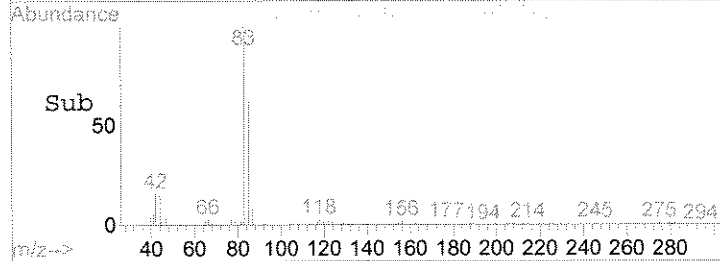
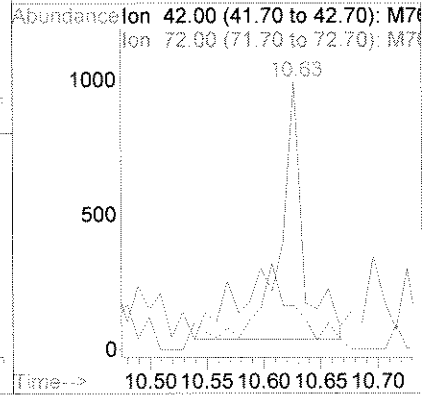
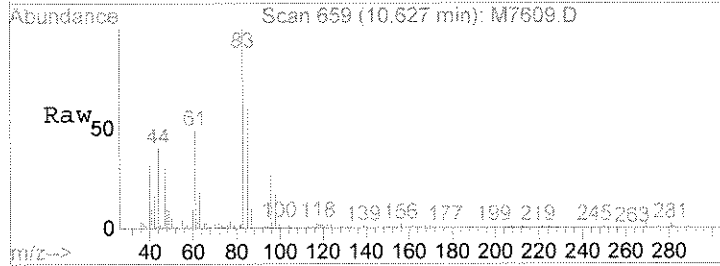
Tgt Ion	Resp	Lower	Upper
83	100		
85	60.3	49.7	74.5





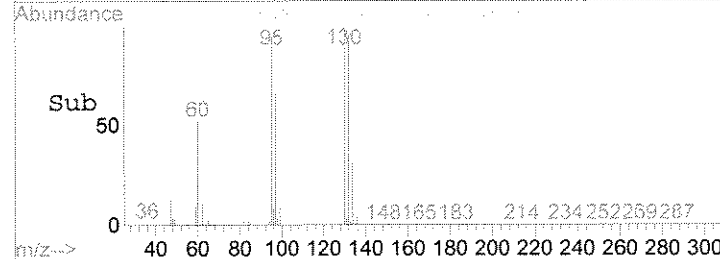
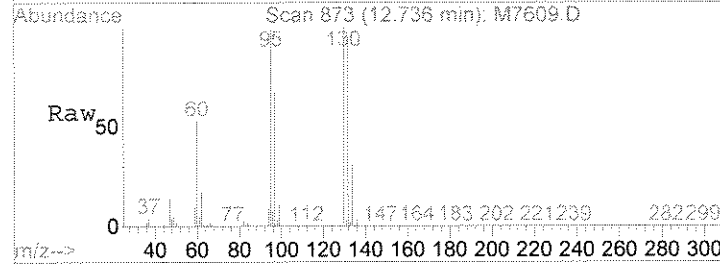
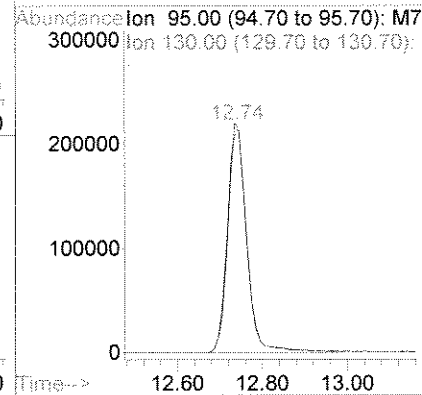
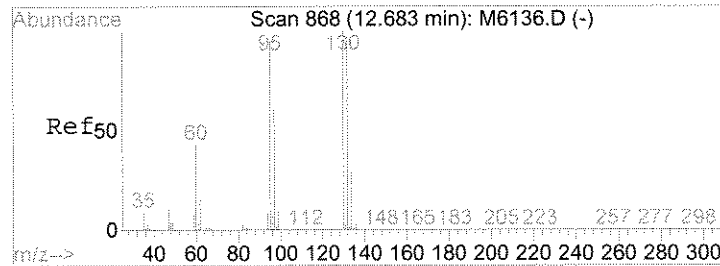
#40  
 Tetrahydrofuran  
 Concen: 0.73 ppb  
 RT: 10.63 min Scan# 659  
 Delta R.T. 0.06 min  
 Lab File: M7609.D  
 Acq: 9 Apr 2009 6:17 am

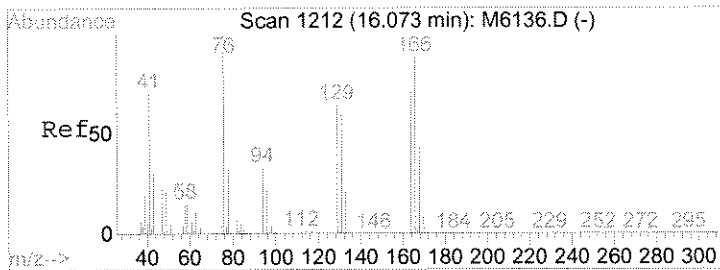
Tgt Ion	Resp	Lower	Upper
42	100		
72	16.3	22.3	41.5#



#53  
 Trichloroethene  
 Concen: 86.93 ppb  
 RT: 12.74 min Scan# 873  
 Delta R.T. 0.03 min  
 Lab File: M7609.D  
 Acq: 9 Apr 2009 6:17 am

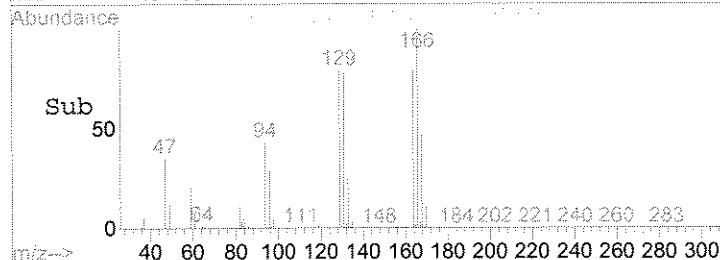
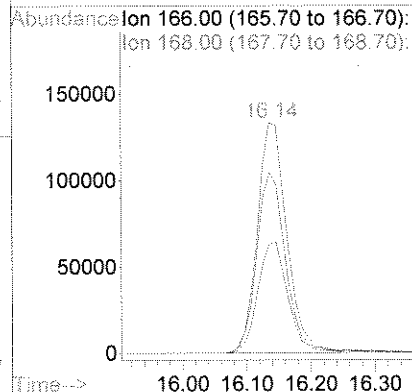
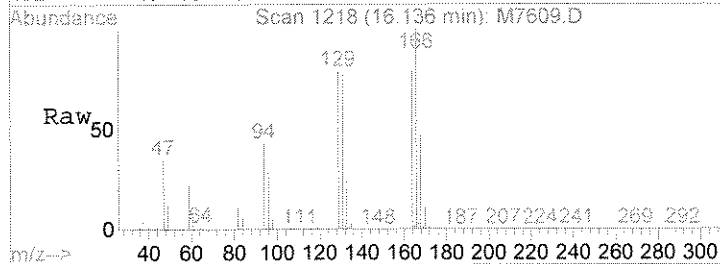
Tgt Ion	Resp	Lower	Upper
95	100		
130	101.0	77.4	116.2
132	96.0	76.2	114.4





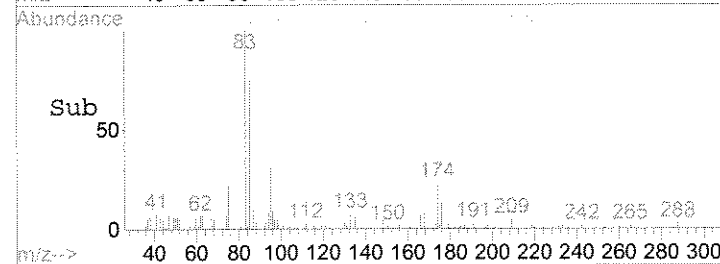
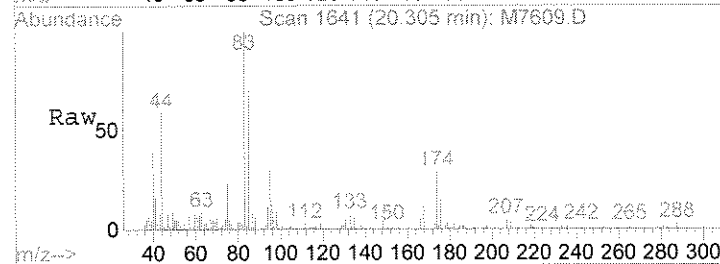
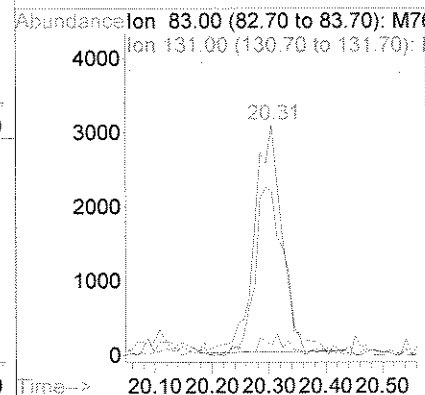
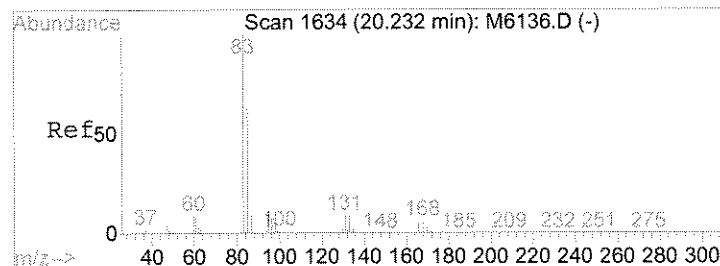
#71  
 Tetrachloroethene  
 Concen: 54.03 ppb  
 RT: 16.14 min Scan# 1218  
 Delta R.T. 0.03 min  
 Lab File: M7609.D  
 Acq: 9 Apr 2009 6:17 am

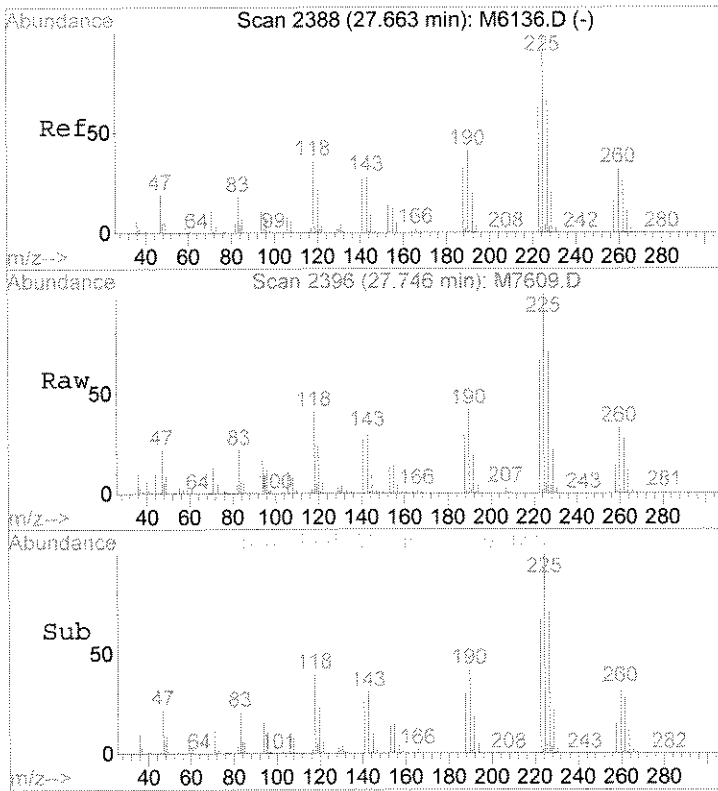
Tgt Ion	Resp	Lower	Upper
166	100		
168	47.3	39.4	59.0
129	78.5	57.7	86.5



#87  
 1,1,2,2-Tetrachloroethane  
 Concen: 1.00 ppb  
 RT: 20.31 min Scan# 1641  
 Delta R.T. 0.04 min  
 Lab File: M7609.D  
 Acq: 9 Apr 2009 6:17 am

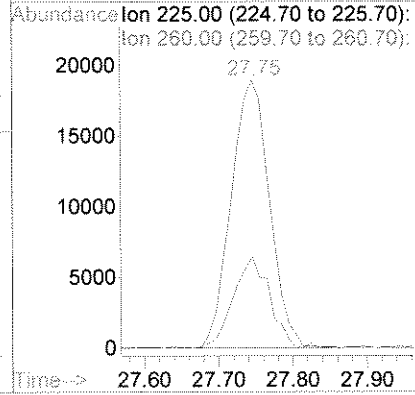
Tgt Ion	Resp	Lower	Upper
83	100		
131	6.0	6.0	9.0
85	71.4	49.6	74.4





#106  
 Hexachlorobt  
 Concen: 27.21 ppb  
 RT: 27.75 min Scan# 2396  
 Delta R.T. 0.04 min  
 Lab File: M7609.D  
 Acq: 9 Apr 2009 6:17 am

Tgt Ion	225	260	Resp	67858	Lower	Upper
Ion Ratio	100	32.5			26.6	40.0



**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water  
**Sample Name:** WG-5513-032609-007  
**Lab Code:** R0901679-007  
**Run Type:** Dilution

**Service Request:** R0901679  
**Date Collected:** 3/26/09 1245  
**Date Received:** 3/27/09  
**Units:** µg/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution	Date	Date	Extraction Analysis		
					Factor	Extracted	Analyzed	Lot	Lot	Note
1,1,1-Trichloroethane (TCA)	2.3	U	25	2.3	5	NA	4/9/09 15:27			149502
1,1,2,2-Tetrachloroethane	2.7	DJ	25	2.2	5	NA	4/9/09 15:27			149502
1,1,2-Trichloroethane	2.3	U	25	2.3	5	NA	4/9/09 15:27			149502
1,1-Dichloroethane (1,1-DCA)	3.2	U	25	3.2	5	NA	4/9/09 15:27			149502
1,1-Dichloroethene (1,1-DCE)	5.3	DJ	25	3.0	5	NA	4/9/09 15:27			149502
1,2-Dichloroethane	2.1	U	25	2.1	5	NA	4/9/09 15:27			149502
1,2-Dichloroethene, Total	720	D	50	4.7	5	NA	4/9/09 15:27			149502
1,2-Dichloropropane	1.8	U	25	1.8	5	NA	4/9/09 15:27			149502
2-Butanone (MEK)	5.0	U	50	5.0	5	NA	4/9/09 15:27			149502
2-Hexanone	4.0	U	50	4.0	5	NA	4/9/09 15:27			149502
4-Methyl-2-pentanone	3.6	U	50	3.6	5	NA	4/9/09 15:27			149502
Acetone	6.4	DJ	100	6.0	5	NA	4/9/09 15:27			149502
Benzene	2.1	U	25	2.1	5	NA	4/9/09 15:27			149502
Bromodichloromethane	4.2	U	25	4.2	5	NA	4/9/09 15:27			149502
Bromoform	1.6	U	25	1.6	5	NA	4/9/09 15:27			149502
Bromomethane	2.9	U	25	2.9	5	NA	4/9/09 15:27			149502
Carbon Disulfide	2.6	U	50	2.6	5	NA	4/9/09 15:27			149502
Carbon Tetrachloride	1.8	U	25	1.8	5	NA	4/9/09 15:27			149502
Chlorobenzene	2.2	U	25	2.2	5	NA	4/9/09 15:27			149502
Chloroethane	1.8	U	25	1.8	5	NA	4/9/09 15:27			149502
Chloroform	5.1	DJ	25	1.1	5	NA	4/9/09 15:27			149502
Chloromethane	4.8	U	25	4.8	5	NA	4/9/09 15:27			149502
Dibromochloromethane	2.2	U	25	2.2	5	NA	4/9/09 15:27			149502
Methylene Chloride	2.5	U	25	2.5	5	NA	4/9/09 15:27			149502
Ethylbenzene	2.2	U	25	2.2	5	NA	4/9/09 15:27			149502
Styrene	1.9	U	25	1.9	5	NA	4/9/09 15:27			149502
Tetrachloroethene (PCE)	160	D	25	2.2	5	NA	4/9/09 15:27			149502
Toluene	2.1	U	25	2.1	5	NA	4/9/09 15:27			149502
Trichloroethene (TCE)	230	D	25	3.2	5	NA	4/9/09 15:27			149502
Vinyl Chloride	220	D	25	2.6	5	NA	4/9/09 15:27			149502
Xylenes, Total	7.1	U	25	7.1	5	NA	4/9/09 15:27			149502
cis-1,3-Dichloropropene	1.9	U	25	1.9	5	NA	4/9/09 15:27			149502
trans-1,3-Dichloropropene	1.3	U	25	1.3	5	NA	4/9/09 15:27			149502

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water  
**Sample Name:** WG-5513-032609-007  
**Lab Code:** R0901679-007  
**Run Type:** Dilution

**Service Request:** R0901679  
**Date Collected:** 3/26/09 1245  
**Date Received:** 3/27/09  
**Units:** µg/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
<b>Surrogate Name</b>			<b>%Rec</b>	<b>Control Limits</b>		<b>Date Analyzed</b>	<b>Q</b>		<b>Note</b>	
4-Bromofluorobenzene			103	80-123		4/9/09 15:27				
Dibromofluoromethane			106	89-115		4/9/09 15:27				
Toluene-d8			88	88-124		4/9/09 15:27				

**Comments:**

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Quantitation Report (Not Reviewed)

Data File : J:\ACQUDATA\MSVOA7\DATA\040909\M7623.D  
 Acq On : 9 Apr 2009 3:27 pm  
 Sample : R0901679-007|2.0 S.D 88  
 Misc : CRA, 8260, 4769, T4  
 MS Integration Params: RTEINT.P  
 Quant Time: Apr 9 15:57 2009

Vial: 2  
 Operator: B.Bush  
 Inst : MS #7  
 Multiplr: 1.00

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

DL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.86	168	593110	50.00	ppb	0.02
42) 1,4 - Difluorobenzene	12.20	114	1130752	50.00	ppb	0.02
63) d5 - Chlorobenzene	17.75	117	1168502	50.00	ppb	0.02
86) d4 - Dichlorobenzene	22.53	152	550410	50.00	ppb	0.02

System Monitoring Compounds

44) surr4, Dibrflmethane	10.88	113	453601	52.95	ppb	0.02
Spiked Amount	50.000	Range 89 - 115	Recovery =	105.90%		
48) surr1, 1,2-Dicethane	11.50	65	433441	53.33	ppb	0.02
Spiked Amount	50.000	Range 80 - 120	Recovery =	106.66%		
69) surr3, Toluene-d8	14.93	98	1195416	43.76	ppb	0.02
Spiked Amount	50.000	Range 88 - 124	Recovery =	87.52%#		
70) surr2, bfb	20.08	95	632007	51.51	ppb	0.02
Spiked Amount	50.000	Range 80 - 123	Recovery =	103.02%		

OK rounds up

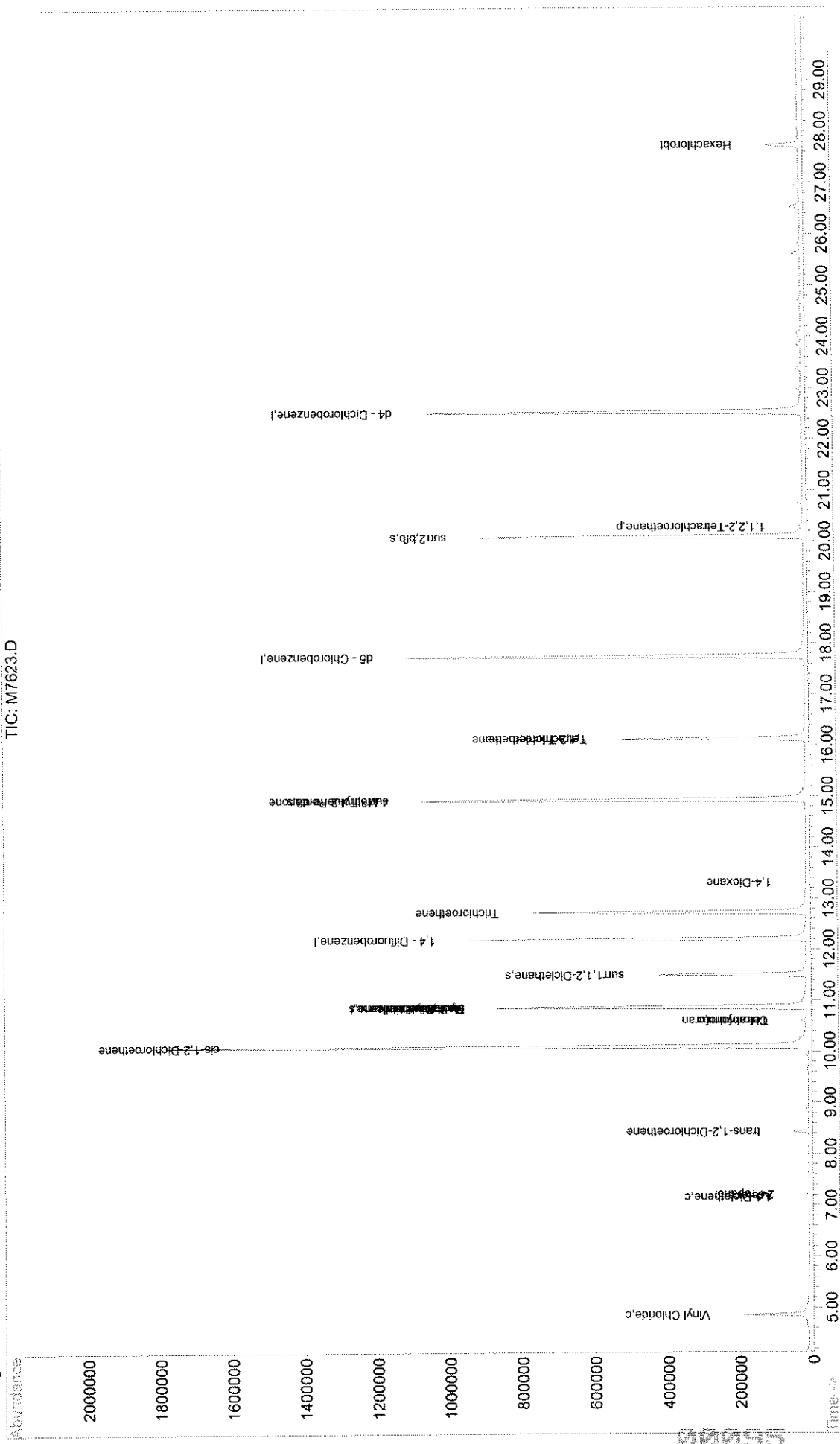
Target Compounds

						Qvalue
4) Vinyl Chloride	4.86	62	285416	43.02	ppb	97 A
14) 1,1-Dicethene	7.14	96	6029	1.05	ppb #	73
15) Acetone	7.17	43	2886	1.28	ppb #	68
<del>16) 2-Propanol</del>	<del>7.21</del>	<del>45</del>	<del>6564</del>	<del>17.91</del>	<del>ppb</del>	<del>92</del>
26) trans-1,2-Dichloroethene	8.44	96	24000	3.27	ppb	86
35) cis-1,2-Dichloroethene	10.10	96	1144423	140.74	ppb	97 D
<del>37) Methacrylonitrile</del>	<del>10.85</del>	<del>67</del>	<del>1932</del>	<del>0.70</del>	<del>ppb #</del>	<del>1</del>
39) Chloroform	10.59	83	13988	1.02	ppb #	76
40) Tetrahydrofuran	10.61	42	1733	0.74	ppb	99
<del>43) Cyclohexane</del>	<del>10.85</del>	<del>56</del>	<del>13948</del>	<del>0.96</del>	<del>ppb #</del>	<del>1</del>
53) Trichloroethene	12.73	95	412591	46.60	ppb	98 D
<del>57) 1,4-Dioxane</del>	<del>13.31</del>	<del>88</del>	<del>669</del>	<del>11.05</del>	<del>ppb #</del>	<del>8</del>
<del>64) 4-Methyl-2-Pentanone</del>	<del>14.93</del>	<del>43</del>	<del>8171</del>	<del>0.71</del>	<del>ppb #</del>	<del>1</del>
<del>68) 1,1,2-Trichloroethane</del>	<del>16.13</del>	<del>83</del>	<del>7095</del>	<del>0.93</del>	<del>ppb #</del>	<del>25</del>
71) Tetrachloroethene	16.13	166	274918	32.77	ppb	96 D
87) 1,1,2,2-Tetrachloroethane	20.29	83	6231	0.54	ppb #	99
106) Hexachlorobt	27.73	225	39775	13.91	ppb #	85

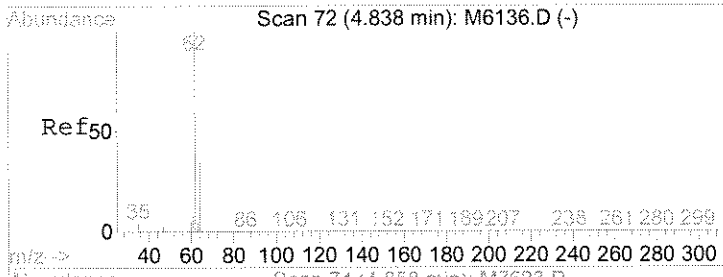
BB 4/14

Quantitation report

Data File : J:\ACQDATA\MSVOA7\DATA\040909\M7623.D Vial: 2  
Acq On : 9 Apr 2009 3:27 pm Operator: B.Bush  
Sample : R0901679-007 2.0 5.0 Inst : MS #7  
Misc : CRA, 8260, 4769, T4 Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Apr 9 15:57 2009 Quant Results File: WAT0305.RES  
Method : J:\ACQDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
Title : 8260B.WATERS  
Last Update : Fri Mar 13 15:29:46 2009  
Response via : Initial Calibration

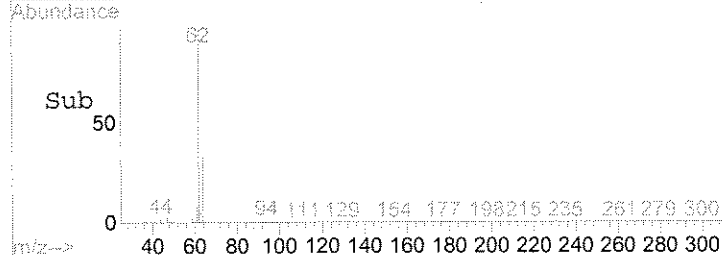
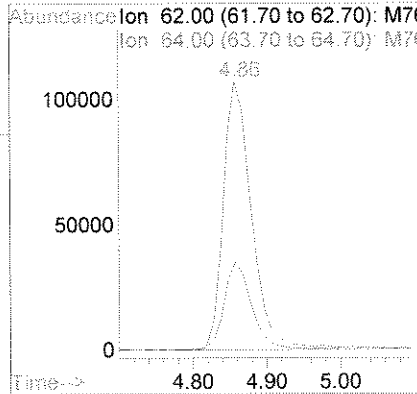
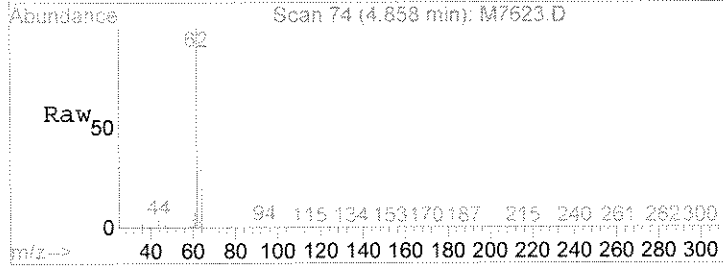






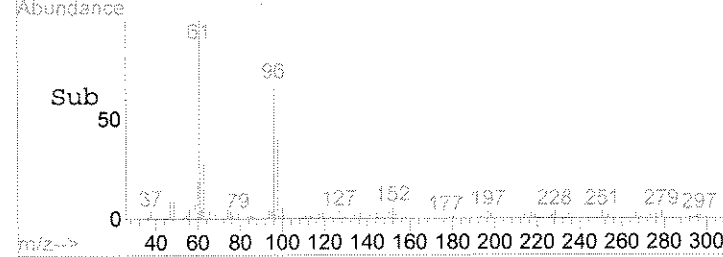
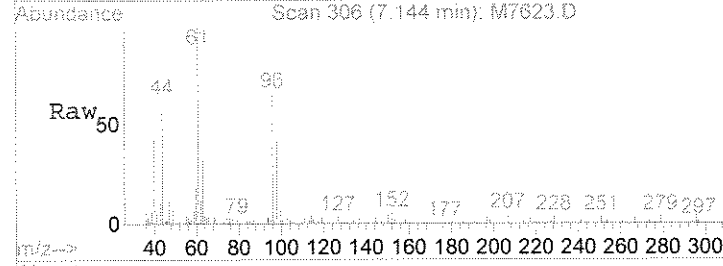
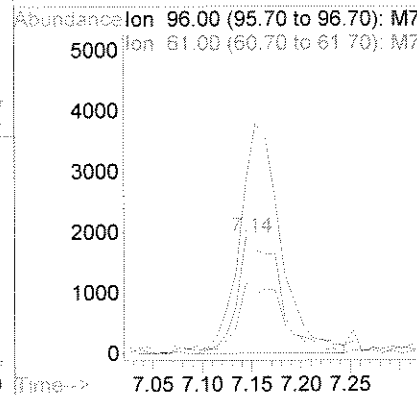
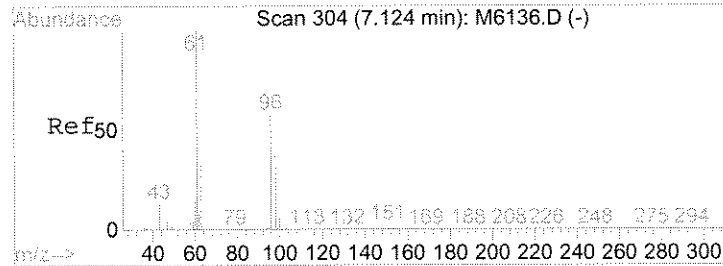
#4  
 Vinyl Chloride  
 Concen: 43.02 ppb  
 RT: 4.86 min Scan# 74  
 Delta R.T. 0.01 min  
 Lab File: M7623.D  
 Acq: 9 Apr 2009 3:27 pm

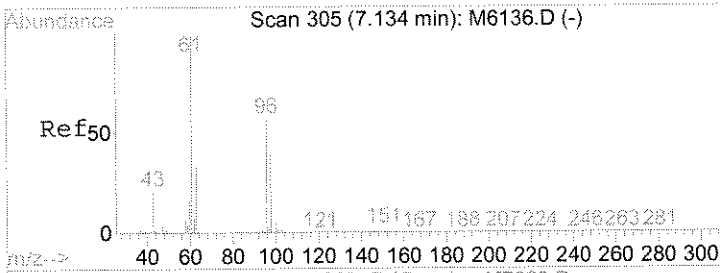
Tgt Ion	Resp	Lower	Upper
62	100		
64	32.9	25.0	37.4



#14  
 1,1-Dicylethene  
 Concen: 1.05 ppb  
 RT: 7.14 min Scan# 306  
 Delta R.T. 0.01 min  
 Lab File: M7623.D  
 Acq: 9 Apr 2009 3:27 pm

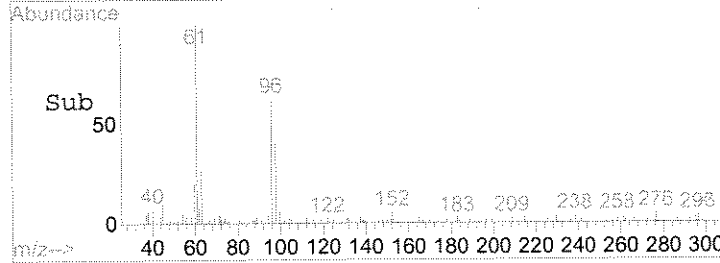
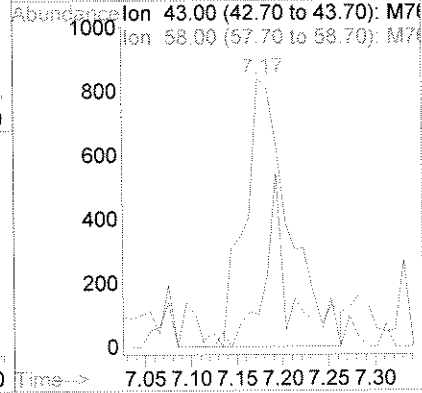
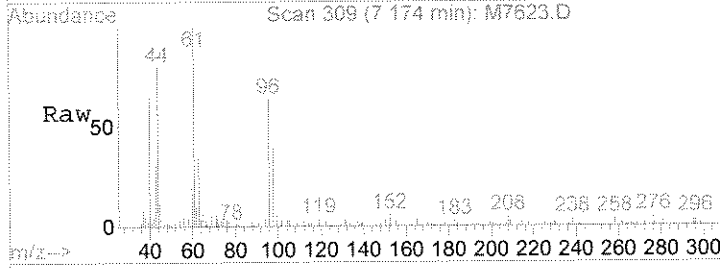
Tgt Ion	Resp	Lower	Upper
96	100		
61	147.0	158.9	238.3#
98	61.0	51.8	77.8





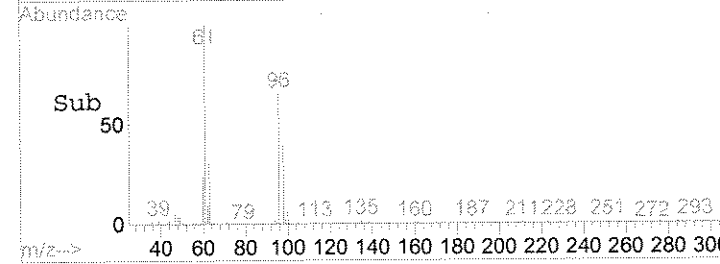
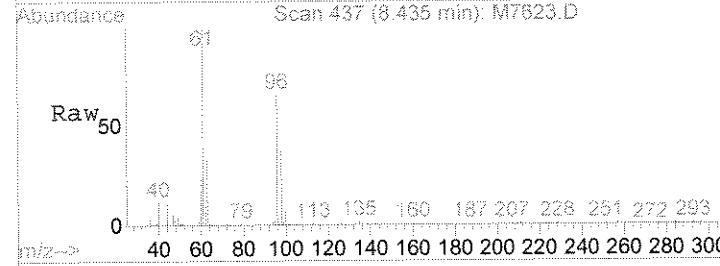
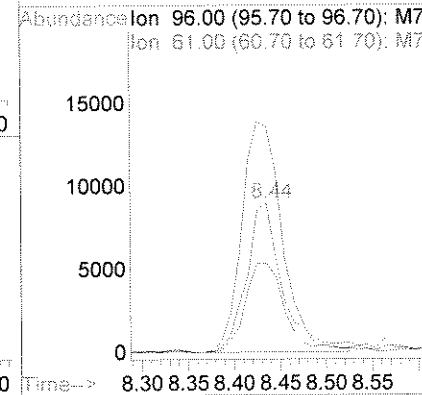
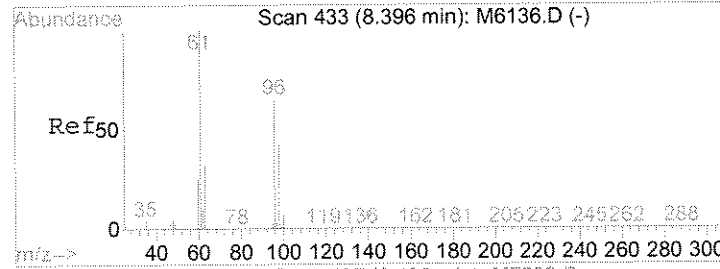
#15  
 Acetone  
 Concen: 1.28 ppb  
 RT: 7.17 min Scan# 309  
 Delta R.T. 0.01 min  
 Lab File: M7623.D  
 Acq: 9 Apr 2009 3:27 pm

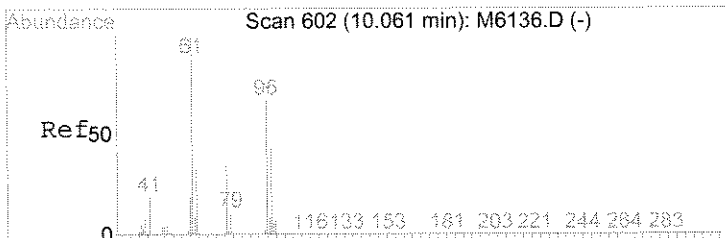
Tgt Ion	Resp	Ion Ratio	Lower	Upper
43	2886	100		
58		12.2	23.6	35.4#



#26  
 trans-1,2-Dichloroethene  
 Concen: 3.27 ppb  
 RT: 8.44 min Scan# 437  
 Delta R.T. 0.02 min  
 Lab File: M7623.D  
 Acq: 9 Apr 2009 3:27 pm

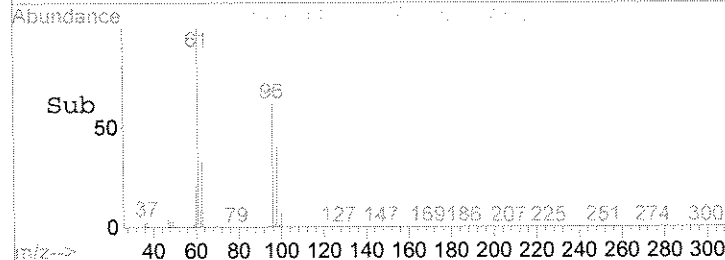
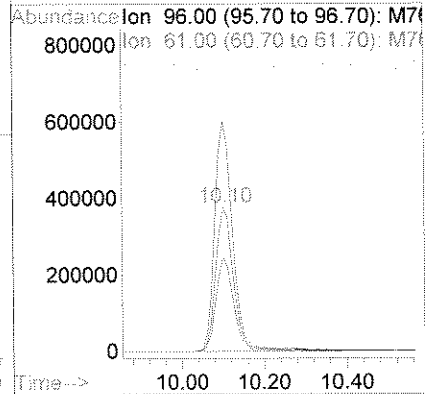
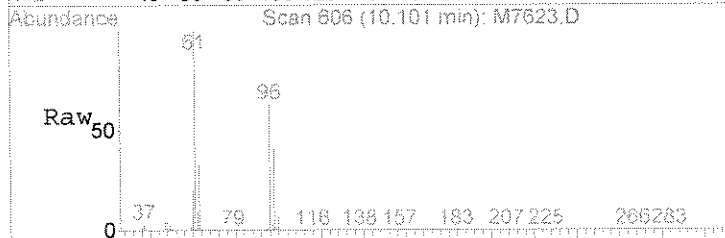
Tgt Ion	Resp	Ion Ratio	Lower	Upper
96	24000	100		
61		151.8	139.4	209.0
98		59.7	52.4	78.6





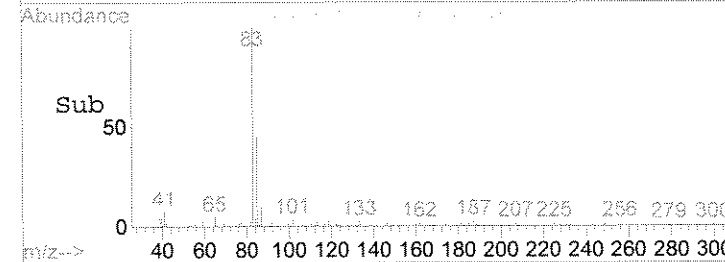
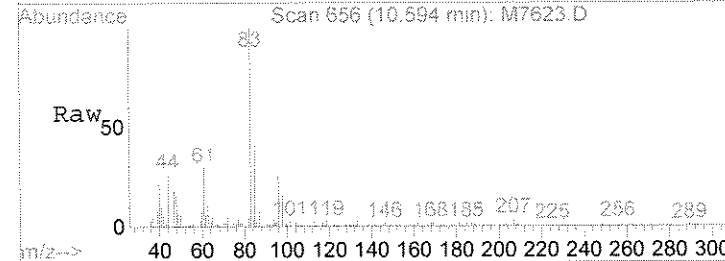
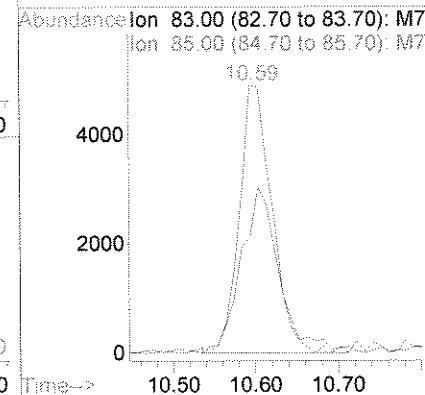
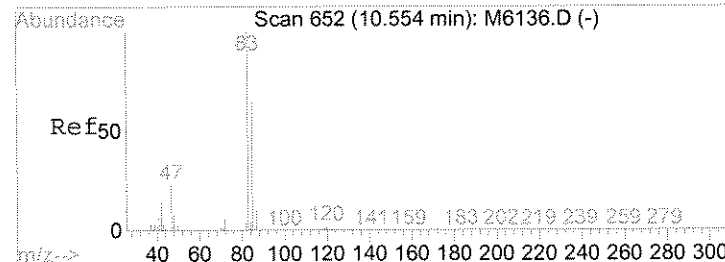
#35  
 cis-1,2-Dichloroethene  
 Concen: 140.74 ppb  
 RT: 10.10 min Scan# 606  
 Delta R.T. 0.02 min  
 Lab File: M7623.D  
 Acq: 9 Apr 2009 3:27 pm

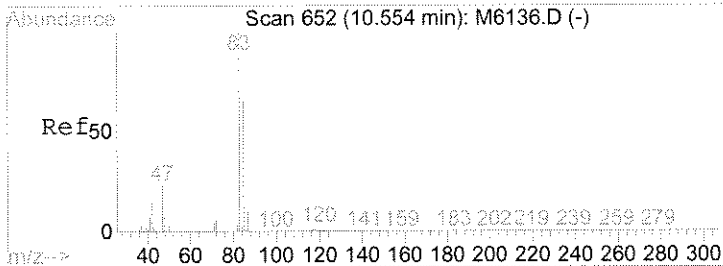
Tgt Ion	Resp	Lower	Upper
96	1144423		
96	100		
61	160.0	132.2	198.2
98	65.3	51.7	77.5



#39  
 Chloroform  
 Concen: 1.02 ppb  
 RT: 10.59 min Scan# 656  
 Delta R.T. 0.01 min  
 Lab File: M7623.D  
 Acq: 9 Apr 2009 3:27 pm

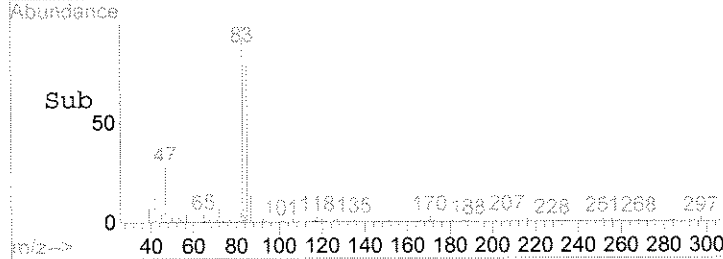
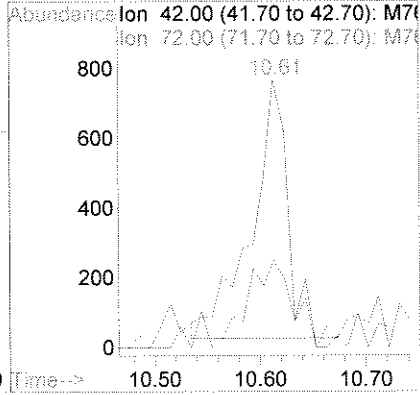
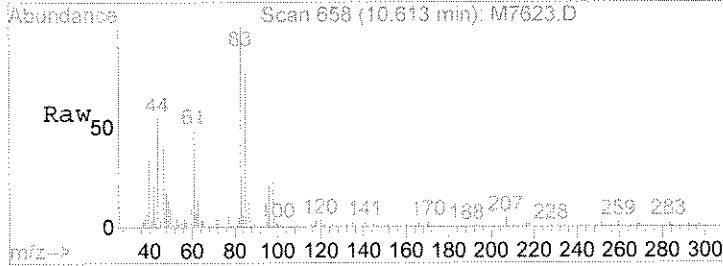
Tgt Ion	Resp	Lower	Upper
83	13988		
83	100		
85	43.4	49.7	74.5#





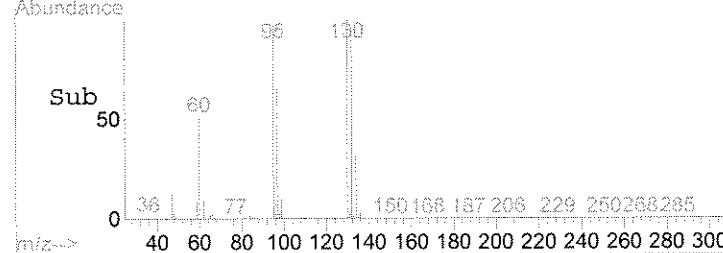
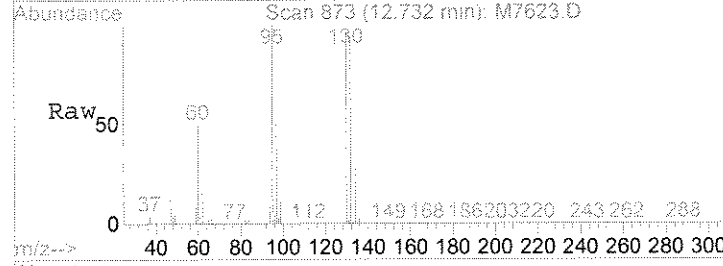
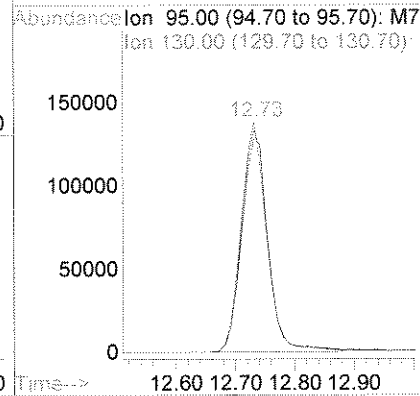
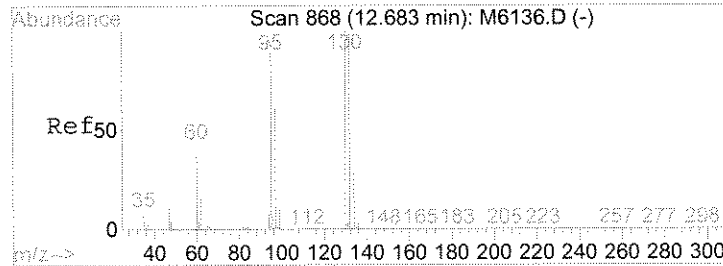
#40  
 Tetrahydrofuran  
 Concen: 0.74 ppb  
 RT: 10.61 min Scan# 658  
 Delta R.T. 0.04 min  
 Lab File: M7623.D  
 Acq: 9 Apr 2009 3:27 pm

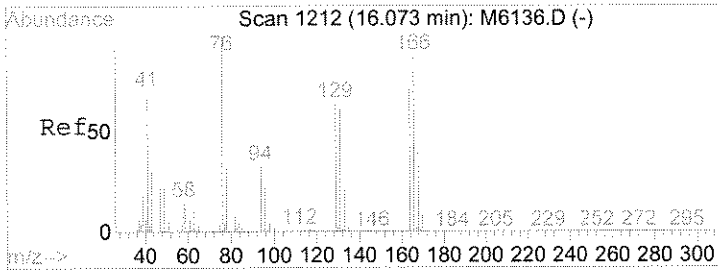
Tgt Ion:	42	Resp:	1733
Ion Ratio	Lower	Upper	
42	100		
72	32.6	22.3	41.5



#53  
 Trichloroethene  
 Concen: 46.60 ppb  
 RT: 12.73 min Scan# 873  
 Delta R.T. 0.02 min  
 Lab File: M7623.D  
 Acq: 9 Apr 2009 3:27 pm

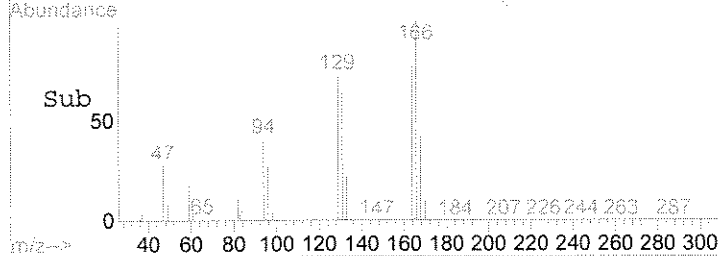
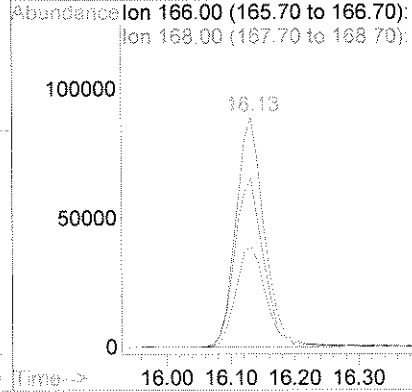
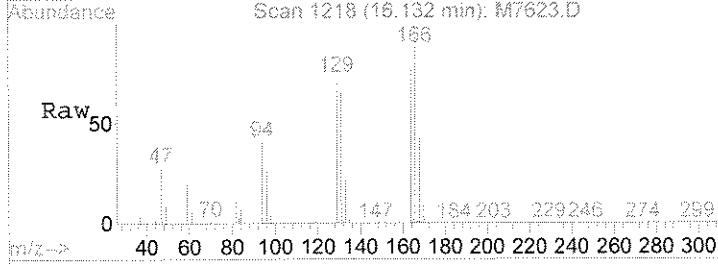
Tgt Ion:	95	Resp:	412591
Ion Ratio	Lower	Upper	
95	100		
130	96.1	77.4	116.2
132	92.4	76.2	114.4





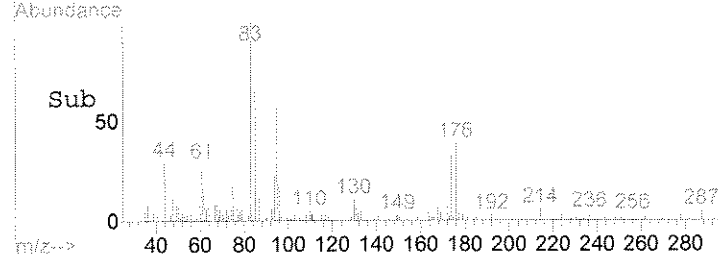
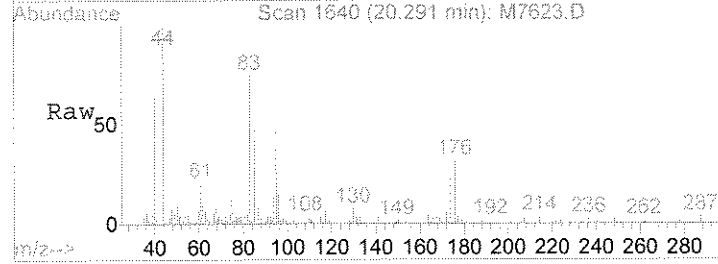
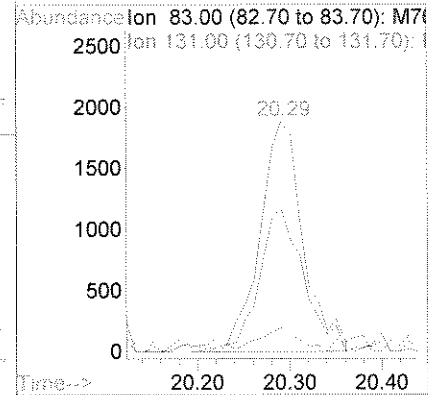
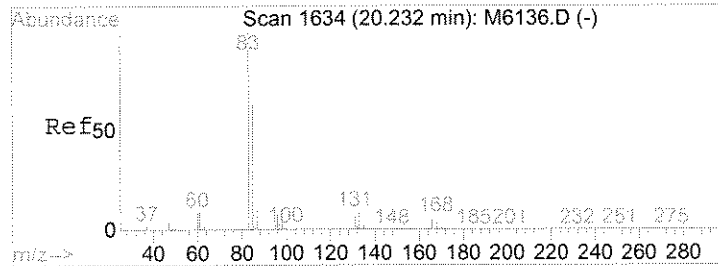
#71  
 Tetrachloroethene  
 Concen: 32.77 ppb  
 RT: 16.13 min Scan# 1218  
 Delta R.T. 0.02 min  
 Lab File: M7623.D  
 Acq: 9 Apr 2009 3:27 pm

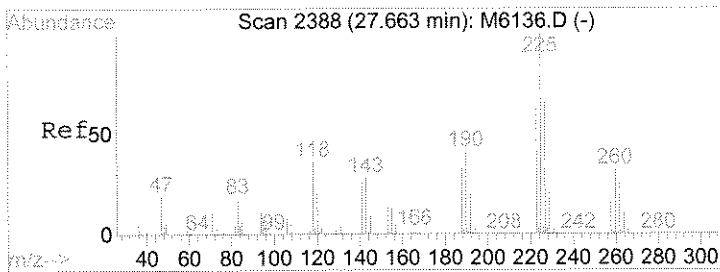
Tgt Ion	Resp	Lower	Upper
166	100		
168	43.1	39.4	59.0
129	73.3	57.7	86.5



#87  
 1,1,2,2-Tetrachloroethane  
 Concen: 0.54 ppb  
 RT: 20.29 min Scan# 1640  
 Delta R.T. 0.02 min  
 Lab File: M7623.D  
 Acq: 9 Apr 2009 3:27 pm

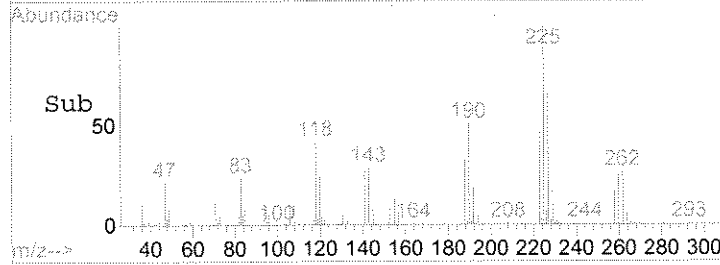
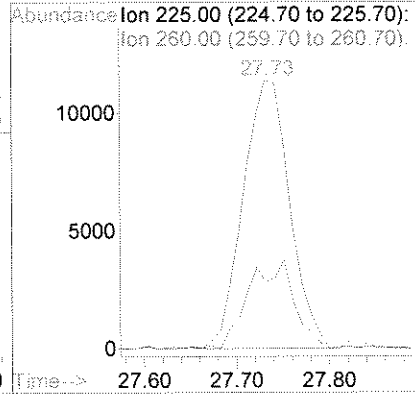
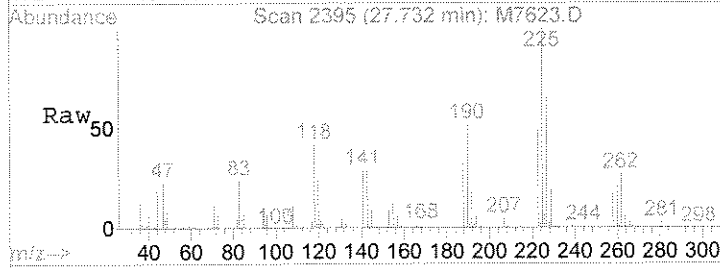
Tgt Ion	Resp	Lower	Upper
83	100		
131	10.4	6.0	9.0#
85	62.0	49.6	74.4





#106  
 Hexachlorobt  
 Concen: 13.91 ppb  
 RT: 27.73 min Scan# 2395  
 Delta R.T. 0.02 min  
 Lab File: M7623.D  
 Acq: 9 Apr 2009 3:27 pm

Tgt Ion: 225 Resp: 39775  
 Ion Ratio Lower Upper  
 225 100  
 260 24.6 26.6 40.0#



## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water  
**Sample Name:** WG-5513-032609-008  
**Lab Code:** R0901679-008

**Service Request:** R0901679  
**Date Collected:** 3/26/09 1315  
**Date Received:** 3/27/09

**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1-Trichloroethane (TCA)	0.71	J	5.0	0.45	1	NA	4/9/09 04:59		149259	
1,1,2,2-Tetrachloroethane	0.44	U	5.0	0.44	1	NA	4/9/09 04:59		149259	
1,1,2-Trichloroethane	0.45	U	5.0	0.45	1	NA	4/9/09 04:59		149259	
1,1-Dichloroethane (1,1-DCA)	0.64	U	5.0	0.64	1	NA	4/9/09 04:59		149259	
1,1-Dichloroethene (1,1-DCE)	0.59	U	5.0	0.59	1	NA	4/9/09 04:59		149259	
1,2-Dichloroethane	0.42	U	5.0	0.42	1	NA	4/9/09 04:59		149259	
1,2-Dichloroethene, Total	0.93	U	10	0.93	1	NA	4/9/09 04:59		149259	
1,2-Dichloropropane	0.36	U	5.0	0.36	1	NA	4/9/09 04:59		149259	
2-Butanone (MEK)	1.0	U	10	1.0	1	NA	4/9/09 04:59		149259	
2-Hexanone	0.78	U	10	0.78	1	NA	4/9/09 04:59		149259	
4-Methyl-2-pentanone	0.71	U	10	0.71	1	NA	4/9/09 04:59		149259	
Acetone	1.2	J	20	1.2	1	NA	4/9/09 04:59		149259	
Benzene	0.42	U	5.0	0.42	1	NA	4/9/09 04:59		149259	
Bromodichloromethane	0.84	U	5.0	0.84	1	NA	4/9/09 04:59		149259	
Bromoform	0.32	U	5.0	0.32	1	NA	4/9/09 04:59		149259	
Bromomethane	0.58	U	5.0	0.58	1	NA	4/9/09 04:59		149259	
Carbon Disulfide	0.52	U	10	0.52	1	NA	4/9/09 04:59		149259	
Carbon Tetrachloride	0.36	U	5.0	0.36	1	NA	4/9/09 04:59		149259	
Chlorobenzene	0.44	U	5.0	0.44	1	NA	4/9/09 04:59		149259	
Chloroethane	0.36	U	5.0	0.36	1	NA	4/9/09 04:59		149259	
Chloroform	0.22	U	5.0	0.22	1	NA	4/9/09 04:59		149259	
Chloromethane	0.96	U	5.0	0.96	1	NA	4/9/09 04:59		149259	
Dibromochloromethane	0.43	U	5.0	0.43	1	NA	4/9/09 04:59		149259	
Methylene Chloride	0.50	U	5.0	0.50	1	NA	4/9/09 04:59		149259	
Ethylbenzene	0.43	U	5.0	0.43	1	NA	4/9/09 04:59		149259	
Styrene	0.37	U	5.0	0.37	1	NA	4/9/09 04:59		149259	
Tetrachloroethene (PCE)	0.43	U	5.0	0.43	1	NA	4/9/09 04:59		149259	
Toluene	0.42	U	5.0	0.42	1	NA	4/9/09 04:59		149259	
Trichloroethene (TCE)	0.63	U	5.0	0.63	1	NA	4/9/09 04:59		149259	
Vinyl Chloride	0.52	U	5.0	0.52	1	NA	4/9/09 04:59		149259	
Xylenes, Total	1.5	U	5.0	1.5	1	NA	4/9/09 04:59		149259	
cis-1,3-Dichloropropene	0.38	U	5.0	0.38	1	NA	4/9/09 04:59		149259	
trans-1,3-Dichloropropene	0.25	U	5.0	0.25	1	NA	4/9/09 04:59		149259	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water  
**Sample Name:** WG-5513-032609-008  
**Lab Code:** R0901679-008

**Service Request:** R0901679  
**Date Collected:** 3/26/09 1315  
**Date Received:** 3/27/09

**Units:** µg/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
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Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
4-Bromofluorobenzene	108	80-123	4/9/09 04:59		
Dibromofluoromethane	105	89-115	4/9/09 04:59		
Toluene-d8	92	88-124	4/9/09 04:59		

**Comments:** \_\_\_\_\_



Data File : J:\ACQUDATA\MSVOA7\DATA\040809\M7607.D  
 Acq On : 9 Apr 2009 4:59 am  
 Sample : R0901679-008|1.0  
 Misc : CRA, 8260, 4769, T4  
 MS Integration Params: RTEINT.P  
 Quant Time: Apr 9 5:30 2009

Vial: 28  
 Operator: B.Bush  
 Inst : MS #7  
 Multiplr: 1.00

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.87	168	555869	50.00	ppb	0.03
42) 1,4 - Difluorobenzene	12.22	114	1051358	50.00	ppb	0.04
63) d5 - Chlorobenzene	17.76	117	1103128	50.00	ppb	0.03
86) d4 - Dichlorobenzene	22.55	152	527203	50.00	ppb	0.04

System Monitoring Compounds						
44) surr4, Dibrflmethane	10.89	113	417062	52.36	ppb	0.03
Spiked Amount	50.000	Range 89 - 115	Recovery	=	104.72%	
48) surr1, 1,2-Dicethane	11.51	65	406150	53.74	ppb	0.03
Spiked Amount	50.000	Range 80 - 120	Recovery	=	107.48%	
69) surr3, Toluene-d8	14.95	98	1185219	45.95	ppb	0.04
Spiked Amount	50.000	Range 88 - 124	Recovery	=	91.90%	
70) surr2, bfb	20.10	95	624695	53.93	ppb	0.04
Spiked Amount	50.000	Range 80 - 123	Recovery	=	107.86%	

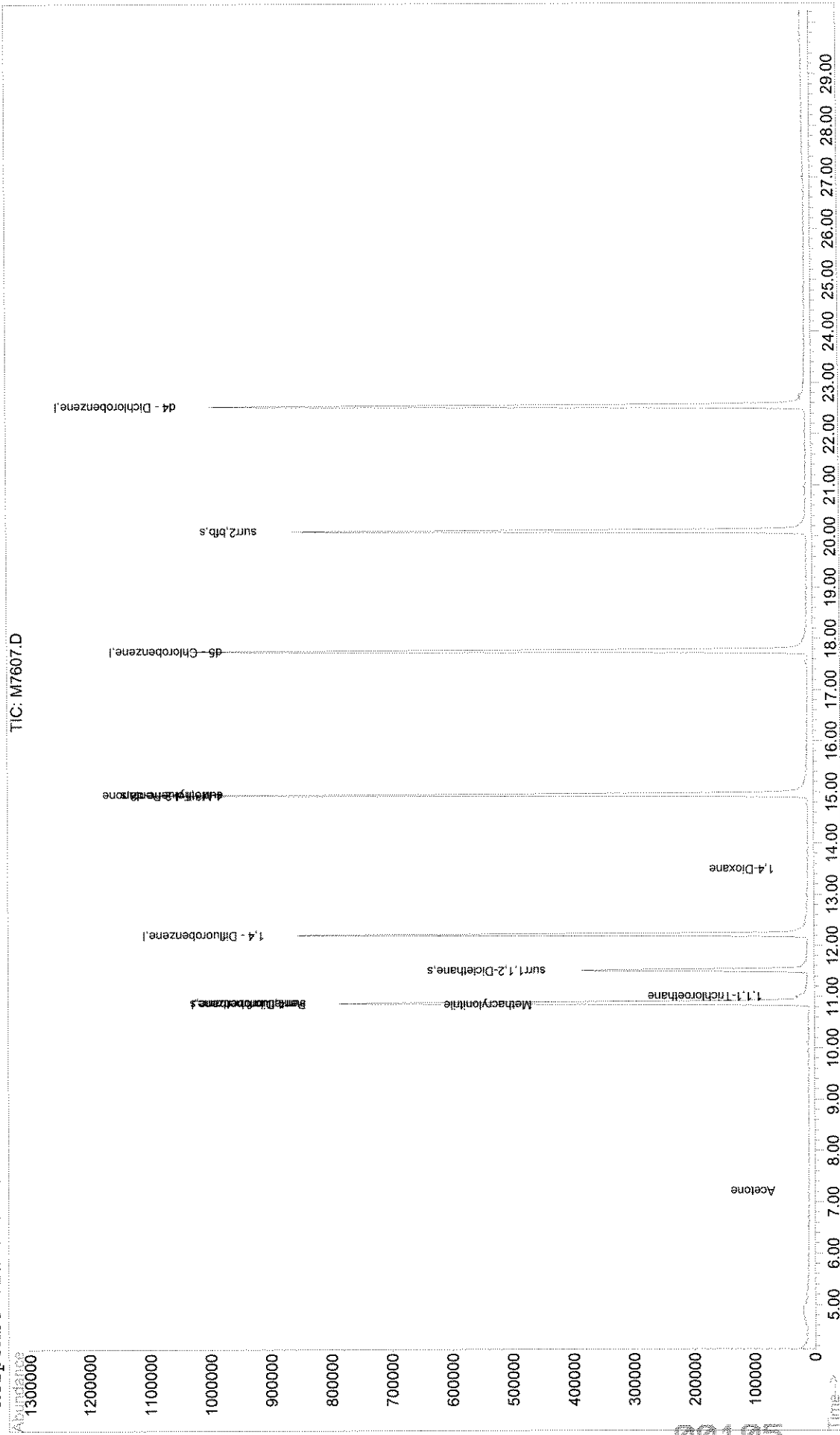
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
15) Acetone	7.20	43	2597	1.23	ppb	95
<del>37) Methacrylonitrile</del>	<del>10.84</del>	<del>67</del>	<del>1058</del>	<del>0.41</del>	<del>ppb</del>	<del># 1</del>
41) 1,1,1-Trichloroethane	11.02	97	6495	0.71	ppb	# 64
<del>57) 1,4-Dioxane</del>	<del>13.50</del>	<del>88</del>	<del>419</del>	<del>7.44</del>	<del>ppb</del>	<del># 96</del>
<del>64) 4-Methyl-2-Pentanone</del>	<del>14.94</del>	<del>43</del>	<del>8704</del>	<del>0.80</del>	<del>ppb</del>	<del># 1</del>

*B.Bush*

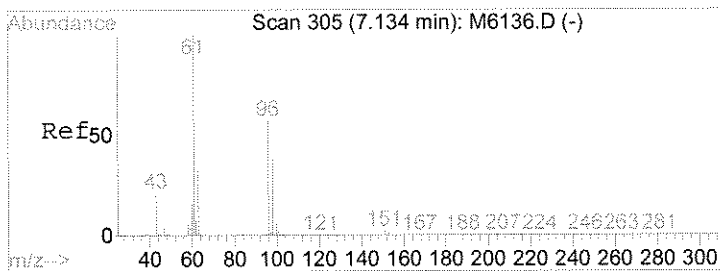
Quantitation Report

Data File : J:\ACQDATA\MSVOA7\DATA\040809\M7607.D Vial: 28  
 Acq On : 9 Apr 2009 4:59 am Operator: B.Bush  
 Sample : R0901679-008|1.0 Inst : MS #7  
 Misc : CRA, 8260, 4769, T4 Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Apr 9 5:30 2009 Quant Results File: WAT0305.RES

Method : J:\ACQDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Initial Calibration

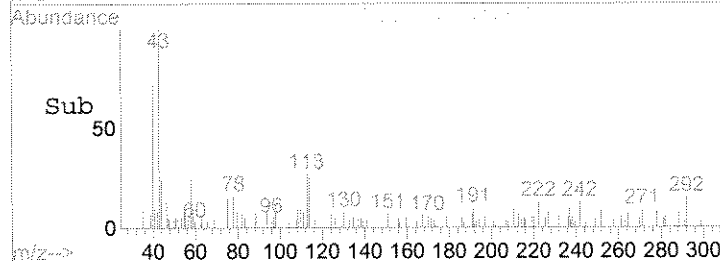
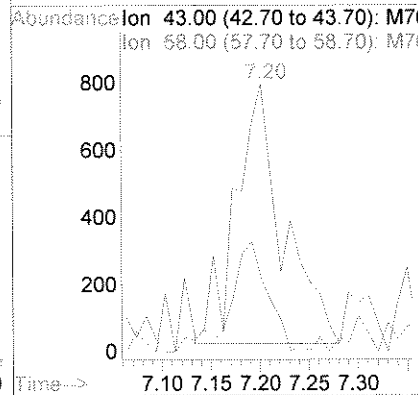
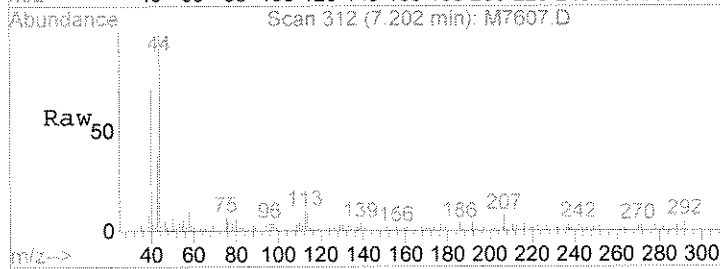


00105



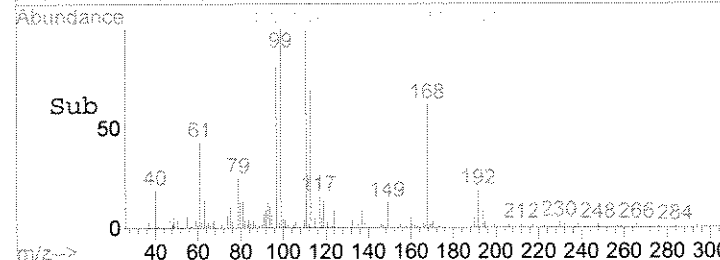
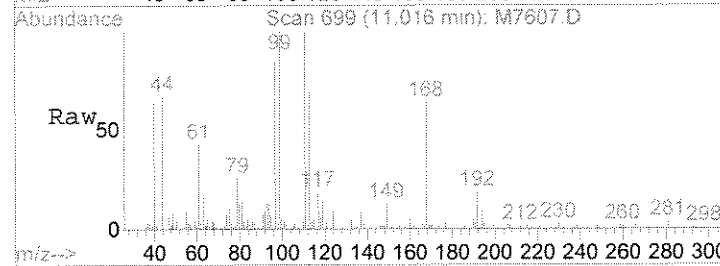
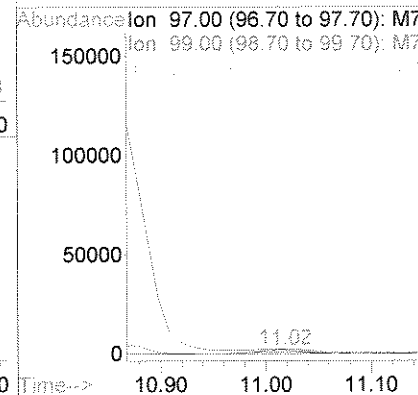
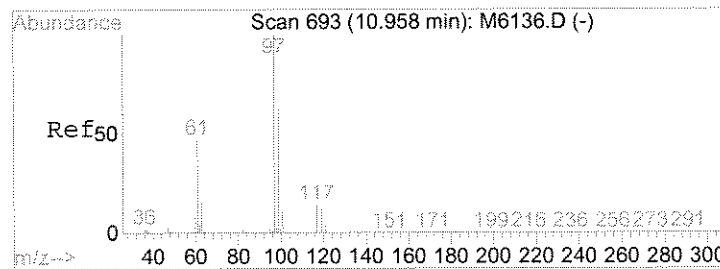
#15  
 Acetone  
 Concen: 1.23 ppb  
 RT: 7.20 min Scan# 312  
 Delta R.T. 0.04 min  
 Lab File: M7607.D  
 Acq: 9 Apr 2009 4:59 am

Tgt Ion	Resp	Lower	Upper
43	100		
58	26.7	23.6	35.4



#41  
 1,1,1-Trichloroethane  
 Concen: 0.71 ppb  
 RT: 11.02 min Scan# 699  
 Delta R.T. 0.04 min  
 Lab File: M7607.D  
 Acq: 9 Apr 2009 4:59 am

Tgt Ion	Resp	Lower	Upper
97	100		
99	118.4	54.2	81.4#
61	51.5	42.5	63.7



**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water  
**Sample Name:** TB-5513-032609  
**Lab Code:** R0901679-009

**Service Request:** R0901679  
**Date Collected:** NA  
**Date Received:** 3/27/09  
**Units:** µg/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1-Trichloroethane (TCA)	0.45	U	5.0	0.45	1	NA	4/9/09 02:24		149259	
1,1,2,2-Tetrachloroethane	0.44	U	5.0	0.44	1	NA	4/9/09 02:24		149259	
1,1,2-Trichloroethane	0.45	U	5.0	0.45	1	NA	4/9/09 02:24		149259	
1,1-Dichloroethane (1,1-DCA)	0.64	U	5.0	0.64	1	NA	4/9/09 02:24		149259	
1,1-Dichloroethene (1,1-DCE)	0.59	U	5.0	0.59	1	NA	4/9/09 02:24		149259	
1,2-Dichloroethane	0.42	U	5.0	0.42	1	NA	4/9/09 02:24		149259	
1,2-Dichloroethene, Total	0.93	U	10	0.93	1	NA	4/9/09 02:24		149259	
1,2-Dichloropropane	0.36	U	5.0	0.36	1	NA	4/9/09 02:24		149259	
2-Butanone (MEK)	1.0	U	10	1.0	1	NA	4/9/09 02:24		149259	
2-Hexanone	0.78	U	10	0.78	1	NA	4/9/09 02:24		149259	
4-Methyl-2-pentanone	0.71	U	10	0.71	1	NA	4/9/09 02:24		149259	
Acetone	1.2	U	20	1.2	1	NA	4/9/09 02:24		149259	
Benzene	0.42	U	5.0	0.42	1	NA	4/9/09 02:24		149259	
Bromodichloromethane	0.84	U	5.0	0.84	1	NA	4/9/09 02:24		149259	
Bromoform	0.32	U	5.0	0.32	1	NA	4/9/09 02:24		149259	
Bromomethane	0.58	U	5.0	0.58	1	NA	4/9/09 02:24		149259	
Carbon Disulfide	0.52	U	10	0.52	1	NA	4/9/09 02:24		149259	
Carbon Tetrachloride	0.36	U	5.0	0.36	1	NA	4/9/09 02:24		149259	
Chlorobenzene	0.44	U	5.0	0.44	1	NA	4/9/09 02:24		149259	
Chloroethane	0.36	U	5.0	0.36	1	NA	4/9/09 02:24		149259	
Chloroform	0.22	U	5.0	0.22	1	NA	4/9/09 02:24		149259	
Chloromethane	0.96	U	5.0	0.96	1	NA	4/9/09 02:24		149259	
Dibromochloromethane	0.43	U	5.0	0.43	1	NA	4/9/09 02:24		149259	
Methylene Chloride	0.50	U	5.0	0.50	1	NA	4/9/09 02:24		149259	
Ethylbenzene	0.43	U	5.0	0.43	1	NA	4/9/09 02:24		149259	
Styrene	0.37	U	5.0	0.37	1	NA	4/9/09 02:24		149259	
Tetrachloroethene (PCE)	0.43	U	5.0	0.43	1	NA	4/9/09 02:24		149259	
Toluene	0.42	U	5.0	0.42	1	NA	4/9/09 02:24		149259	
Trichloroethene (TCE)	0.63	U	5.0	0.63	1	NA	4/9/09 02:24		149259	
Vinyl Chloride	0.52	U	5.0	0.52	1	NA	4/9/09 02:24		149259	
Xylenes, Total	1.5	U	5.0	1.5	1	NA	4/9/09 02:24		149259	
cis-1,3-Dichloropropene	0.38	U	5.0	0.38	1	NA	4/9/09 02:24		149259	
trans-1,3-Dichloropropene	0.25	U	5.0	0.25	1	NA	4/9/09 02:24		149259	

**Comments:**

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water  
**Sample Name:** TB-5513-032609  
**Lab Code:** R0901679-009

**Service Request:** R0901679  
**Date Collected:** NA  
**Date Received:** 3/27/09  
**Units:** µg/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis		
								Lot	Lot	Note

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
4-Bromofluorobenzene	105	80-123	4/9/09 02:24		
Dibromofluoromethane	102	89-115	4/9/09 02:24		
Toluene-d8	98	88-124	4/9/09 02:24		

**Comments:** \_\_\_\_\_

Data File : J:\ACQUDATA\MSVOA7\DATA\040809\M7603.D  
 Acq On : 9 Apr 2009 2:24 am  
 Sample : R0901679-009|1.0  
 Misc : CRA, 8260, 4769, T4  
 MS Integration Params: RTEINT.P  
 Quant Time: Apr 9 2:55 2009

Vial: 24  
 Operator: B.Bush  
 Inst : MS #7  
 Multiplr: 1.00

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.87	168	627573	50.00	ppb	0.03
42) 1,4 - Difluorobenzene	12.22	114	1163695	50.00	ppb	0.04
63) d5 - Chlorobenzene	17.77	117	1181466	50.00	ppb	0.04
86) d4 - Dichlorobenzene	22.55	152	546345	50.00	ppb	0.04

System Monitoring Compounds

44) surr4, Dibrflmethane	10.90	113	447823	50.80	ppb	0.04
Spiked Amount	50.000	Range 89 - 115	Recovery	=	101.60%	
48) surr1, 1,2-Dicethane	11.52	65	439153	52.50	ppb	0.04
Spiked Amount	50.000	Range 80 - 120	Recovery	=	105.00%	
69) surr3, Toluene-d8	14.95	98	1352094	48.95	ppb	0.04
Spiked Amount	50.000	Range 88 - 124	Recovery	=	97.90%	
70) surr2, bfb	20.10	95	650353	52.42	ppb	0.04
Spiked Amount	50.000	Range 80 - 123	Recovery	=	104.84%	

Target Compounds

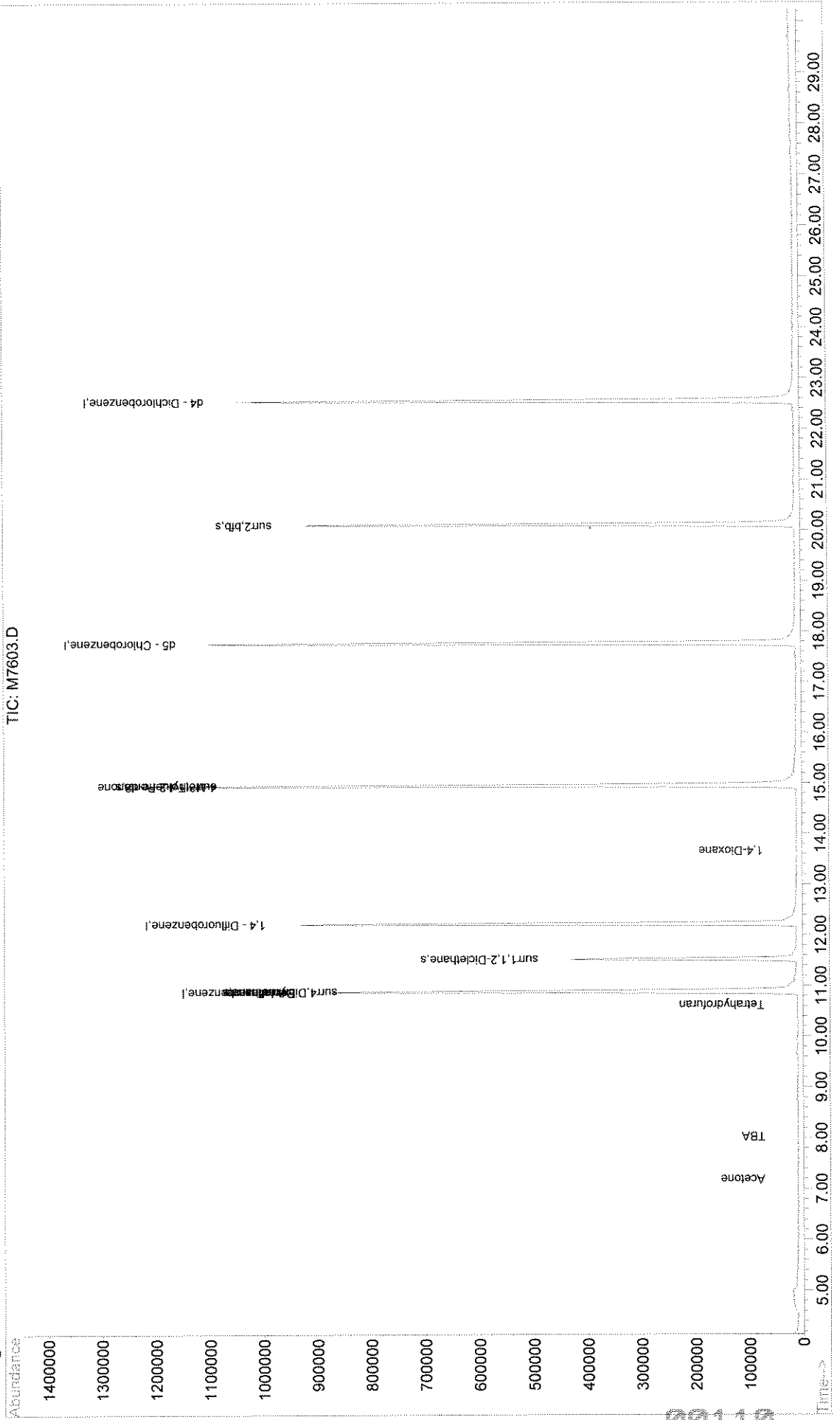
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
15) Acetone	7.19	43	2350	0.99	ppb	95
23) TBA	8.02	59	536	1.01	ppb #	32
40) Tetrahydrofuran	10.63	42	1725	0.69	ppb #	43
43) Cyclohexane	10.88	56	16305	1.09	ppb #	1
57) 1,4-Dioxane	13.66	88	346	5.55	ppb	95
64) 4-Methyl-2-Pentanone	14.95	43	8312	0.72	ppb #	1
106) Hexachlorobt	27.74	225	999	Below Cal	#	59

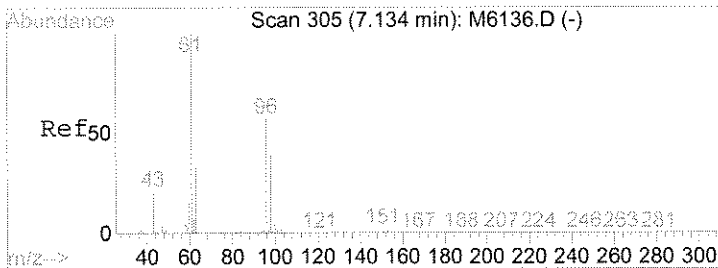
BB 4/14

Quantitation Report

Data File : J:\ACQDATA\MSVOA7\DATA\040809\M7603.D Vial: 24  
Acq On : 9 Apr 2009 2:24 am Operator: B.Bush  
Sample : R0901679-009|1.0 Inst : MS #7  
Misc : CRA, 8260, 4769, T4 Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Apr 9 2:55 2009 Quant Results File: WAT0305.RES

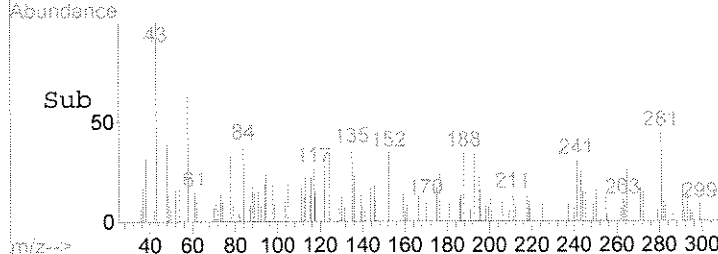
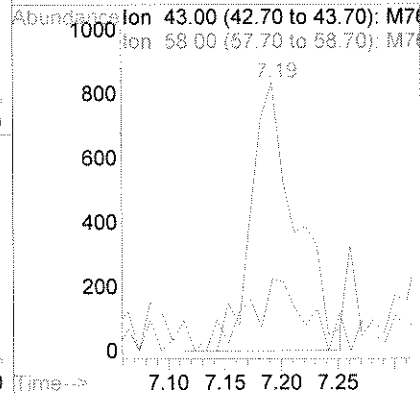
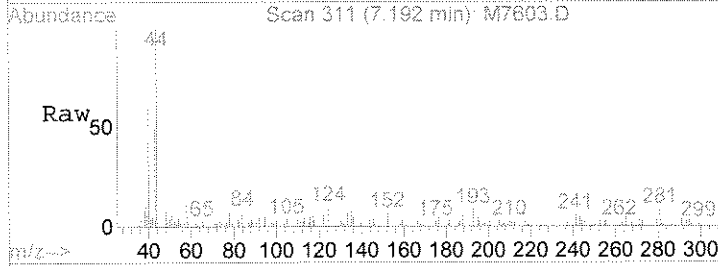
Method : J:\ACQDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
Title : 8260B.WATERS  
Last Update : Fri Mar 13 15:29:46 2009  
Response via : Initial Calibration





#15  
 Acetone  
 Concen: 0.99 ppb  
 RT: 7.19 min Scan# 311  
 Delta R.T. 0.03 min  
 Lab File: M7603.D  
 Acq: 9 Apr 2009 2:24 am

Tgt Ion	Resp	Lower	Upper
43	100		
58	26.7	23.6	35.4





**VOLATILE ORGANICS**  
**STANDARDS DATA**

## Initial Calibration - Summary Report

Calibration ID: CAL881  
Method ID: MJ127

Instrument ID: MS #7  
Column Name: MS

WAT0305

Parameter Name	Type	Curve Fit	Min RF	Mean RF	Max %RSD	%RSD	Min COD	COD	MRL Check	Conc 1/2 Low pt.
Dichlorodifluoromethane	TRG	AverageRF		0.556	15	13.0			OK	
Chloromethane	TRG	AverageRF	0.100	0.735	15	12.3			OK	
Vinyl Chloride	TRG	AverageRF		0.559	15	8.7			OK	
Bromomethane	TRG	AverageRF		0.508	15	7.4			OK	
Chloroethane	TRG	AverageRF		0.467	15	9.8			OK	
Dichlorofluoromethane (CFC 21)	TRG	AverageRF		1.284	15	10.8			OK	
Trichlorofluoromethane	TRG	AverageRF		0.725	15	5.0			OK	
Diethyl Ether	TRG	AverageRF		0.497	15	6.7			OK	
1,2-Dichloro-1,1,2-trifluoroethane (CF	TRG	AverageRF		0.850	15	11.3			OK	
2,2-Dichloro-1,1,1-trifluoroethane (CF	TRG	AverageRF		0.850	15	9.3			OK	
Acrolein	TRG	AverageRF		0.066	15	14.3			OK	
Trichlorotrifluoroethane	TRG	AverageRF		0.500	15	7.5			OK	
1,1-Dichloroethene	MS	AverageRF		0.485	15	3.8			OK	
Acetone	TRG	AverageRF		0.189	15	14.5			OK	BB
2-Propanol	TRG	AverageRF		0.031	15	4.9			OK	3/17/09
Iodomethane (Methyl Iodide)	TRG	AverageRF		1.089	15	8.7			OK	
Carbon Disulfide	TRG	AverageRF		2.012	15	8.2			OK	
Acetonitrile	TRG	AverageRF		0.067	15	9.4			OK	
Allyl Chloride	TRG	AverageRF		1.190	15	8.3			OK	
Methyl Acetate	TRG	AverageRF		0.623	15	9.0			OK	
Methylene Chloride	TRG	AverageRF		0.658	15	5.5			OK	
tert-Butyl Alcohol	TRG	AverageRF		0.042	15	10.9			OK	
Acrylonitrile	TRG	AverageRF		0.205	15	9.0			OK	
Methyl tert-Butyl Ether	TRG	AverageRF		1.528	15	6.4			OK	
trans-1,2-Dichloroethene	TRG	AverageRF		0.619	15	10.2			OK	
1,1-Dichloroethane	TRG	AverageRF	0.100	1.313	15	6.1			OK	
Vinyl Acetate	TRG	Linear		0.070			.99	0.9948	OK	-0.37*
Diisopropyl Ether	TRG	AverageRF		0.008	15				*	
2-Chloro-1,3-butadiene	TRG	AverageRF		0.865	15	9.3			OK	
<del>ETBE</del>	<del>TRG</del>	<del>AverageRF</del>		<del>0.023</del>	<del>15</del>	<del>10.0</del>			<del>*</del>	<del>(P2)</del>
2,2-Dichloropropane	TRG	AverageRF		0.829	15	7.1			OK	
2-Butanone (MEK)	TRG	AverageRF		0.358	15	12.9			OK	
cis-1,2-Dichloroethene	TRG	AverageRF		0.686	15	6.5			OK	
Propionitrile	TRG	AverageRF		0.075	15	6.4			OK	
Methacrylonitrile	TRG	AverageRF		0.234	15	14.0			OK	
Bromochloromethane	TRG	AverageRF		0.363	15	6.7			OK	
Chloroform	TRG	AverageRF		1.158	15	4.1			OK	
Tetrahydrofuran	TRG	AverageRF		0.198	15	9.6			OK	
1,1,1-Trichloroethane (TCA)	TRG	AverageRF		0.826	15	5.8			OK	
Cyclohexane	TRG	AverageRF		0.640	15	9.3			OK	
Dibromofluoromethane	SURR	AverageRF		0.379	15	2.2			NA	
Carbon Tetrachloride	TRG	AverageRF		0.397	15	8.9			OK	
1,1-Dichloropropene	TRG	AverageRF		0.502	15	8.3			OK	
Isobutyl Alcohol	TRG	AverageRF		0.015	15	7.2			OK	
1,2-Dichloroethane-d4	SURR	AverageRF		0.359	15	3.7			NA	
Benzene	MS	AverageRF		1.447	15	8.3			OK	
1,2-Dichloroethane (EDC)	TRG	AverageRF		0.479	15	5.8			OK	
<del>FAME</del>	<del>TRG</del>	<del>AverageRF</del>		<del>0.033</del>	<del>15</del>	<del>58.6</del>			<del>*</del>	<del>(P2)</del>
n-Heptane	TRG	Linear		0.409			.99	0.9986	OK	-0.62*
Trichloroethene (TCE)	MS	AverageRF		0.391	15	13.1			OK	
Methylcyclohexane	TRG	AverageRF		0.479	15	8.9			OK	

## Initial Calibration - Summary Report

**Calibration ID:** CAL881  
**Method ID:** MJ127

**Instrument ID:** MS #7  
**Column Name:** MS

Parameter Name	Type	Curve Fit	Min RF	Mean RF	Max %RSD	%RSD	Min COD	COD	MRL Check	Conc ½ Low pt.
1,2-Dichloropropane	TRG	AverageRF		0.498	15	4.3			OK	
Methyl Methacrylate	TRG	AverageRF		0.090	15	7.3			OK	
1,4-Dioxane	TRG	AverageRF		0.003	15	5.0			OK	
Dibromomethane	TRG	AverageRF		0.275	15	7.5			OK	
Bromodichloromethane	TRG	AverageRF		0.539	15	3.3			OK	
2-Nitropropane	TRG	AverageRF		0.096	15	9.2			OK	
2-Chloroethyl Vinyl Ether	TRG	AverageRF		0.230	15	13.3			OK	
cis-1,3-Dichloropropene	TRG	AverageRF		0.718	15	3.8			OK	
4-Methyl-2-pentanone (MIBK)	TRG	AverageRF		0.491	15	3.8			OK	
Toluene	MS	AverageRF		1.519	15	8.3			OK	
trans-1,3-Dichloropropene	TRG	AverageRF		0.652	15	2.6			OK	
Ethyl Methacrylate	TRG	AverageRF		0.570	15	4.5			OK	
1,1,2-Trichloroethane	TRG	AverageRF		0.328	15	3.8			OK	
Toluene-d8	SURR	AverageRF		1.169	15	3.4			NA	
4-Bromofluorobenzene	SURR	AverageRF		0.525	15	2.7			NA	
Tetrachloroethene (PCE)	TRG	AverageRF		0.359	15	8.9			OK	
2-Hexanone	TRG	AverageRF		0.349	15	4.8			OK	
1,3-Dichloropropane	TRG	AverageRF		0.679	15	2.9			OK	
n-Butyl Acetate	TRG	AverageRF		0.882	15	3.6			OK	
Dibromochloromethane	TRG	AverageRF		0.450	15	5.1			OK	
1,2-Dibromoethane (EDB)	TRG	AverageRF		0.409	15	3.7			OK	
Chlorobenzene	MS	AverageRF	0.300	1.059	15	7.1			OK	
1,1,1,2-Tetrachloroethane	TRG	AverageRF		0.400	15	8.5			OK	
Ethylbenzene	TRG	AverageRF		1.744	15	9.4			OK	
m,p-Xylenes	TRG	AverageRF		0.635	15	9.6			OK	
o-Xylene	TRG	AverageRF		0.641	15	7.4			OK	
Styrene	TRG	AverageRF		1.051	15	4.8			OK	
Bromoform	TRG	AverageRF	0.100	0.273	15	8.9			OK	
Isopropylbenzene	TRG	AverageRF		1.498	15	10.1			OK	
Cyclohexanone	TRG	AverageRF		0.065	15	6.7			OK	
1,1,2,2-Tetrachloroethane	TRG	AverageRF	0.300	1.050	15	6.7			OK	
trans-1,4-Dichloro-2-butene	TRG	AverageRF		0.228	15	13.2			OK	
1,2,3-Trichloropropane	TRG	AverageRF		0.263	15	8.1			OK	
n-Propylbenzene	TRG	AverageRF		4.044	15	11.2			OK	
Bromobenzene	TRG	AverageRF		0.962	15	5.8			OK	
1,3,5-Trimethylbenzene	TRG	AverageRF		2.493	15	10.2			OK	
2-Chlorotoluene	TRG	AverageRF		2.564	15	10.0			OK	
4-Chlorotoluene	TRG	AverageRF		2.665	15	10.0			OK	
tert-Butylbenzene	TRG	AverageRF		2.022	15	11.1			OK	
1,2,4-Trimethylbenzene	TRG	AverageRF		2.515	15	9.3			OK	
sec-Butylbenzene	TRG	AverageRF		2.889	15	12.7			OK	
4-Isopropyltoluene	TRG	AverageRF		2.380	15	12.6			OK	
1,3-Dichlorobenzene	TRG	AverageRF		1.630	15	8.7			OK	
1,4-Dichlorobenzene	TRG	AverageRF		1.689	15	9.8			OK	
n-Butylbenzene	TRG	AverageRF		2.308	15	12.3			OK	
1,2-Dichlorobenzene	TRG	AverageRF		1.579	15	8.2			OK	
1,2-Dibromo-3-chloropropane (DBCP)	TRG	AverageRF		0.174	15	13.1			OK	
1,2,4-Trichlorobenzene	TRG	AverageRF		0.761	15	9.6			OK	
Hexachlorobutadiene	TRG	Linear		0.291			.99	0.9974	OK	-1.49*
Naphthalene	TRG	AverageRF		2.017	15	7.5			OK	
1,2,3-Trichlorobenzene	TRG	AverageRF		0.684	15	12.4			OK	

## Initial Calibration - Summary Report

Calibration ID: CAL881  
Method ID: MJ127

Instrument ID: MS #7  
Column Name: MS

### SPCC and CCC Evaluations

Parameter Name	Type	SPCC Criteria	SPCC Result	CCC Criteria	CCC Result
Chloromethane	SPCC	0.100	0.735		
Vinyl Chloride	CCC			30	8.7
1,1-Dichloroethene	CCC			30	3.8
1,1-Dichloroethane	SPCC	0.100	1.313		
Chloroform	CCC			30	4.1
1,2-Dichloropropane	CCC			30	4.3
Toluene	CCC			30	8.3
Chlorobenzene	SPCC	0.300	1.059		
Ethylbenzene	CCC			30	9.4
Bromoform	SPCC	0.100	0.273		
1,1,2,2-Tetrachloroethane	SPCC	0.300	1.050		

## Initial Calibration - Detailed Report

<b>Calibration ID:</b>	CAL881	<b>Instrument ID:</b>	MS #7
<b>Method ID:</b>	MJ127	<b>Column Name:</b>	MS
	<i>WAT0305</i>	<b>Calibration Fit:</b>	AverageRF

FileID	File Location	Acquisition Date	Quantitation Date	Last Updated
7286	J:\ACQUDATA\MSVOA7\DATA\030509\M6754.D	03/05/2009 16:58	03/06/2009 11:44	03/12/2009 13:08
7287	J:\ACQUDATA\MSVOA7\DATA\030509\M6755.D	03/05/2009 17:35	03/06/2009 11:42	03/12/2009 13:08
7288	J:\ACQUDATA\MSVOA7\DATA\030509\M6756.D	03/05/2009 18:12	03/06/2009 11:46	03/12/2009 13:08
7289	J:\ACQUDATA\MSVOA7\DATA\030509\M6757.D	03/05/2009 18:49	03/06/2009 11:49	03/12/2009 13:08
7290	J:\ACQUDATA\MSVOA7\DATA\030509\M6758.D	03/05/2009 19:26	03/06/2009 11:29	03/12/2009 13:08
7291	J:\ACQUDATA\MSVOA7\DATA\030509\M6759.D	03/05/2009 20:03	03/06/2009 11:29	03/12/2009 13:08
7292	J:\ACQUDATA\MSVOA7\DATA\030509\M6760.D	03/05/2009 20:40	03/06/2009 11:29	03/12/2009 13:08
7293	J:\ACQUDATA\MSVOA7\DATA\030509\M6761.D	03/05/2009 21:16	03/06/2009 11:30	03/12/2009 13:08

Parameter Name	FileID									Mean RF	%RSD
	7286	7287	7288	7289	7290	7291	7292	7293			
Dichlorodifluoromethane	0.467	0.569	0.533	0.441	0.648	0.577	0.624	0.593	0.556	13.0	
Chloromethane	0.707	0.911	0.621	0.649	0.781	0.740	0.775	0.699	0.735	12.3	
Vinyl Chloride	0.601	0.598	0.491	0.488	0.605	0.543	0.595	0.553	0.559	8.7	
Bromomethane	0.503	0.548	0.519	0.422	0.528	0.517	0.526	0.504	0.508	7.4	
Chloroethane	0.460	0.575	0.474	0.432	0.458	0.446	0.454	0.436	0.467	9.8	
Dichlorofluoromethane (CFC 21)	1.245	1.574	1.331	1.334	1.103	1.241	1.191	1.251	1.284	10.8	
Trichlorofluoromethane	0.758	0.697	0.778	0.720	0.763	0.689	0.687	0.706	0.725	5.0	
Diethyl Ether	0.547	0.506	0.494	0.464	0.516	0.492	0.520	0.441	0.497	6.7	
1,2-Dichloro-1,1,2-trifluoroethane (	0.884	1.008	0.950	0.875	0.728	0.792	0.763	0.800	0.850	11.3	
2,2-Dichloro-1,1,1-trifluoroethane (	0.926	0.941	0.877	0.926	0.748	0.782	0.764	0.835	0.850	9.3	
Acrolein	0.053	0.059	0.057	0.063	0.072	0.075	0.079	0.072	0.066	14.3	
Trichlorotrifluoroethane	0.463	0.532	0.510	0.552	0.523	0.446	0.467	0.508	0.500	7.5	
1,1-Dichloroethene	0.490	0.516	0.504	0.475	0.487	0.465	0.476	0.464	0.485	3.8	
Acetone		0.244	0.192	0.199	0.180	0.177	0.174	0.159	0.189	14.5	
2-Propanol	0.031	0.028	0.031	0.030	0.031	0.032	0.033	0.030	0.031	4.9	
Iodomethane (Methyl Iodide)	1.113	1.298	1.039	1.066	0.974	1.101	1.078	1.039	1.089	8.7	
Carbon Disulfide	2.174	2.207	2.094	2.011	1.684	2.035	1.918	1.973	2.012	8.2	
Acetonitrile	0.065	0.057	0.066	0.067	0.071	0.072	0.077	0.063	0.067	9.4	
Allyl Chloride	1.209	1.349	1.015	1.102	1.236	1.194	1.233	1.179	1.190	8.3	
Methyl Acetate	0.554	0.589	0.548	0.643	0.663	0.674	0.701	0.615	0.623	9.0	
Methylene Chloride	0.684	0.721	0.630	0.629	0.671	0.647	0.672	0.608	0.658	5.5	
tert-Butyl Alcohol	0.033	0.042	0.041	0.042	0.047	0.046	0.047	0.040	0.042	10.9	
Acrylonitrile	0.185	0.189	0.188	0.201	0.228	0.217	0.231	0.198	0.205	9.0	
Methyl tert-Butyl Ether	1.520	1.608	1.439	1.481	1.619	1.583	1.620	1.354	1.528	6.4	
trans-1,2-Dichloroethene	0.671	0.748	0.578	0.579	0.611	0.594	0.619	0.552	0.619	10.2	
1,1-Dichloroethane	1.301	1.484	1.323	1.240	1.310	1.278	1.344	1.224	1.313	6.1	
Vinyl Acetate		0.094	0.078	0.059	0.060	0.065	0.073	0.064	0.070	17.3#	
Diisopropyl Ether								0.008	0.008		
2-Chloro-1,3-butadiene	0.865	1.017	0.857	0.841	0.719	0.876	0.878	0.869	0.865	9.3	
ETBE		<i>not spiked (R)</i>				0.025	0.023	0.021	0.023	10.0	
2,2-Dichloropropane	0.902	0.920	0.810	0.804	0.868	0.761	0.784	0.787	0.829	7.1	
2-Butanone (MEK)		0.457	0.335	0.328	0.347	0.367	0.349	0.322	0.358	12.9	
cis-1,2-Dichloroethene	0.652	0.781	0.664	0.676	0.711	0.681	0.681	0.638	0.686	6.5	
Propionitrile	0.069	0.081	0.069	0.076	0.077	0.081	0.077	0.072	0.075	6.4	
Methacrylonitrile	0.294	0.203	0.186	0.222	0.234	0.248	0.251	0.233	0.234	14.0	
Bromochloromethane	0.392	0.366	0.338	0.325	0.373	0.380	0.384	0.343	0.363	6.7	
Chloroform	1.173	1.194	1.140	1.135	1.194	1.172	1.198	1.055	1.158	4.1	
Tetrahydrofuran	0.232	0.209	0.201	0.184	0.191	0.199	0.201	0.166	0.198	9.6	

## Initial Calibration - Detailed Report

Calibration ID: CAL881  
Method ID: MJ127

Instrument ID: MS #7  
Column Name: MS  
Calibration Fit: AverageRF

Parameter Name	FileID								Mean RF	%RSD
	7286	7287	7288	7289	7290	7291	7292	7293		
1,1,1-Trichloroethane (TCA)	0.745	0.900	0.831	0.834	0.838	0.776	0.821	0.864	0.826	5.8
Cyclohexane	0.705	0.675	0.665	0.654	0.539	0.575	0.611	0.697	0.640	9.3
Dibromofluoromethane			0.385	0.392	0.376	0.369	0.377	0.374	0.379	2.2
Carbon Tetrachloride	0.369	0.461	0.403	0.401	0.398	0.342	0.383	0.419	0.397	8.9
1,1-Dichloropropene	0.438	0.526	0.541	0.536	0.497	0.446	0.491	0.540	0.502	8.3
Isobutyl Alcohol	0.013	0.014	0.015	0.015	0.015	0.015	0.016	0.016	0.015	7.2
1,2-Dichloroethane-d4			0.370	0.369	0.341	0.353	0.375	0.349	0.359	3.7
Benzene	1.355	1.686	1.486	1.484	1.499	1.312	1.350	1.406	1.447	8.3
1,2-Dichloroethane (EDC)	0.434	0.445	0.481	0.501	0.513	0.479	0.503	0.478	0.479	5.8
TAME	not	spiked	(X)		0.061	0.024	0.022	0.023	0.033	58.6*
n-Heptane			0.502	0.459	0.409	0.337	0.340		0.409	17.8#
Trichloroethene (TCE)	0.440	0.490	0.392	0.383	0.364	0.326	0.357	0.381	0.391	13.1
Methylcyclohexane	0.496	0.506	0.527	0.515	0.401	0.454	0.442	0.488	0.479	8.9
1,2-Dichloropropane	0.534	0.525	0.486	0.500	0.486	0.476	0.498	0.478	0.498	4.3
Methyl Methacrylate	0.083	0.105	0.086	0.085	0.091	0.088	0.092	0.090	0.090	7.3
1,4-Dioxane			0.003	0.003	0.003	0.003	0.003	0.003	0.003	5.0
Dibromomethane	0.320	0.248	0.263	0.277	0.273	0.268	0.283	0.270	0.275	7.5
Bromodichloromethane		0.556	0.526	0.522	0.524	0.527	0.555	0.561	0.539	3.3
2-Nitropropane	0.083	0.087	0.101	0.092	0.104	0.094	0.108	0.103	0.096	9.2
2-Chloroethyl Vinyl Ether	0.276	0.183	0.211	0.205	0.226	0.227	0.250	0.259	0.230	13.3
cis-1,3-Dichloropropene	0.737	0.686	0.669	0.734	0.714	0.719	0.735	0.750	0.718	3.8
4-Methyl-2-pentanone (MIBK)	0.474	0.515	0.463	0.502	0.487	0.503	0.477	0.507	0.491	3.8
Toluene	1.579	1.734	1.556	1.579	1.451	1.355	1.366	1.533	1.519	8.3
trans-1,3-Dichloropropene	0.644	0.662	0.624	0.645	0.647	0.647	0.668	0.680	0.652	2.6
Ethyl Methacrylate	0.526	0.620	0.566	0.566	0.566	0.574	0.568	0.578	0.570	4.5
1,1,2-Trichloroethane	0.352	0.335	0.313	0.320	0.318	0.323	0.327	0.334	0.328	3.8
Toluene-d8			1.193	1.161	1.122	1.234	1.144	1.160	1.169	3.4
4-Bromofluorobenzene			0.521	0.531	0.499	0.540	0.525	0.535	0.525	2.7
Tetrachloroethene (PCE)	0.345	0.394	0.382	0.377	0.357	0.305	0.325	0.387	0.359	8.9
2-Hexanone	0.385	0.327	0.347	0.348	0.342	0.344	0.356	0.342	0.349	4.8
1,3-Dichloropropane	0.648	0.653	0.693	0.695	0.700	0.684	0.687	0.674	0.679	2.9
n-Butyl Acetate	0.865	0.881	0.822	0.861	0.894	0.904	0.922	0.908	0.882	3.6
Dibromochloromethane	0.432	0.432	0.451	0.417	0.455	0.452	0.467	0.491	0.450	5.1
1,2-Dibromoethane (EDB)	0.386	0.428	0.402	0.399	0.401	0.405	0.422	0.425	0.409	3.7
Chlorobenzene	1.104	1.187	1.065	1.035	1.046	0.945	0.984	1.106	1.059	7.1
1,1,1,2-Tetrachloroethane	0.457	0.436	0.377	0.389	0.384	0.357	0.379	0.419	0.400	8.5
Ethylbenzene	1.803	1.945	1.798	1.890	1.719	1.433	1.593	1.773	1.744	9.4
m,p-Xylenes	0.647	0.733	0.642	0.676	0.613	0.550	0.558	0.664	0.635	9.6
o-Xylene	0.641	0.723	0.622	0.681	0.623	0.574	0.599	0.663	0.641	7.4
Styrene	1.044	1.133	1.088	1.077	1.004	0.978	1.014	1.071	1.051	4.8
Bromoform	0.281	0.259	0.228	0.267	0.266	0.281	0.290	0.310	0.273	8.9
Isopropylbenzene	1.595	1.704	1.507	1.569	1.448	1.271	1.298	1.591	1.498	10.1
Cyclohexanone	0.061	0.069	0.063	0.069	0.069	0.067	0.061	0.058	0.065	6.7
1,1,2,2-Tetrachloroethane	1.212	1.068	1.039	1.027	1.001	0.996	1.007	1.048	1.050	6.7
trans-1,4-Dichloro-2-butene	0.260	0.287	0.203	0.209	0.205	0.211	0.219	0.229	0.228	13.2
1,2,3-Trichloropropane	0.289	0.303	0.257	0.252	0.242	0.253	0.256	0.253	0.263	8.1
n-Propylbenzene	4.308	4.819	4.105	4.212	3.790	3.451	3.493	4.178	4.044	11.2
Bromobenzene	1.007	1.039	0.954	0.997	0.925	0.873	0.911	0.989	0.962	5.8
1,3,5-Trimethylbenzene	2.663	2.873	2.560	2.578	2.328	2.108	2.217	2.621	2.493	10.2
2-Chlorotoluene	2.788	2.991	2.587	2.551	2.495	2.202	2.271	2.623	2.564	10.0

## Initial Calibration - Detailed Report

<b>Calibration ID:</b>	CAL881	<b>Instrument ID:</b>	MS #7
<b>Method ID:</b>	MJ127	<b>Column Name:</b>	MS
		<b>Calibration Fit:</b>	AverageRF

Parameter Name	FileID								Mean RF	%RSD
	7286	7287	7288	7289	7290	7291	7292	7293		
4-Chlorotoluene	3.011	3.038	2.598	2.708	2.457	2.312	2.436	2.757	2.665	10.0
tert-Butylbenzene	2.234	2.203	2.072	2.206	1.891	1.678	1.735	2.159	2.022	11.1
1,2,4-Trimethylbenzene	2.526	2.920	2.536	2.560	2.389	2.191	2.281	2.717	2.515	9.3
sec-Butylbenzene	3.001	3.342	3.107	3.111	2.636	2.410	2.367	3.135	2.889	12.7
4-Isopropyltoluene	2.849	2.556	2.444	2.458	2.162	2.027	1.977	2.569	2.380	12.6
1,3-Dichlorobenzene	1.717	1.881	1.639	1.654	1.522	1.458	1.478	1.693	1.630	8.7
1,4-Dichlorobenzene	1.853	1.985	1.644	1.718	1.588	1.509	1.514	1.703	1.689	9.8
n-Butylbenzene	2.595	2.515	2.352	2.369	2.134	1.940	1.916	2.647	2.308	12.3
1,2-Dichlorobenzene	1.704	1.792	1.527	1.579	1.485	1.425	1.457	1.661	1.579	8.2
1,2-Dibromo-3-chloropropane (DBC)	0.224	0.153	0.159	0.165	0.161	0.167	0.174	0.188	0.174	13.1
1,2,4-Trichlorobenzene	0.843	0.834	0.720	0.757	0.687	0.681	0.708	0.856	0.761	9.6
Hexachlorobutadiene			0.344	0.362	0.264	0.254	0.229		0.291	20.2#
Naphthalene	2.271	2.137	1.868	1.899	1.892	1.929	1.975	2.165	2.017	7.5
1,2,3-Trichlorobenzene	0.841	0.755	0.649	0.639	0.607	0.612	0.627	0.742	0.684	12.4

# RSD Not Applicable. Compound being quantitated from curve. Included in Average RF summary for Average %RSD calculation.

1 compound out of 102 failed Maximum %RSD criteria

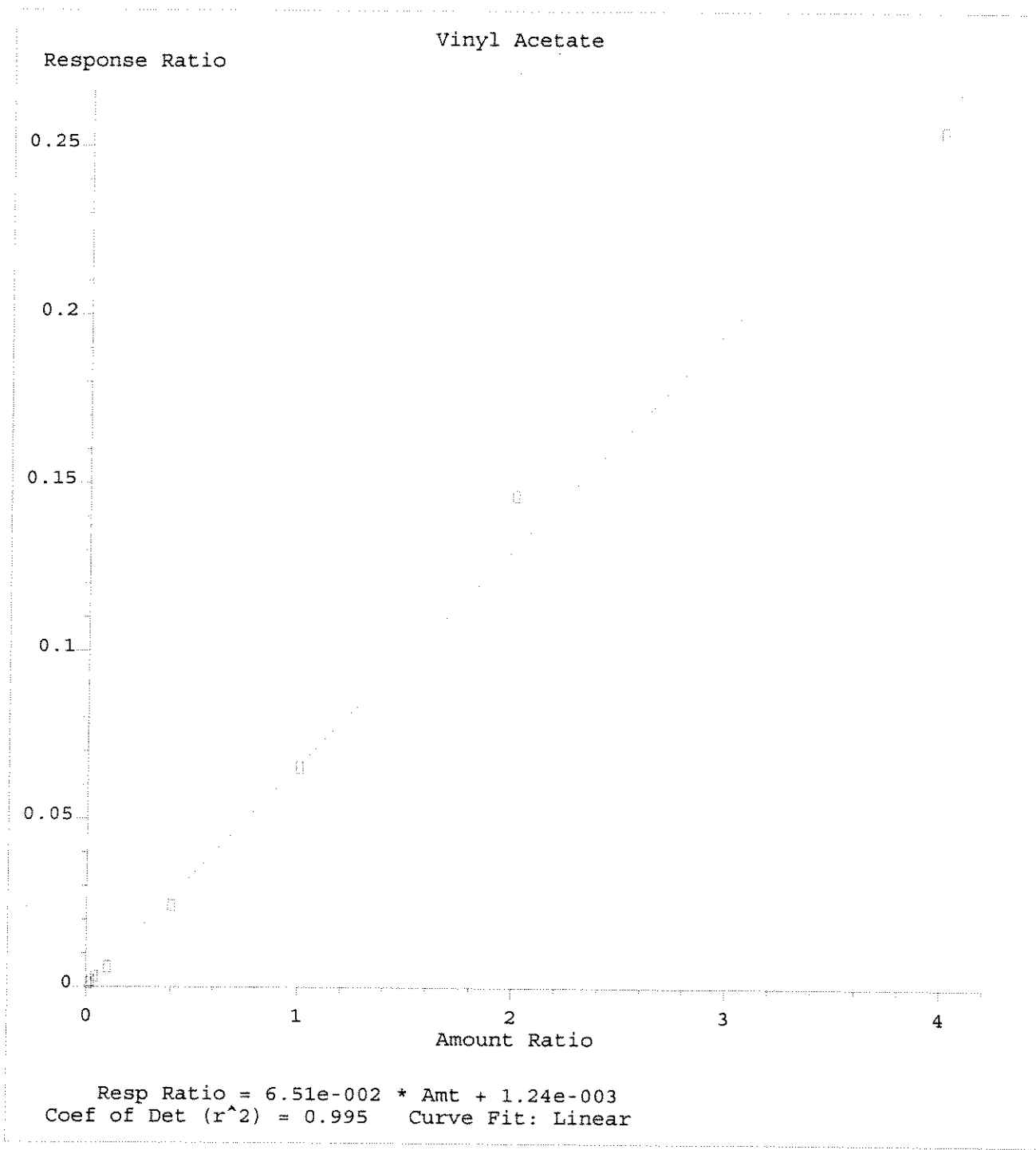
## Initial Calibration - Detailed Report

<b>Calibration ID:</b> CAL881 <b>Method ID:</b> MJ127	<b>Instrument ID:</b> MS #7 <b>Column Name:</b> MS <b>Calibration Fit:</b> Linear
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FileID	File Location	Acquisition Date	Quantitation Date	Last Updated
7286	J:\ACQUDATA\MSVOA7\DATA\030509\M6754.D	03/05/2009 16:58	03/06/2009 11:44	03/12/2009 13:08
7287	J:\ACQUDATA\MSVOA7\DATA\030509\M6755.D	03/05/2009 17:35	03/06/2009 11:42	03/12/2009 13:08
7288	J:\ACQUDATA\MSVOA7\DATA\030509\M6756.D	03/05/2009 18:12	03/06/2009 11:46	03/12/2009 13:08
7289	J:\ACQUDATA\MSVOA7\DATA\030509\M6757.D	03/05/2009 18:49	03/06/2009 11:49	03/12/2009 13:08
7290	J:\ACQUDATA\MSVOA7\DATA\030509\M6758.D	03/05/2009 19:26	03/06/2009 11:29	03/12/2009 13:08
7291	J:\ACQUDATA\MSVOA7\DATA\030509\M6759.D	03/05/2009 20:03	03/06/2009 11:29	03/12/2009 13:08
7292	J:\ACQUDATA\MSVOA7\DATA\030509\M6760.D	03/05/2009 20:40	03/06/2009 11:29	03/12/2009 13:08
7293	J:\ACQUDATA\MSVOA7\DATA\030509\M6761.D	03/05/2009 21:16	03/06/2009 11:30	03/12/2009 13:08

Parameter Name	CoefX2	CoefX	Y-intercept	COD	Mean RF
Vinyl Acetate		0.065	0.001	0.9948	0.070
n-Heptane		0.332	0.014	0.9986	0.409
Hexachlorobutadiene		0.226	0.014	0.9974	0.291

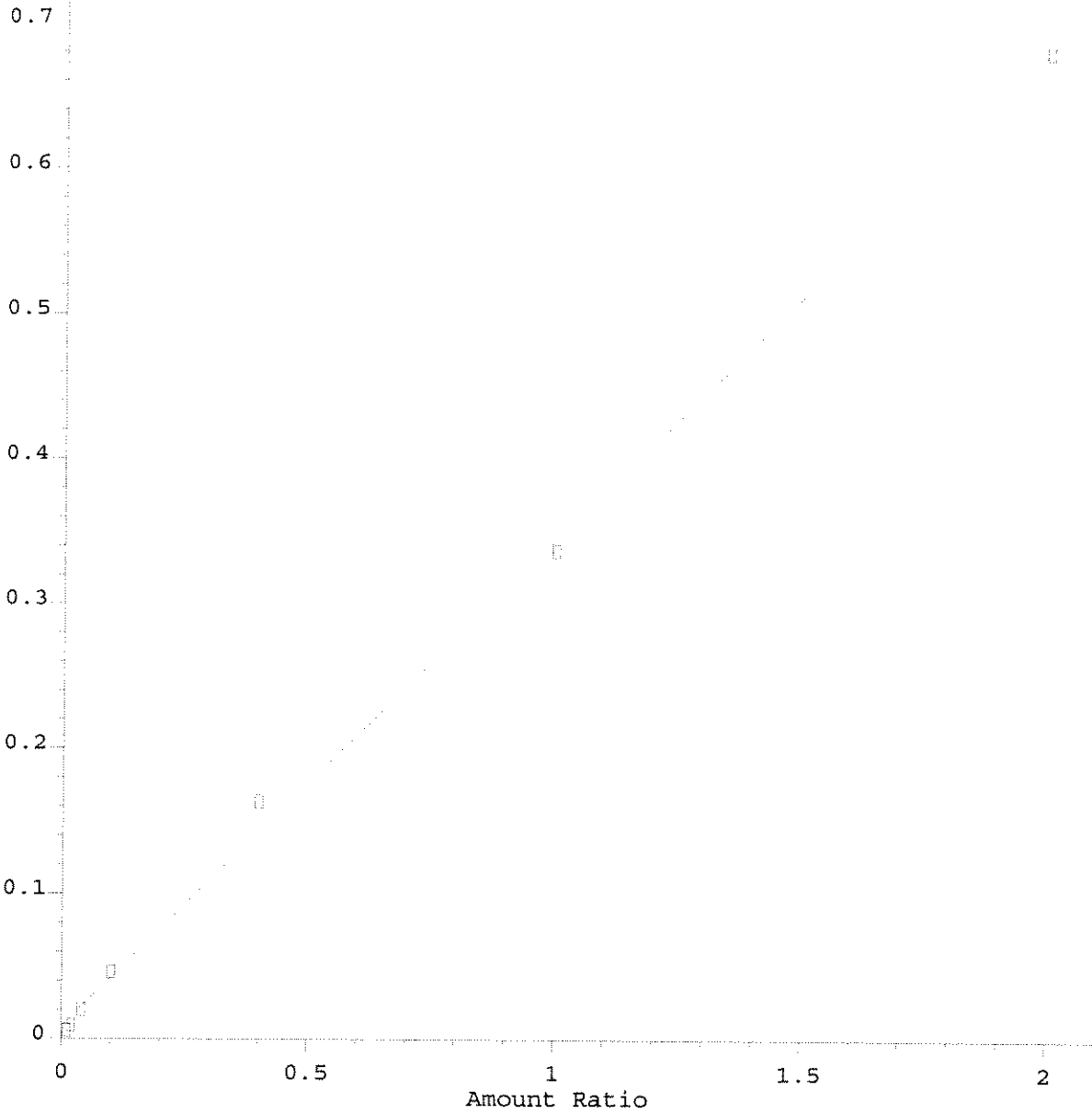




Method Name: J:\ACQUDATA\MSVOA7\METHODS\WAT0305.M  
Calibration Table Last Updated: Fri Mar 06 11:01:07 2009

N-Heptane

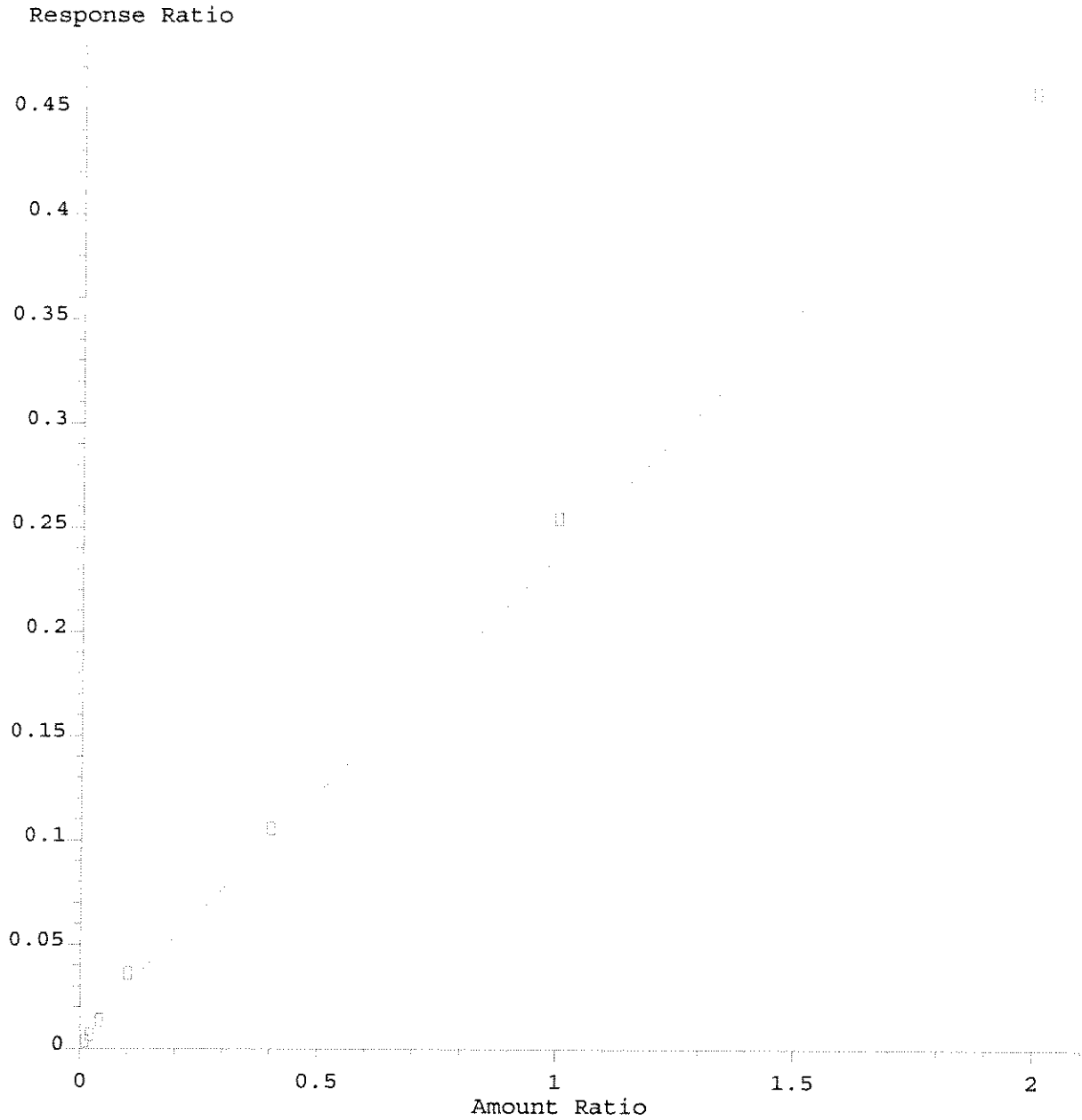
Response Ratio



Resp Ratio =  $3.35e-001 * Amt + 9.06e-003$   
Coef of Det ( $r^2$ ) = 0.998 Curve Fit: Linear

Method Name: J:\ACQUDATA\MSVOA7\METHODS\WAT0305.M  
Calibration Table Last Updated: Fri Mar 06 11:01:07 2009

Hexachlorobt



Resp Ratio = 2.29e-001 \* Amt + 8.48e-003  
Coef of Det (r^2) = 0.997 Curve Fit: Linear

Method Name: J:\ACQUDATA\MSVOA7\METHODS\WAT0305.M  
Calibration Table Last Updated: Fri Mar 06 11:01:07 2009

Data File : J:\ACQUDATA\MSVOA7\DATA\030509\M6754.D Vial: 2  
 Acq On : 5 Mar 2009 4:58 pm Operator: B.Bush  
 Sample : 0.5 Inst : MS #7  
 Misc : Multiplr: 1.00

MS Integration Params: RTEINT.P  
 Quant Time: Mar 6 10:29 2009 Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 06 10:21:51 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.83	168	668751	50.00	ppb	0.00
42) 1,4 - Difluorobenzene	12.18	114	1211697	50.00	ppb	0.00
63) d5 - Chlorobenzene	17.72	117	1149839	50.00	ppb	0.00
86) d4 - Dichlorobenzene	22.50	152	519410	50.00	ppb	0.00

System Monitoring Compounds

44) surr4,Dibrflmethane	10.86	113	451946	49.23	ppb	0.00
Spiked Amount	50.000	Range 89 - 115	Recovery	=	98.46%	
48) surr1,1,2-Diclcethane	11.48	65	453963	52.12	ppb	0.00
Spiked Amount	50.000	Range 80 - 120	Recovery	=	104.24%	
69) surr3,Toluene-d8	14.90	98	1367972	50.88	ppb	0.00
Spiked Amount	50.000	Range 88 - 124	Recovery	=	101.76%	
70) surr2,bfb	20.05	95	596477	49.30	ppb	0.00
Spiked Amount	50.000	Range 80 - 123	Recovery	=	98.60%	

BS  
3/10/09

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	4.22	85	3123	0.42	ppb	96
3) Chloromethane	4.62	50	4728	0.48	ppb	91
4) Vinyl Chloride	4.84	62	4022	0.54	ppb #	87
5) Bromomethane	5.54	96	3365	0.50	ppb	89
6) Chloroethane	5.72	64	3076	0.49	ppb #	58
7) FREON 21	6.05	67	8326	0.48	ppb	90
8) Trichlorofluoromethane	6.21	101	5070	0.52	ppb	90
9) Diethyl Ether	6.67	59	3659	0.55	ppb #	79
10) FREON 123A	6.63	67	5911	0.52	ppb #	70
11) FREON 123	6.74	83	6194	0.54	ppb #	69
12) Acrolein	6.92	56	1776	2.00	ppb #	61
13) FREON 113	7.08	101	3098	0.46	ppb #	79
14) 1,1-Diclcethene	7.13	96	3278	0.50	ppb #	76
15) Acetone	7.16	43	1840	0.72	ppb	91
16) 2-Propanol	7.30	45	4117	10.20	ppb #	82
17) Iodomethane	7.45	142	7443	0.51	ppb	32
18) Carbon Disulfide	7.59	76	14538	0.54	ppb	96
19) Acetonitrile	7.64	41	2167	2.41	ppb #	1
20) Allyl Chloride	7.73	41	8082	0.51	ppb	88
21) Methyl Acetate	7.71	43	3704	0.42	ppb #	88
22) Methylene Chloride	7.92	84	4576	0.52	ppb	90
23) TBA	7.96	59	4399	7.69	ppb #	65
24) Acrylonitrile	8.31	53	6171	2.23	ppb	88
25) Methyl-t-Butyl Ether	8.37	73	10166	0.50	ppb #	93
26) trans-1,2-Dichloroethene	8.41	96	4489	0.54	ppb #	67
27) 1,1-Diclcethane	9.10	63	8699	0.49	ppb	97
30) 2-Chloro-1,3-butadiene	9.27	53	5783	0.50	ppb	91
33) 2,2-Dichloropropane	10.09	77	6033	0.54	ppb #	19
34) 2-Butanone	10.03	43	3622	0.75	ppb	94
35) cis-1,2-Dichloroethene	10.08	96	4358	0.47	ppb #	80
36) Propionitrile	10.16	54	2306	2.29	ppb #	91
37) Methacrylonitrile	10.43	67	1967	0.62	ppb	95
38) Bromochloromethane	10.50	128	2621	0.55	ppb #	68
39) Chloroform	10.58	83	7843	0.51	ppb	87
40) Tetrahydrofuran	10.57	42	1550	0.58	ppb #	77

(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\MSVOA7\DATA\030509\M6754.D

Vial: 2

Acq On : 5 Mar 2009 4:58 pm

Operator: B.Bush

Sample : 0.5

Inst : MS #7

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Mar 6 10:29 2009

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)

Title : 8260B.WATERS

Last Update : Fri Mar 06 10:21:51 2009

Response via : Initial Calibration

DataAcq Meth : WAT0305

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) 1,1,1-Trichloroethane	10.97	97	4982	0.45	ppb #	20
43) Cyclohexane	11.12	56	8545	0.55	ppb	84
45) Carbontetrachloride	11.28	117	4476	0.47	ppb	97
46) 1,1-Dichloropropene	11.23	75	5313	0.44	ppb #	83
47) Iso-Butyl Alcohol	11.19	43	3089	8.58	ppb #	44
49) Benzene	11.62	78	16417	0.47	ppb	91
50) 1,2-Dichloroethane	11.61	62	5261	0.45	ppb #	94
52) N-Heptane	11.95	43	6809	Below	Cal	94
53) Trichloroethene	12.70	95	5327	0.56	ppb	93
54) Methylcyclohexane	13.10	55	6013	0.52	ppb	89
55) 1,2-Diclpropane	13.12	63	6466	0.54	ppb	95
56) Methyl Methacrylate	13.17	100	1008	0.45	ppb #	70
57) 1,4-Dioxane	13.29	88	1229	19.82	ppb #	65
58) Dibromomethane	13.34	93	3874	0.58	ppb #	73
59) Bromodichloromethane	13.55	83	7218	0.55	ppb #	79
60) 2-Nitropropane	13.92	43	2015	0.86	ppb #	65
61) 2-Chloroethylvinyl Ether	14.01	63	3339	0.60	ppb #	87
62) cis-1,3-Dichloropropene	14.37	75	8927	0.51	ppb	95
65) Toluene	15.03	91	18159	0.52	ppb	89
66) trans-1,3-Dichloropropene	15.35	75	7405	0.49	ppb	97
67) Ethyl Methacrylate	15.42	69	6044	0.46	ppb	91
68) 1,1,2-Trichloroethane	15.73	83	4049	0.54	ppb #	82
71) Tetrachloroethene	16.10	166	3963	0.48	ppb #	90
72) 2-Hexanone	16.13	43	4422	0.55	ppb #	83
73) 1,3-Dichloropropane	16.09	76	7447	0.48	ppb	88
74) Butyl Acetate	16.30	43	9945	0.49	ppb #	95
75) Dibromochloromethane	16.56	129	4971	0.48	ppb #	70
76) 1,2-Dibromoethane	16.85	107	4437	0.47	ppb #	78
77) Chlorobenzene	17.78	112	12689	0.52	ppb	96
78) 1,1,1,2-Tetrachloroethane	17.89	131	5254	0.57	ppb	82
79) Ethylbenzene	17.94	91	20730	0.52	ppb	99
80) (m+p)Xylene	18.15	106	14876	1.02	ppb	83
81) o-Xylene	18.98	106	7371	0.50	ppb	76
82) Styrene	19.01	104	12008	0.50	ppb #	83
83) Bromoform	19.45	173	3232	0.52	ppb	97
84) Isopropylbenzene	19.69	105	18342	0.54	ppb	95
85) Cyclohexanone	19.97	55	14060	9.43	ppb	100
87) 1,1,2,2-Tetrachloroethane	20.25	83	6296	0.58	ppb #	87
88) Trans-1,4-Dichloro-2-buten	20.38	53	1348	0.56	ppb #	33
89) 1,2,3-Trichloropropane	20.42	110	1503	0.55	ppb	90
90) n-Propylbenzene	20.55	91	22375	0.53	ppb	95
91) Bromobenzene	20.44	156	5231	0.53	ppb	86
92) 1,3,5-Trimethylbenzene	20.88	105	13831	0.54	ppb	100
93) 2-Chlorotoluene	20.80	91	14481	0.55	ppb	95
94) 4-Chlorotoluene	21.02	91	15638	0.57	ppb	93
96) 1,2,4-Trimethylbenzene	21.69	105	13121	0.50	ppb	99
97) sec-Butylbenzene	22.05	105	15588	0.52	ppb	95
98) p-Isopropyltoluene	22.33	119	14797	0.60	ppb #	87
99) 1,3-Dclbenz	22.37	146	8916	0.53	ppb	87
100) 1,4-Dclbenz	22.55	146	9623	0.55	ppb	95

(#)=qualifier out of range (m)=manual integration

M6754.D WAT0305.M

Fri Mar 06 10:29:18 2009

Quantitation Report (Not Reviewed)

Data File : J:\ACQUDATA\MSVOA7\DATA\030509\M6754.D  
 Acq On : 5 Mar 2009 4:58 pm  
 Sample : 0.5  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Mar 6 10:29 2009

Vial: 2  
 Operator: B.Bush  
 Inst : MS #7  
 Multiplr: 1.00

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 06 10:21:51 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

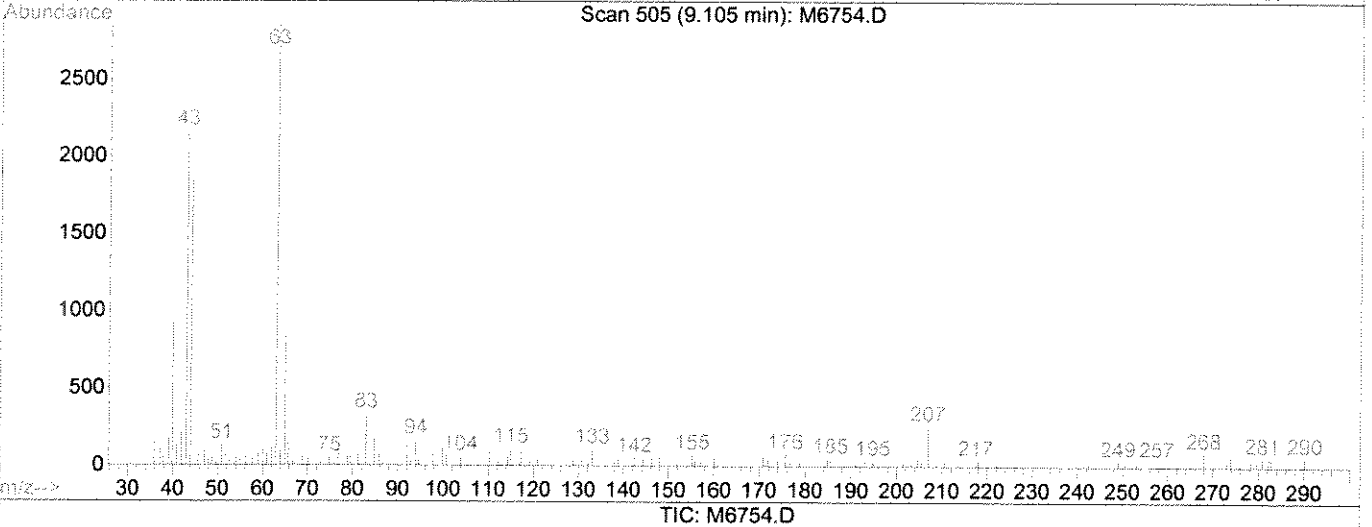
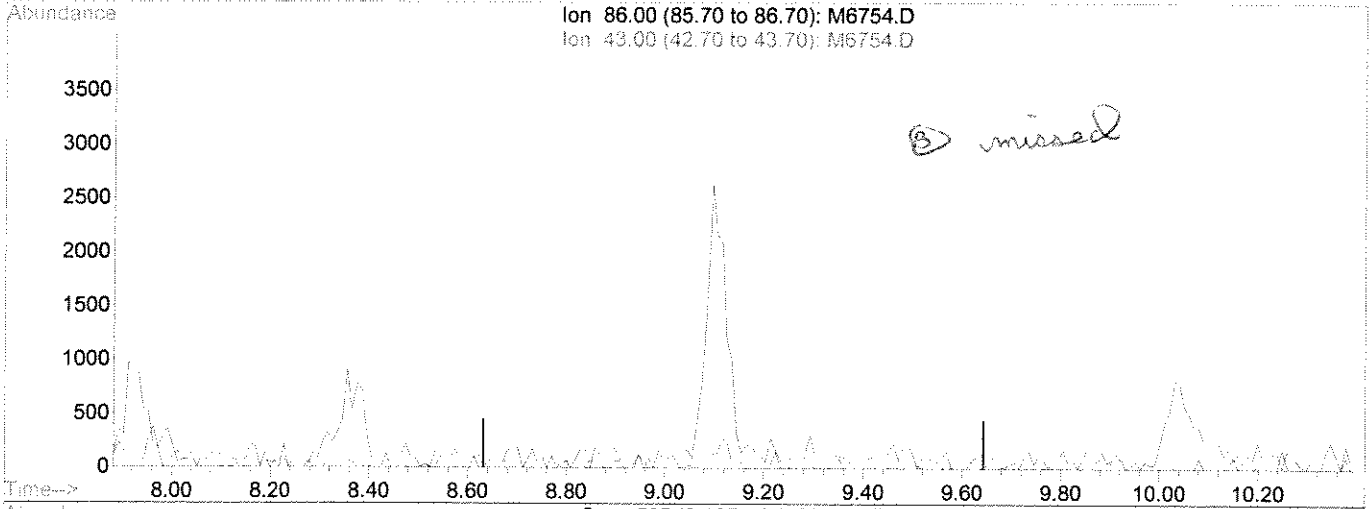
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
101) n-Butylbenzene	23.23	91	13477	0.56	ppb	89
102) 1,2-Dclbenz	23.42	146	8849	0.53	ppb #	91
103) 1,2-Dibromo-3-chloropropan	25.28	157	1161	0.65	ppb	86
105) 1,2,4-Tcbenzene	27.37	180	4380	0.56	ppb #	73
106) Hexachlorobt	27.71	225	1922	Below Cal	#	41
107) Naphthalen	27.99	128	11795	0.56	ppb #	91
108) 1,2,3-Tclbenzene	28.59	180	4367	0.62	ppb #	91
28) VINYL ACETATE	9.10		782	BELOW CAL		BB
31) ALLYL ALCOHOL	8.38		3201	0.0		BB
64) 4-methyl-2pent	14.56		57	0.48	ppb	BB
95) Terd - Butylbenzene	21.60		11605	0.56	ppb	BB

(#) = qualifier out of range (m) = manual integration  
 M6754.D WAT0305.M Fri Mar 06 10:29:18 2009

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA7\DATA\030509\M6754.D Vial: 2  
Acq On : 5 Mar 2009 4:58 pm Operator: B.Bush  
Sample : 0.5 Inst : MS #7  
Misc : Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Mar 6 10:41 2009 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
Title : 8260B.WATERS  
Last Update : Fri Mar 06 10:41:46 2009  
Response via : Multiple Level Calibration



(28) Vinyl Acetate

9.10min 0.00ppb

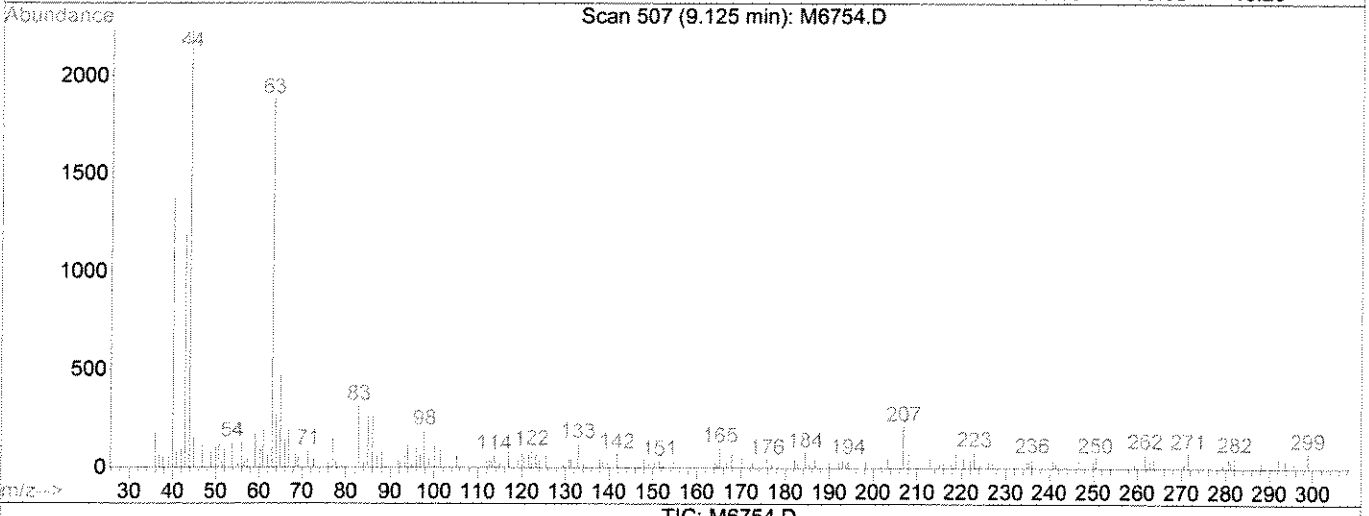
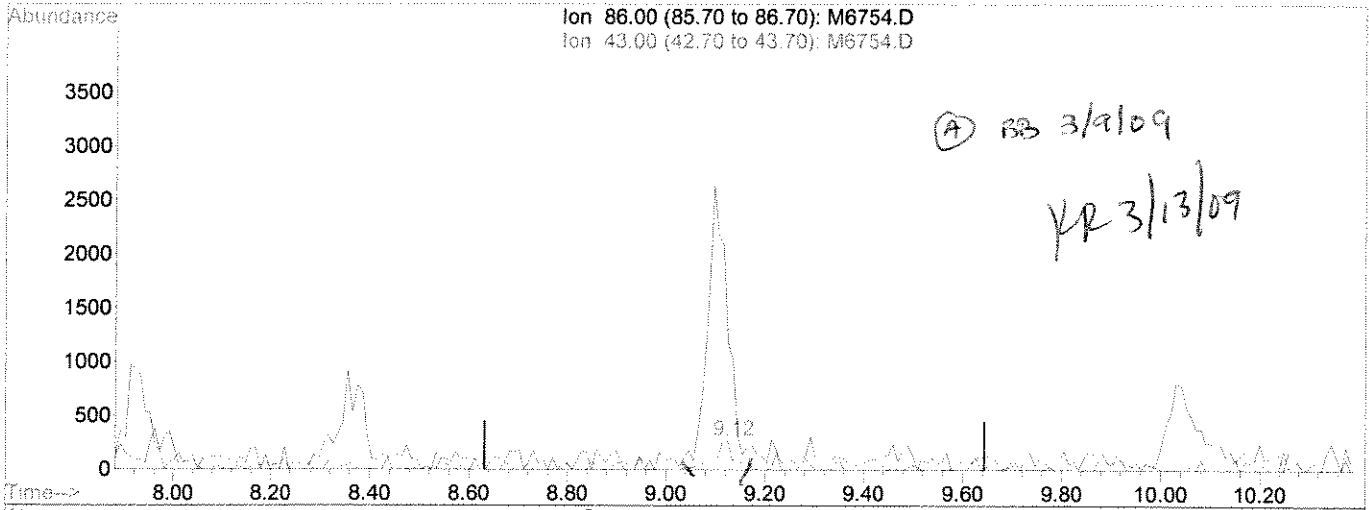
response 0

Ion	Exp%	Act%
86.00	100	0.00
43.00	1753.70	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA7\DATA\030509\M6754.D Vial: 2  
Acq On : 5 Mar 2009 4:58 pm Operator: B.Bush  
Sample : 0.5 Inst : MS #7  
Misc : Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Mar 6 10:44 2009 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
Title : 8260B.WATERS  
Last Update : Fri Mar 06 10:41:46 2009  
Response via : Multiple Level Calibration



(28) Vinyl Acetate

9.12min -0.10ppb m

response 782

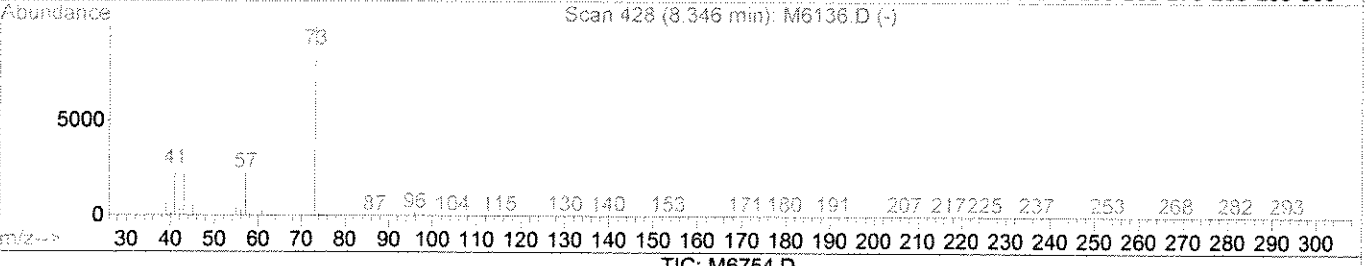
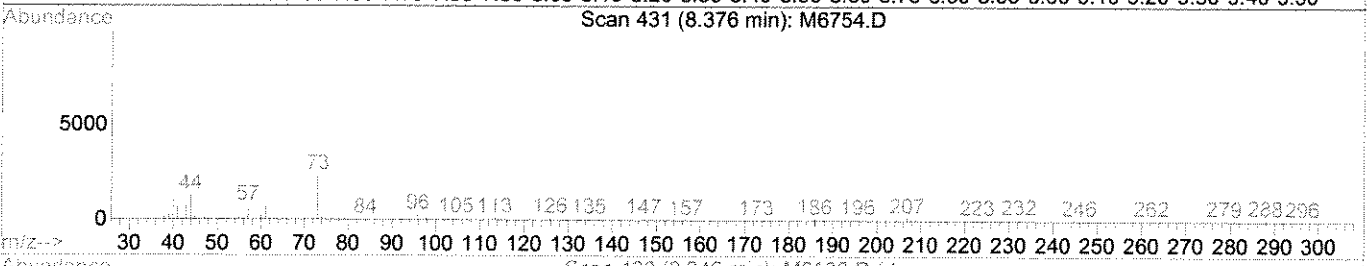
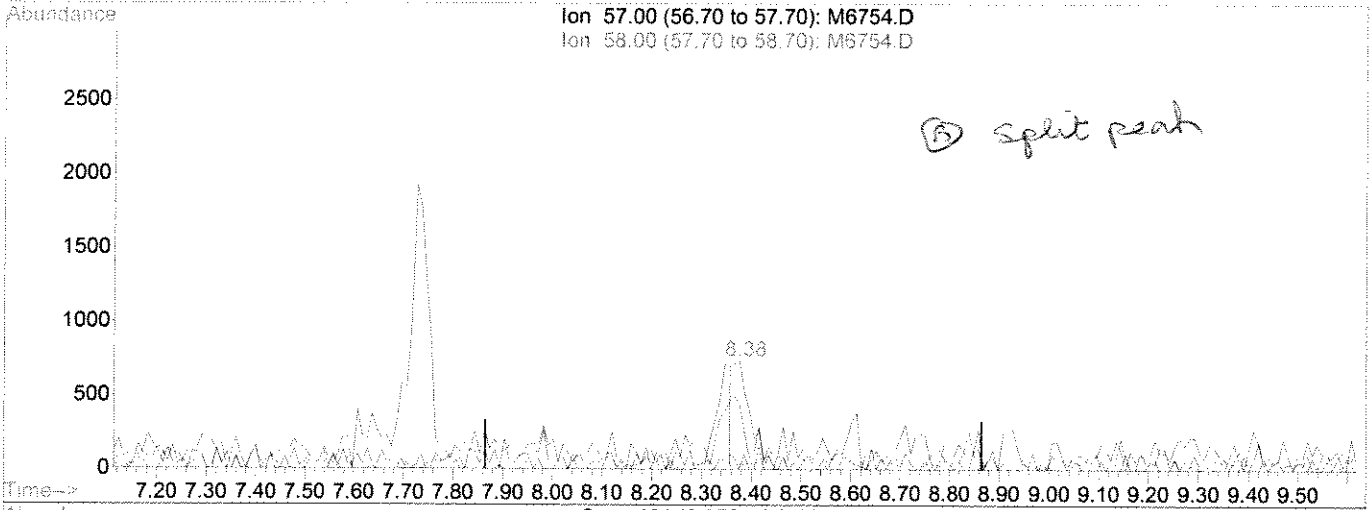
Ion	Exp%	Act%
86.00	100	100
43.00	1753.70	439.85#
0.00	0.00	0.00
0.00	0.00	0.00



Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA7\DATA\030509\M6754.D Vial: 2  
 Acq On : 5 Mar 2009 4:58 pm Operator: B.Bush  
 Sample : 0.5 Inst : MS #7  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Mar 6 10:29 2009 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 06 10:34:47 2009  
 Response via : Single Level Calibration



TIC: M6754.D

(31) Allyl Alcohol

8.38min 0.00ppb

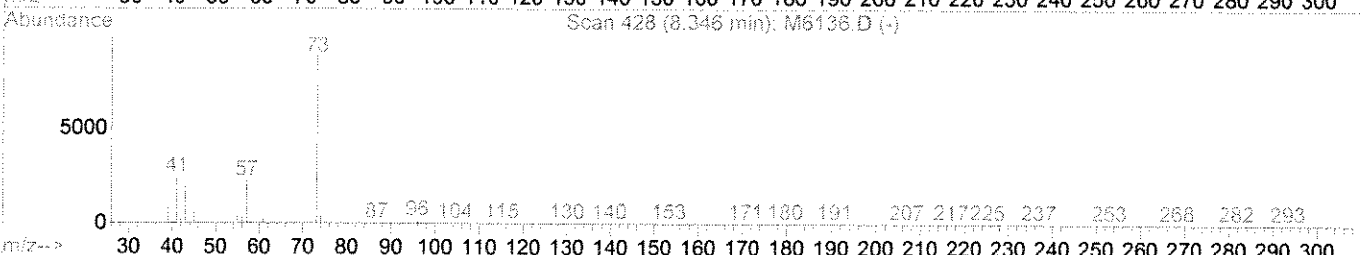
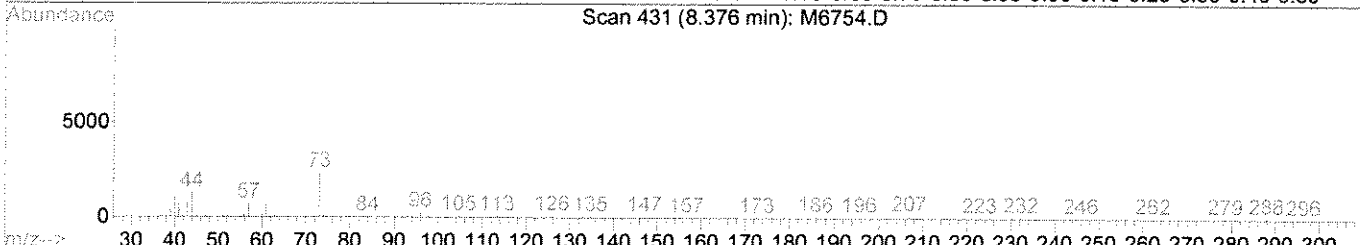
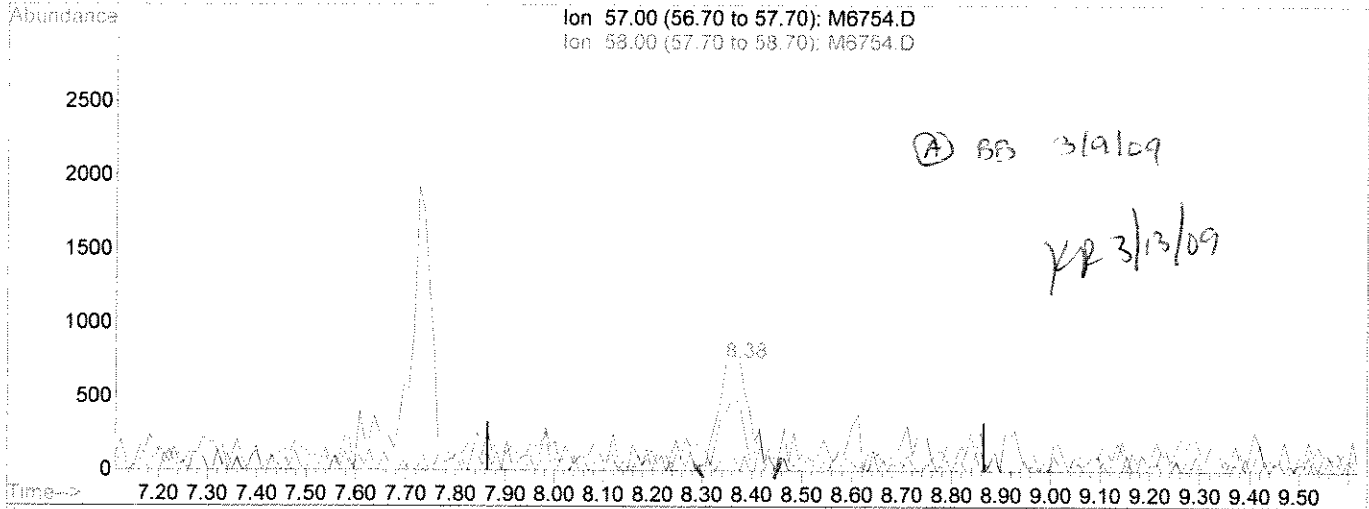
response 1559

Ion	Exp%	Act%
57.00	100	100
58.00	6.00	0.00
39.00	40.80	60.49
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQDATA\MSVOA7\DATA\030509\M6754.D Vial: 2  
 Acq On : 5 Mar 2009 4:58 pm Operator: B.Bush  
 Sample : 0.5 Inst : MS #7  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Mar 6 10:38 2009 Quant Results File: temp.res

Method : J:\ACQDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 06 10:34:47 2009  
 Response via : Single Level Calibration



TIC: M6754.D

(31) Allyl Alcohol

8.38min 0.00ppb m

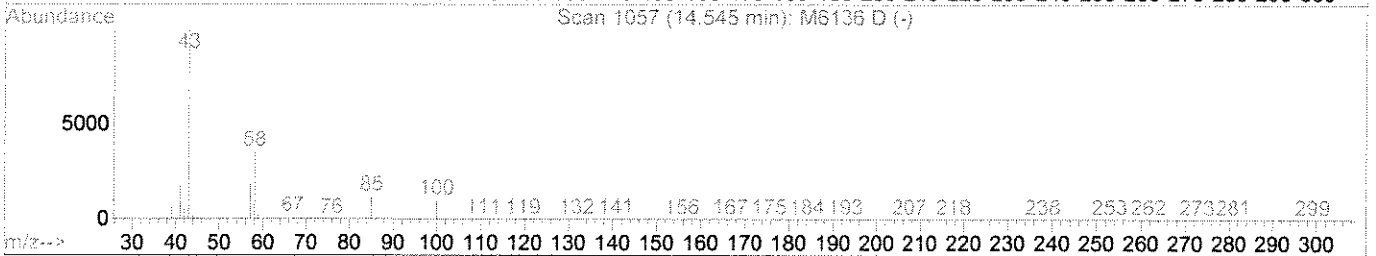
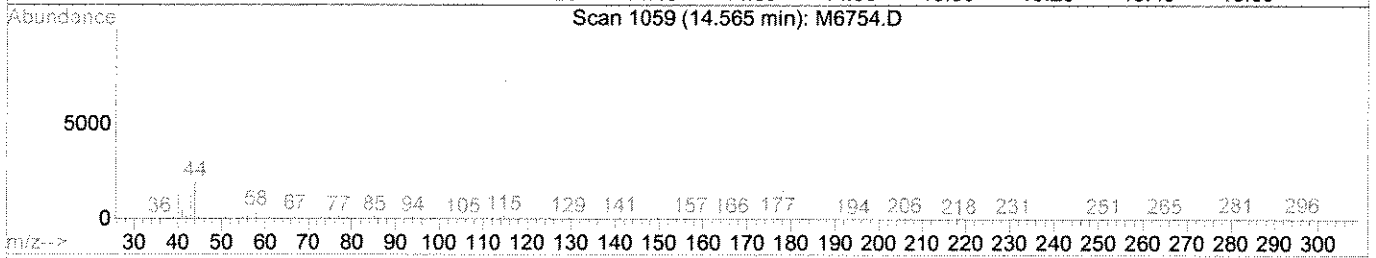
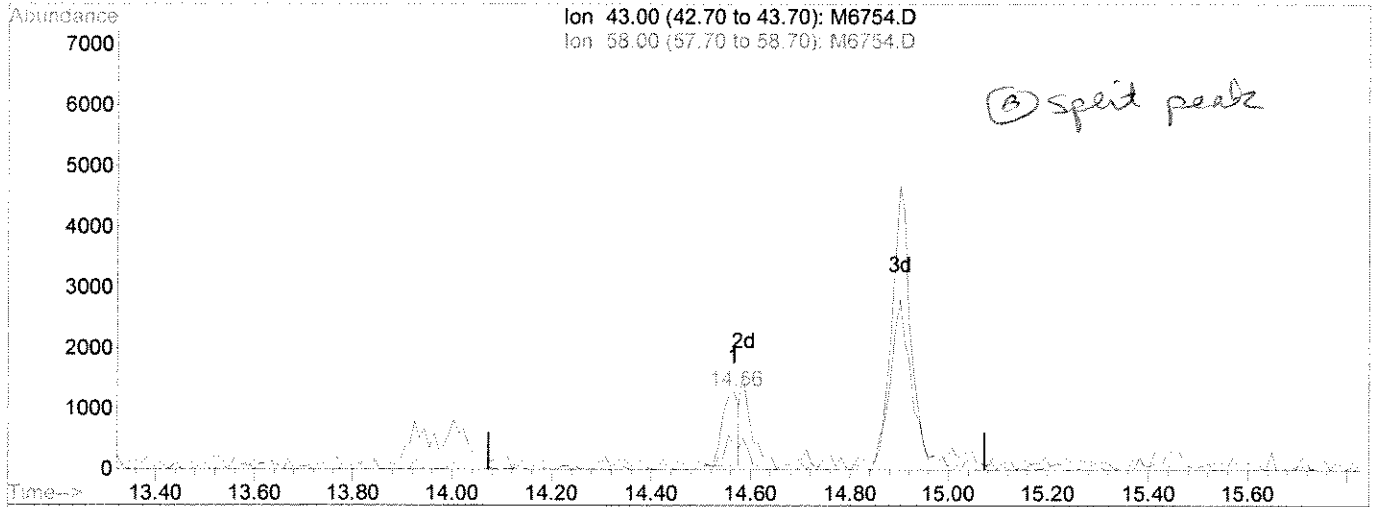
response 3301

Ion	Exp%	Act%
57.00	100	100
58.00	6.00	0.00
39.00	40.80	60.49
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA7\DATA\030509\M6754.D Vial: 2  
 Acq On : 5 Mar 2009 4:58 pm Operator: B.Bush  
 Sample : 0.5 Inst : MS #7  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Mar 6 10:38 2009 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 06 10:34:47 2009  
 Response via : Multiple Level Calibration



TIC: M6754.D

(64) 4-Methyl-2-Pentanone

14.56min 0.24ppb

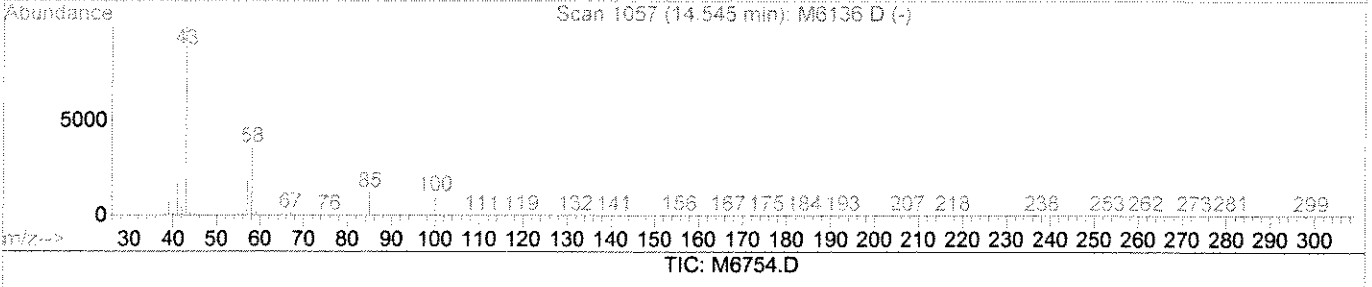
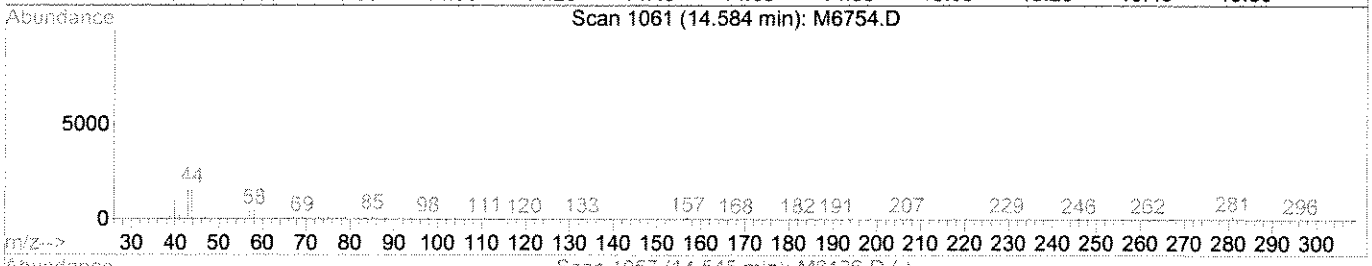
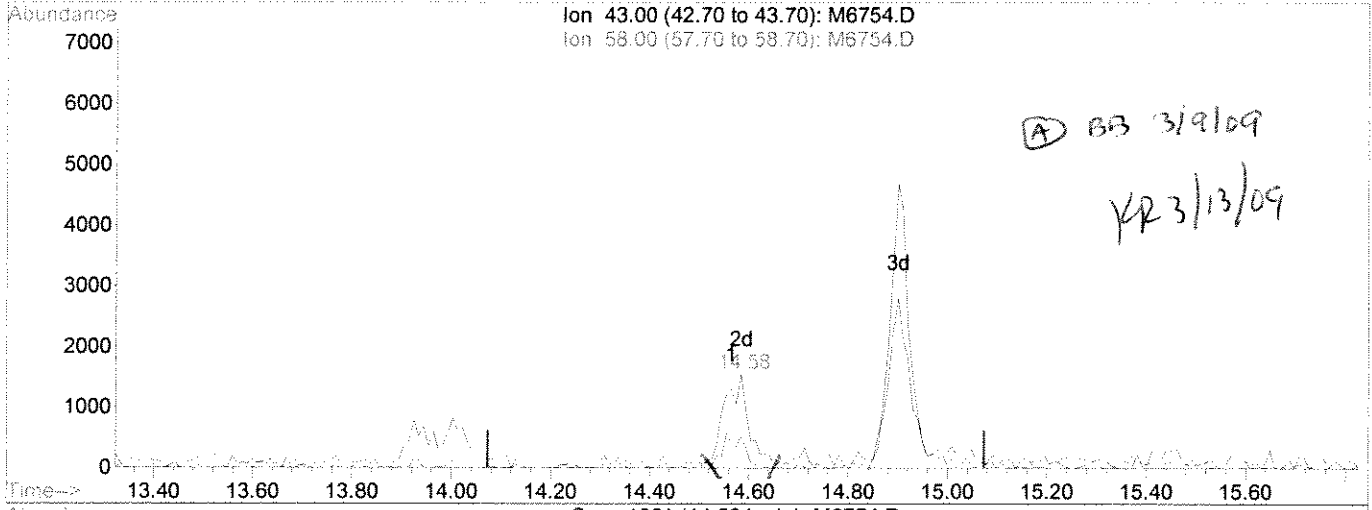
response 2736

Ion	Exp%	Act%
43.00	100	100
58.00	32.90	32.74
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA7\DATA\030509\M6754.D Vial: 2  
 Acq On : 5 Mar 2009 4:58 pm Operator: B.Bush  
 Sample : 0.5 Inst : MS #7  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Mar 6 10:40 2009 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 06 10:34:47 2009  
 Response via : Multiple Level Calibration



(64) 4-Methyl-2-Pentanone

14.58min 0.48ppb m

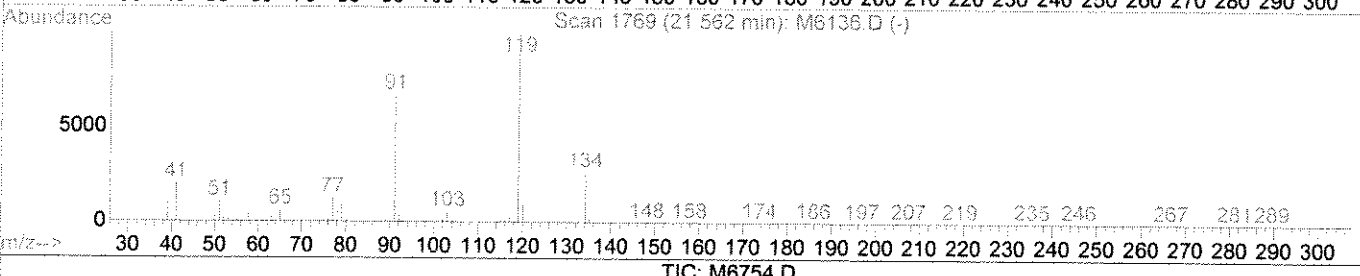
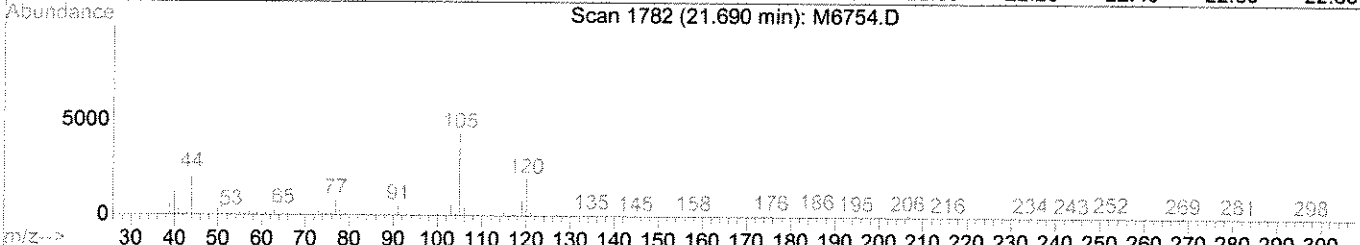
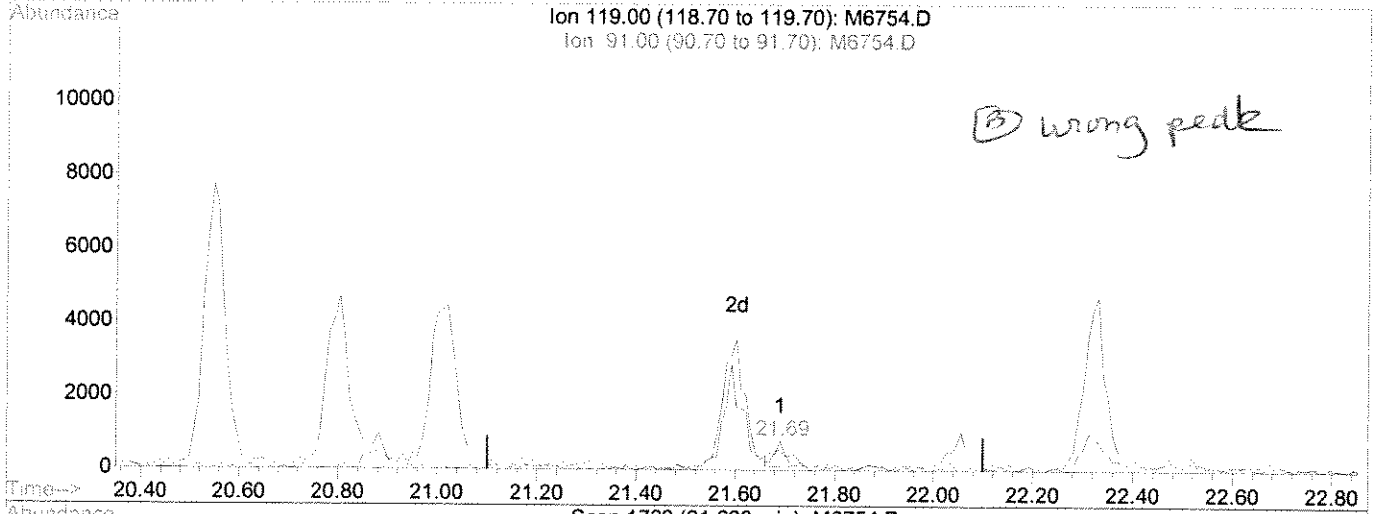
response 5449

Ion	Exp%	Act%
43.00	100	100
58.00	32.90	33.33
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA7\DATA\030509\M6754.D Vial: 2  
 Acq On : 5 Mar 2009 4:58 pm Operator: B.Bush  
 Sample : 0.5 Inst : MS #7  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Mar 6 10:40 2009 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 06 10:34:47 2009  
 Response via : Multiple Level Calibration



(95) tert-Butylbenzene

21.69min 0.05ppb

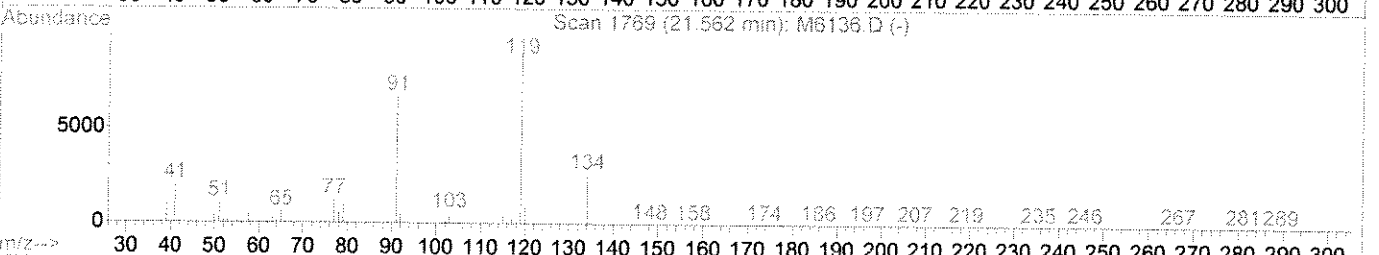
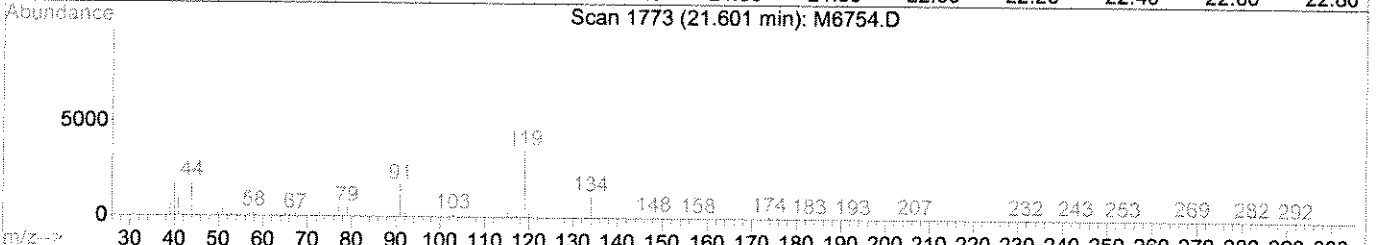
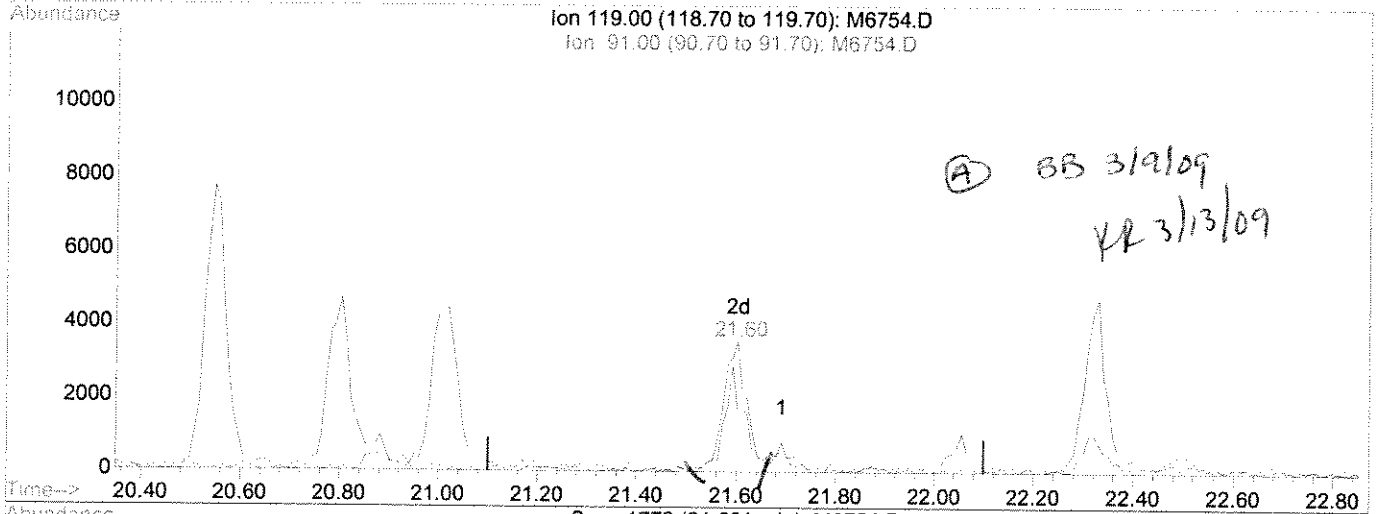
response 1144

Ion	Exp%	Act%
119.00	100	100
91.00	70.60	67.32
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA7\DATA\030509\M6754.D Vial: 2  
 Acq On : 5 Mar 2009 4:58 pm Operator: B.Bush  
 Sample : 0.5 Inst : MS #7  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Mar 6 10:41 2009 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 06 10:34:47 2009  
 Response via : Multiple Level Calibration



TIC: M6754.D

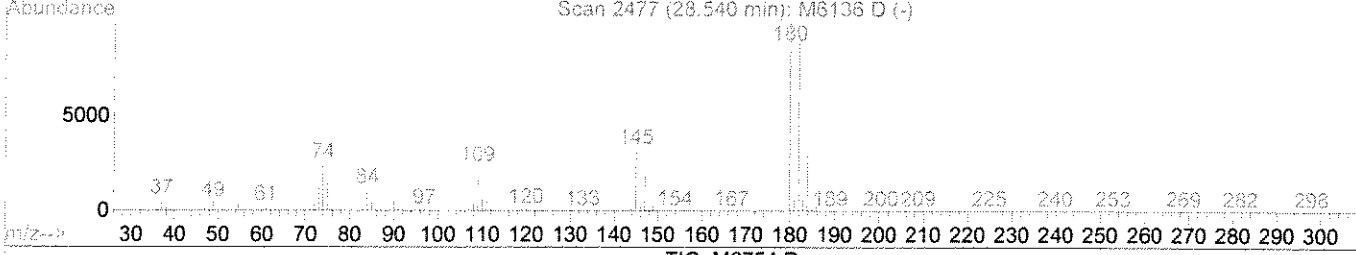
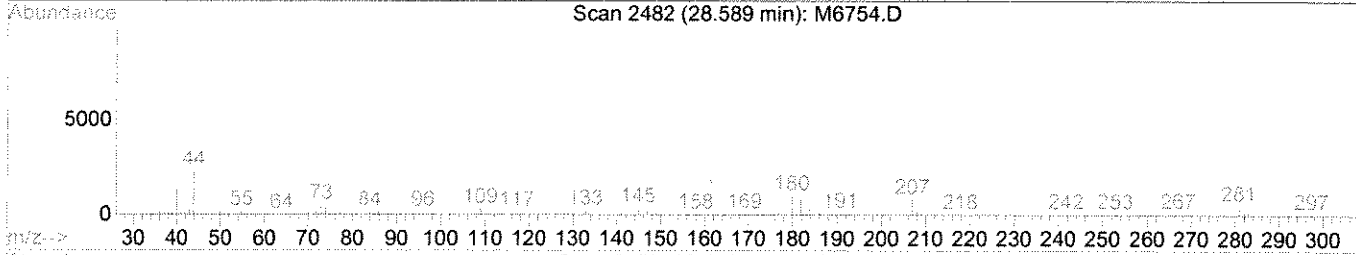
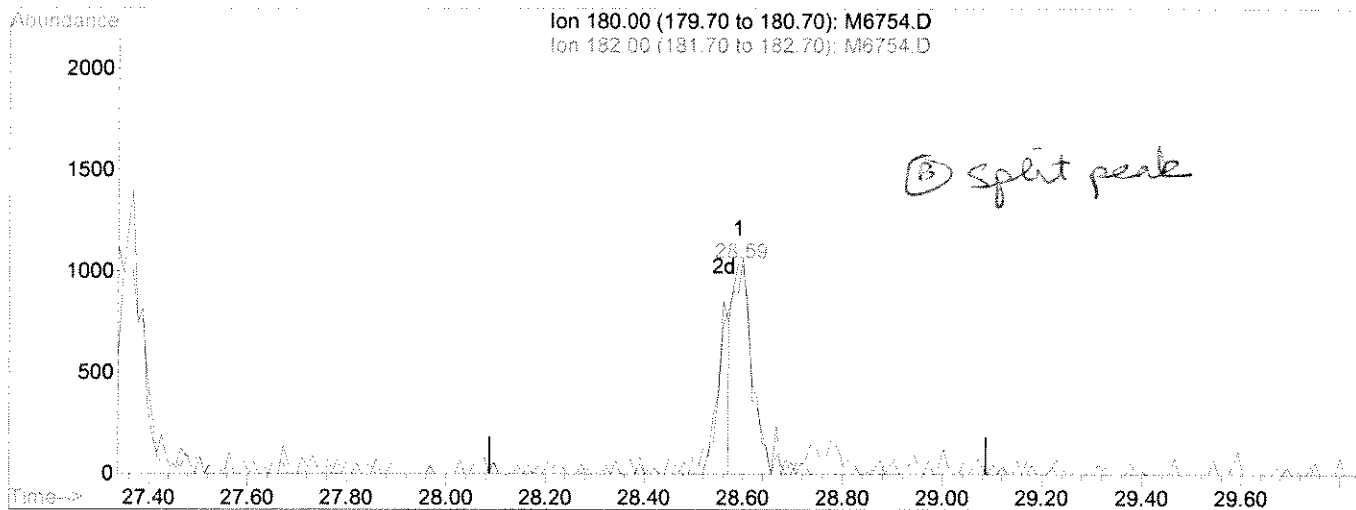
(95) tert-Butylbenzene  
 21.60min 0.56ppb m  
 response 11605

Ion	Exp%	Act%
119.00	100	100
91.00	70.60	48.26#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA7\DATA\030509\M6754.D Vial: 2  
 Acq On : 5 Mar 2009 4:58 pm Operator: B.Bush  
 Sample : 0.5 Inst : MS #7  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Mar 6 10:41 2009 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 06 10:34:47 2009  
 Response via : Multiple Level Calibration



(108) 1,2,3-Tolbenzene

28.59min 0.40ppb

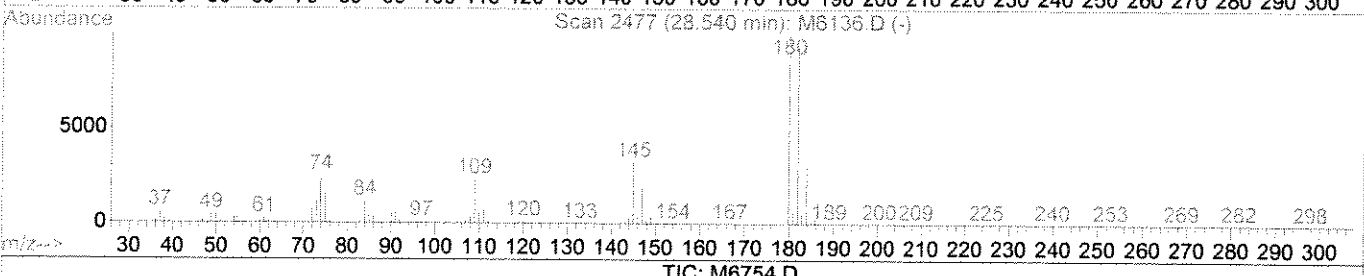
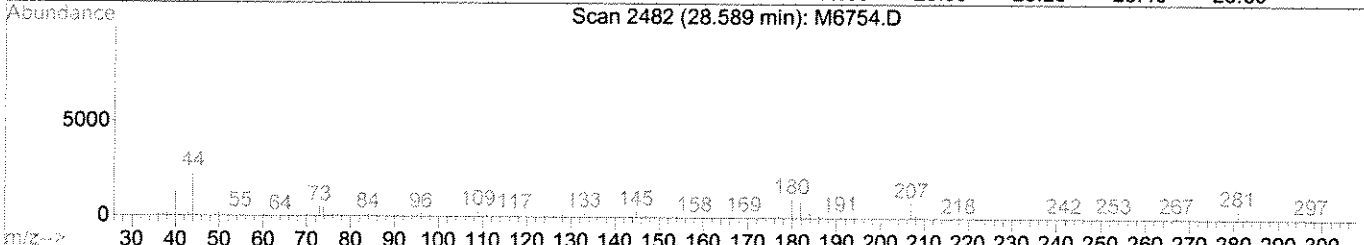
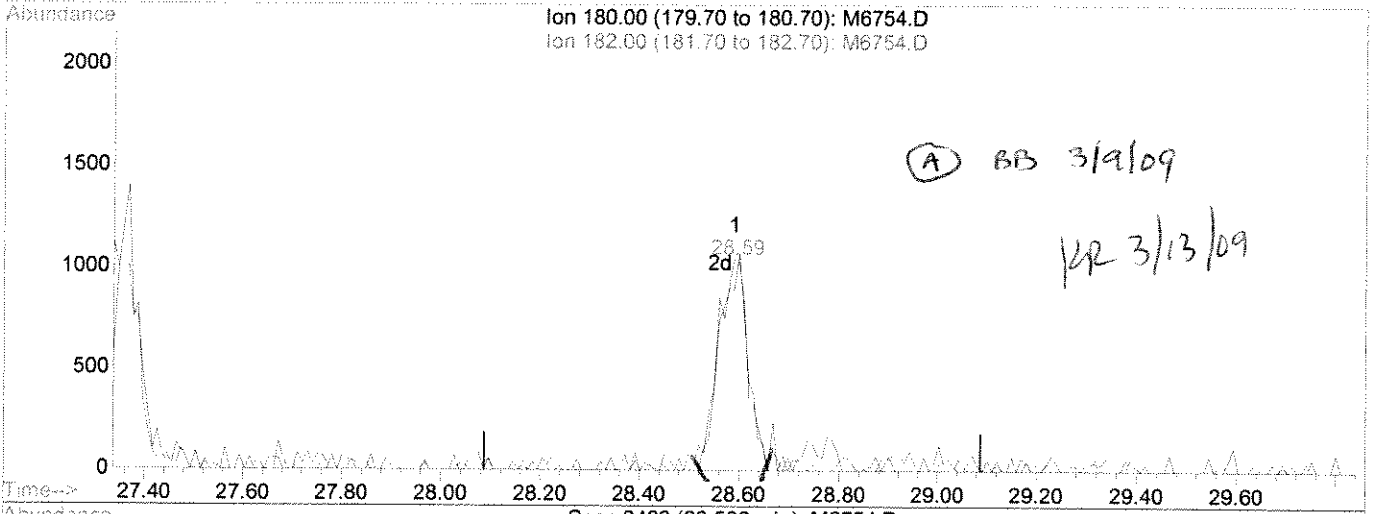
response 2867

Ion	Exp%	Act%
180.00	100	100
182.00	94.90	85.80
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA7\DATA\030509\M6754.D Vial: 2  
 Acq On : 5 Mar 2009 4:58 pm Operator: B.Bush  
 Sample : 0.5 Inst : MS #7  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Mar 6 10:41 2009 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 06 10:34:47 2009  
 Response via : Multiple Level Calibration



(108) 1,2,3-Tclbenzene

28.59min 0.62ppb m

response 4367

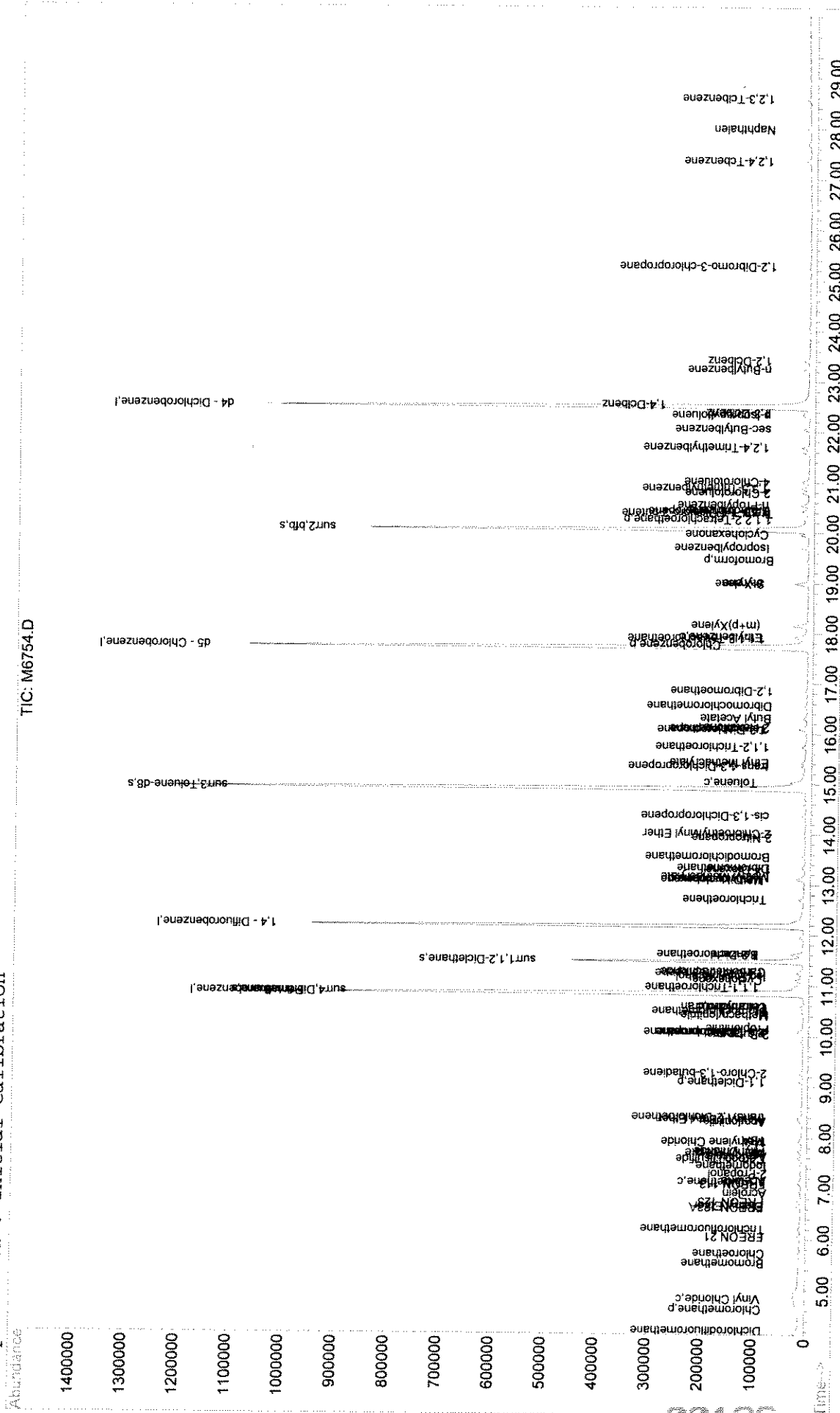
Ion	Exp%	Act%
180.00	100	100
182.00	94.90	85.80
0.00	0.00	0.00
0.00	0.00	0.00



Quantitation Report

Data File : J:\ACQDATA\MSVOA7\DATA\030509\M6754.D Vial: 2  
Acq On : 5 Mar 2009 4:58 pm Operator: B.Bush  
Sample : 0.5 Inst : MS #7  
Misc : Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Mar 6 10:29 2009 Quant Results File: WAT0305.RES

Method : J:\ACQDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
Title : 8260B.WATERS  
Last Update : Fri Mar 06 10:21:51 2009  
Response via : Initial Calibration



Data File : J:\ACQUDATA\MSVOA7\DATA\030509\M6755.D  
 Acq On : 5 Mar 2009 5:35 pm  
 Sample : 1.0  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Mar 6 10:29 2009

Vial: 3  
 Operator: B.Bush  
 Inst : MS #7  
 Multiplr: 1.00

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 06 10:21:51 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.83	168	658298	50.00	ppb	0.00
42) 1,4 - Difluorobenzene	12.17	114	1168286	50.00	ppb	0.00
63) d5 - Chlorobenzene	17.71	117	1105557	50.00	ppb	-0.01
86) d4 - Dichlorobenzene	22.49	152	519267	50.00	ppb	-0.01

System Monitoring Compounds

44) surr4, Dibrflmethane	10.85	113	446253	50.41	ppb	0.00
Spiked Amount	50.000	Range 89 - 115	Recovery	=	100.82%	
48) surr1, 1,2-Dicethane	11.47	65	419951	50.01	ppb	0.00
Spiked Amount	50.000	Range 80 - 120	Recovery	=	100.02%	
69) surr3, Toluene-d8	14.90	98	1285536	49.73	ppb	0.00
Spiked Amount	50.000	Range 88 - 124	Recovery	=	99.46%	
70) surr2, bfb	20.06	95	579002	49.77	ppb	0.00
Spiked Amount	50.000	Range 80 - 123	Recovery	=	99.54%	

BB  
3/17/09

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	4.20	85	7492	1.02	ppb	# 92
3) Chloromethane	4.63	50	11993	1.24	ppb	91
4) Vinyl Chloride	4.84	62	7869	1.08	ppb	95
5) Bromomethane	5.53	96	7211	1.08	ppb	90
6) Chloroethane	5.72	64	7566	1.24	ppb	94
7) FREON 21	6.04	67	20719	1.22	ppb	89
8) Trichlorofluoromethane	6.20	101	9172	0.96	ppb	97
9) Diethyl Ether	6.68	59	6666	1.02	ppb	92
10) FREON 123A	6.65	67	13266	1.18	ppb	95
11) FREON 123	6.73	83	12384	1.10	ppb	100
12) Acrolein	6.91	56	3906	4.46	ppb	84
13) FREON 113	7.10	101	7009	1.06	ppb	96
14) 1,1-Dicethene	7.15	96	6789	1.06	ppb	# 76
15) Acetone	7.16	43	3219	1.29	ppb	94
16) 2-Propanol	7.30	45	7436	18.71	ppb	# 85
17) Iodomethane	7.43	142	17095	1.19	ppb	95
18) Carbon Disulfide	7.59	76	29062	1.09	ppb	# 92
19) Acetonitrile	7.63	41	3724	4.20	ppb	# 20
20) Allyl Chloride	7.73	41	17763	1.13	ppb	99
21) Methyl Acetate	7.71	43	7752	0.90	ppb	96
22) Methylene Chloride	7.94	84	9489	1.10	ppb	82
23) TBA	7.98	59	11073	19.67	ppb	# 91
24) Acrylonitrile	8.31	53	12473	4.59	ppb	89
25) Methyl-t-Butyl Ether	8.36	73	21174	1.05	ppb	# 83
26) trans-1,2-Dichloroethene	8.40	96	9851	1.21	ppb	89
27) 1,1-Dicethane	9.11	63	19538	1.13	ppb	96
30) 2-Chloro-1,3-butadiene	9.27	53	13387	1.17	ppb	100
33) 2,2-Dichloropropane	10.10	77	12112	1.09	ppb	100
34) 2-Butanone	10.04	43	6021	1.27	ppb	# 75
35) cis-1,2-Dichloroethene	10.08	96	10283	1.13	ppb	93
36) Propionitrile	10.15	54	5302	5.35	ppb	# 85
37) Methacrylonitrile	10.42	67	2668	0.86	ppb	93
38) Bromochloromethane	10.50	128	4819	1.02	ppb	93
39) Chloroform	10.58	83	15720	1.03	ppb	89
40) Tetrahydrofuran	10.59	42	2753	1.05	ppb	95

(#) = qualifier out of range (m) = manual integration  
 M6755.D WAT0305.M Fri Mar 06 10:29:25 2009

Data File : J:\ACQUDATA\MSVOA7\DATA\030509\M6755.D

Vial: 3

Acq On : 5 Mar 2009 5:35 pm

Operator: B.Bush

Sample : 1.0

Inst : MS #7

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Mar 6 10:29 2009

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)

Title : 8260B.WATERS

Last Update : Fri Mar 06 10:21:51 2009

Response via : Initial Calibration

DataAcq Meth : WAT0305

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) 1,1,1-Trichloroethane	10.97	97	11850	1.09	ppb	# 81
43) Cyclohexane	11.11	56	15767	1.05	ppb	91
45) Carbontetrachloride	11.27	117	10770	1.16	ppb	84
46) 1,1-Dichloropropene	11.24	75	12298	1.05	ppb	94
47) Iso-Butyl Alcohol	11.18	43	6606	19.03	ppb	98
49) Benzene	11.62	78	39405	1.17	ppb	99
50) 1,2-Dichloroethane	11.60	62	10397	0.93	ppb	# 89
53) Trichloroethene	12.70	95	11454	1.25	ppb	88
54) Methylcyclohexane	13.09	55	11822	1.06	ppb	# 81
55) 1,2-Diclpropane	13.12	63	12273	1.06	ppb	# 79
56) Methyl Methacrylate	13.17	100	2442	1.14	ppb	97
57) 1,4-Dioxane	13.32	88	1233	20.62	ppb	# 36
58) Dibromomethane	13.34	93	5797	0.90	ppb	97
59) Bromodichloromethane	13.56	83	12997	1.03	ppb	99
60) 2-Nitropropane	13.94	43	4043	1.79	ppb	# 20
61) 2-Chloroethylvinyl Ether	14.01	63	4274	0.80	ppb	# 89
62) cis-1,3-Dichloropropene	14.36	75	16026	0.96	ppb	# 91
64) 4-Methyl-2-Pentanone	14.57	43	11378	1.05	ppb	# 78
65) Toluene	15.04	91	38346	1.14	ppb	89
66) trans-1,3-Dichloropropene	15.36	75	14646	1.02	ppb	91
67) Ethyl Methacrylate	15.43	69	13698	1.09	ppb	96
68) 1,1,2-Trichloroethane	15.74	83	7412	1.03	ppb	89
71) Tetrachloroethene	16.11	166	8715	1.10	ppb	# 91
72) 2-Hexanone	16.13	43	7230	0.94	ppb	92
73) 1,3-Dichloropropene	16.09	76	14440	0.96	ppb	90
74) Butyl Acetate	16.29	43	19469	1.00	ppb	# 91
75) Dibromochloromethane	16.56	129	9544	0.96	ppb	92
76) 1,2-Dibromoethane	16.85	107	9469	1.05	ppb	# 72
77) Chlorobenzene	17.77	112	26246	1.12	ppb	# 86
78) 1,1,1,2-Tetrachloroethane	17.90	131	9648	1.09	ppb	97
79) Ethylbenzene	17.93	91	43012	1.12	ppb	# 87
80) (m+p)Xylene	18.16	106	32405	2.31	ppb	99
81) o-Xylene	18.98	106	15993	1.13	ppb	94
82) Styrene	18.99	104	25050	1.08	ppb	96
83) Bromoform	19.45	173	5720	0.95	ppb	# 82
84) Isopropylbenzene	19.70	105	37678	1.15	ppb	93
85) Cyclohexanone	19.97	55	30438	21.24	ppb	89
87) 1,1,2,2-Tetrachloroethane	20.26	83	11087	1.02	ppb	95
88) Trans-1,4-Dichloro-2-buten	20.37	53	2979	1.24	ppb	73
89) 1,2,3-Trichloropropene	20.41	110	3151	1.16	ppb	94
90) n-Propylbenzene	20.54	91	50047	1.20	ppb	97
91) Bromobenzene	20.43	156	10795	1.08	ppb	90
92) 1,3,5-Trimethylbenzene	20.88	105	29836	1.16	ppb	97
93) 2-Chlorotoluene	20.81	91	31066	1.17	ppb	# 85
94) 4-Chlorotoluene	21.01	91	31553	1.14	ppb	90
95) tert-Butylbenzene	21.60	119	22877	1.10	ppb	96
96) 1,2,4-Trimethylbenzene	21.68	105	30327	1.17	ppb	96
97) sec-Butylbenzene	22.06	105	34703	1.16	ppb	# 89
98) p-Isopropyltoluene	22.33	119	26543	1.08	ppb	93
99) 1,3-Dclbenz	22.38	146	19530	1.16	ppb	# 91

(#)= qualifier out of range (m) = manual integration

M6755.D WAT0305.M

Fri Mar 06 10:29:26 2009

00138

Data File : J:\ACQUDATA\MSVOA7\DATA\030509\M6755.D Vial: 3  
 Acq On : 5 Mar 2009 5:35 pm Operator: B.Bush  
 Sample : 1.0 Inst : MS #7  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Mar 6 10:29 2009 Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 06 10:21:51 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

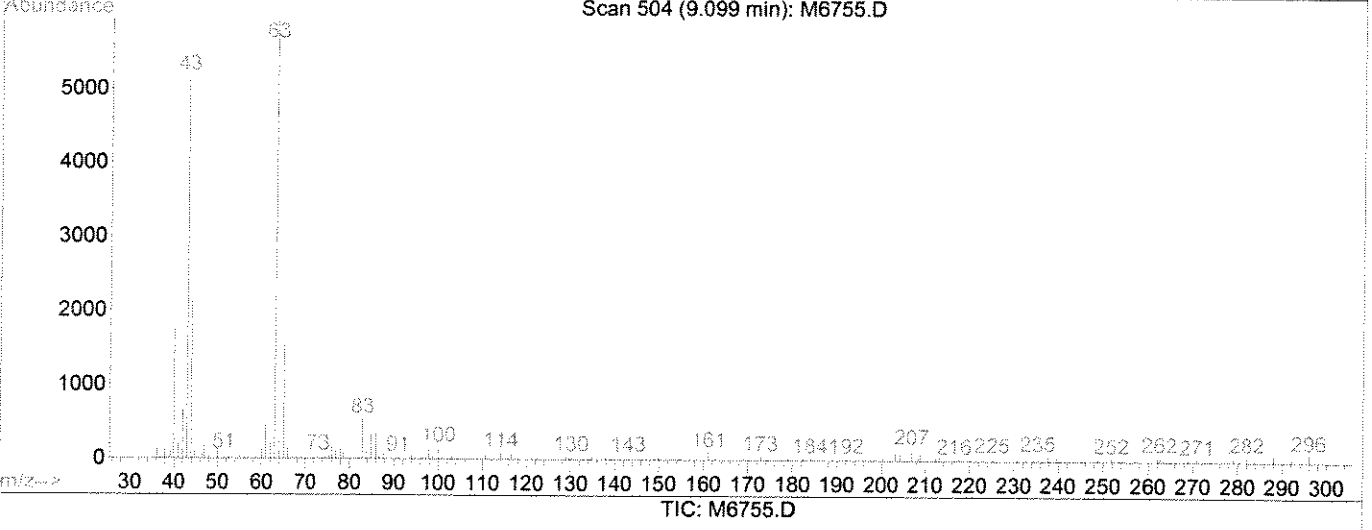
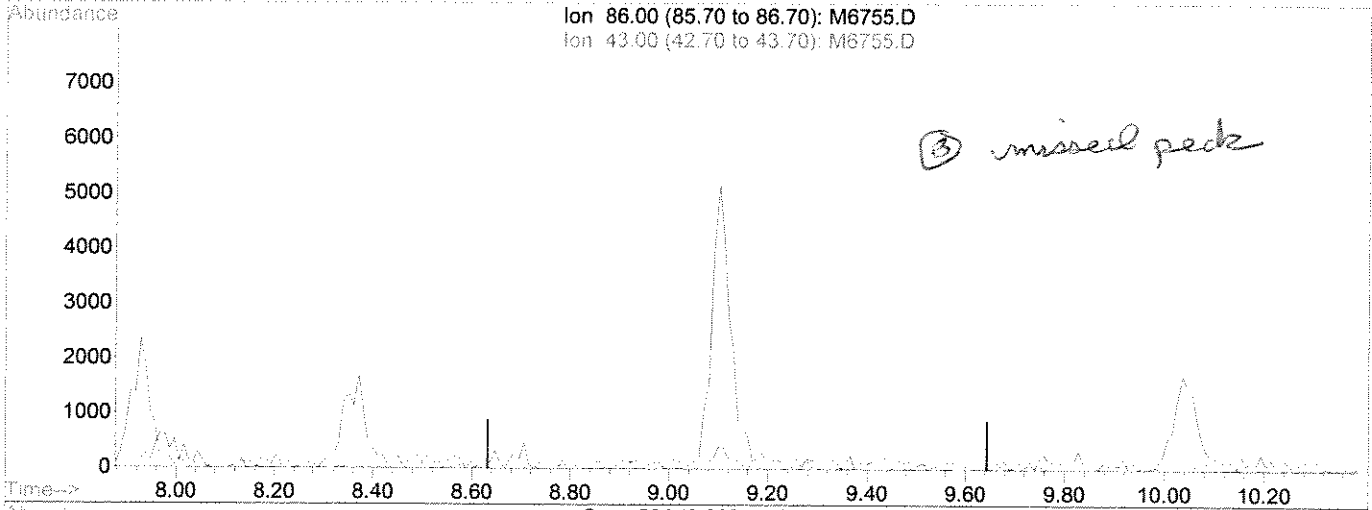
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
100) 1,4-Dclbenz	22.55	146	20615	1.18	ppb	97
101) n-Butylbenzene	23.23	91	26122	1.09	ppb #	92
102) 1,2-Dclbenz	23.42	146	18606	1.12	ppb #	84
103) 1,2-Dibromo-3-chloropropan	25.27	157	1592	0.89	ppb #	62
105) 1,2,4-Tcbenzene	27.35	180	8663	1.10	ppb	85
106) Hexachlorobt	27.72	225	3527	Below	Cal #	81
107) Naphthalen	28.00	128	22195	1.06	ppb	97
108) 1,2,3-Tclbenzene	28.57	180	7841	1.11	ppb #	79
28) vinyl acetate	9.10		<del>1522</del> 1233	<del>0.72</del> 0.44	ppb	83

(#) = qualifier out of range (m) = manual integration  
 M6755.D WAT0305.M Fri Mar 06 10:29:26 2009

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA7\DATA\030509\M6755.D Vial: 3  
Acq On : 5 Mar 2009 5:35 pm Operator: B.Bush  
Sample : 1.0 Inst : MS #7  
Misc : Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Mar 6 10:29 2009 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
Title : 8260B.WATERS  
Last Update : Fri Mar 06 10:41:46 2009  
Response via : Multiple Level Calibration



(28) Vinyl Acetate

9.10min 0.00ppb

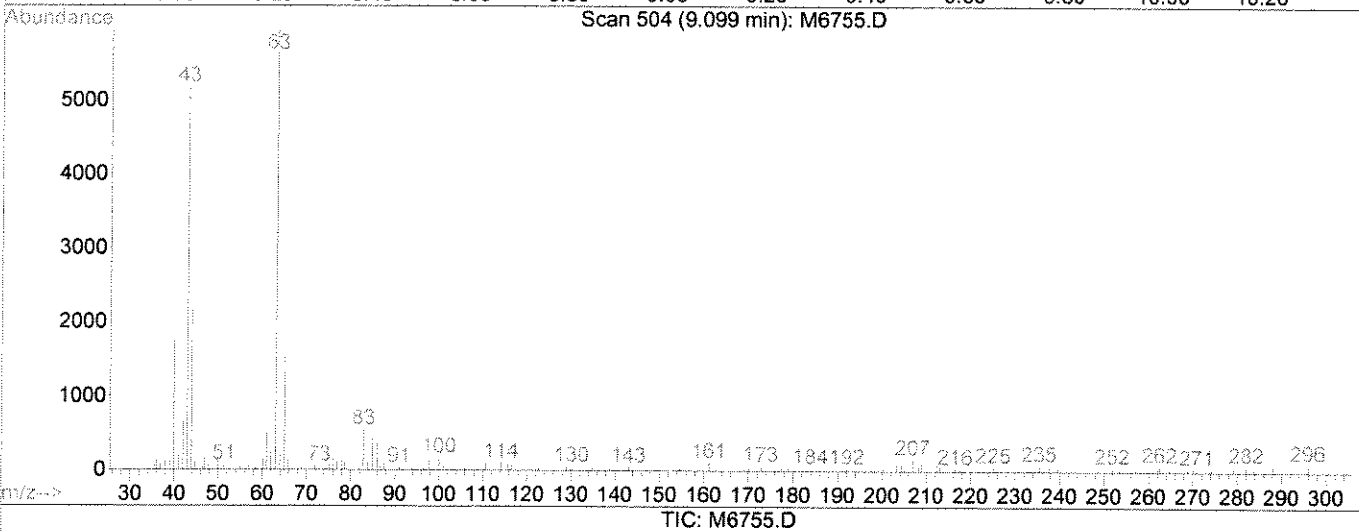
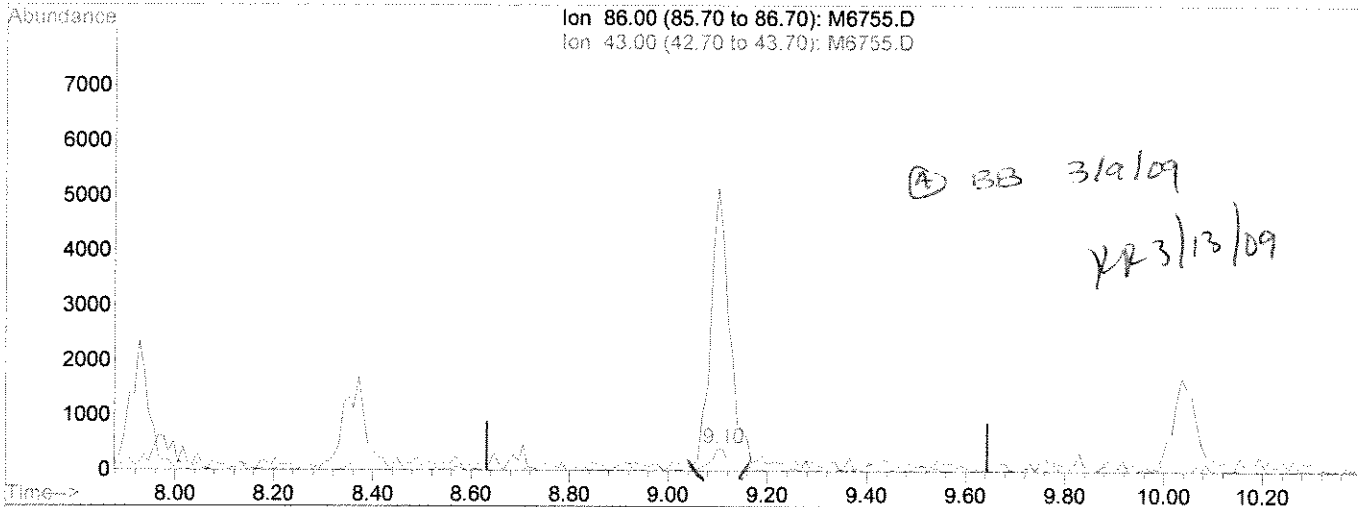
response 0

Ion	Exp%	Act%
86.00	100	0.00
43.00	1753.70	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA7\DATA\030509\M6755.D Vial: 3  
 Acq On : 5 Mar 2009 5:35 pm Operator: B.Bush  
 Sample : 1.0 Inst : MS #7  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Mar 6 11:42 2009 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 06 11:01:07 2009  
 Response via : Multiple Level Calibration



(28) Vinyl Acetate

9.10min 0.44ppb m

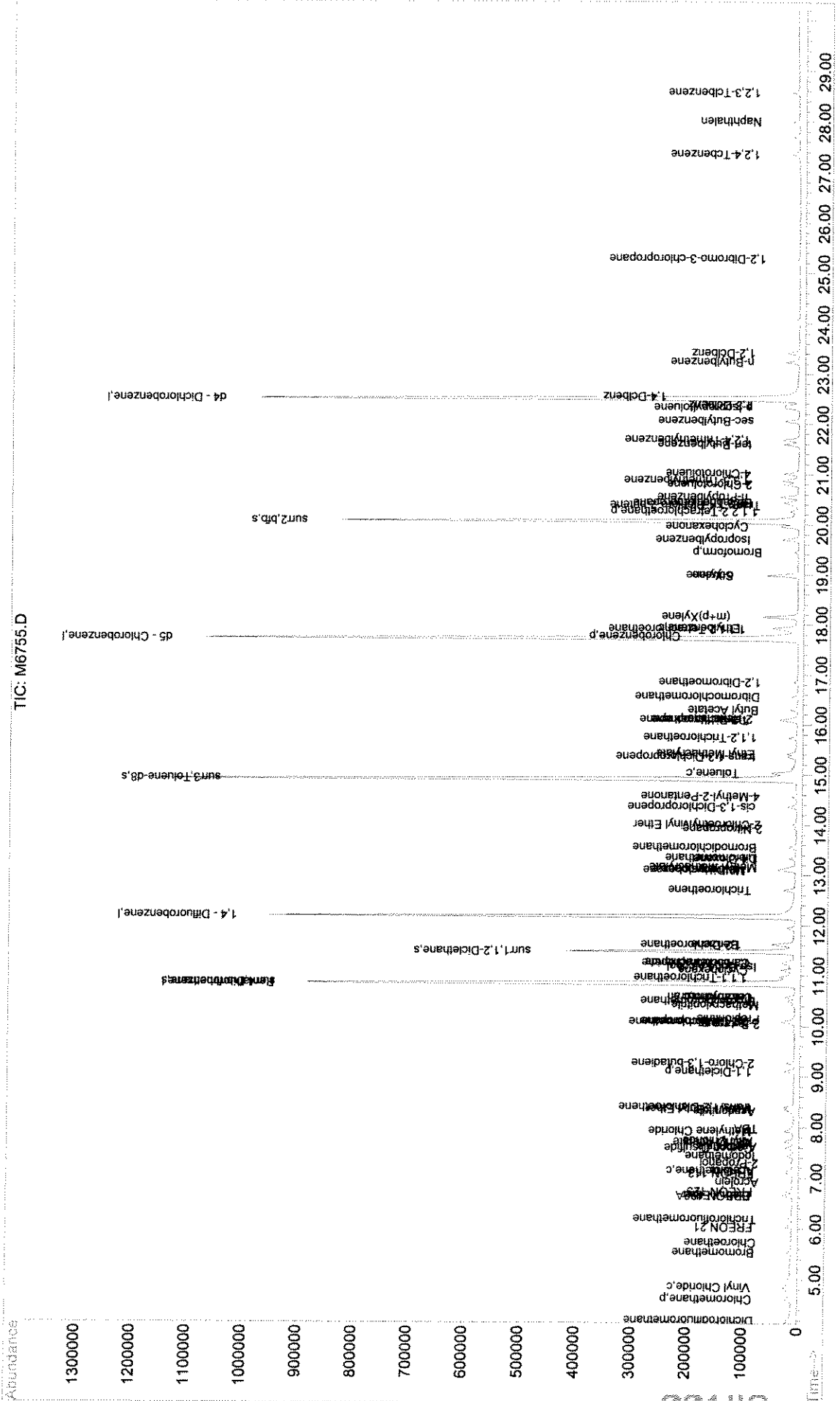
response 1233

Ion	Exp%	Act%
86.00	100	100
43.00	1753.70	1448.46
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : J:\ACQDATA\MSVOA7\DATA\030509\M6755.D Vial: 3  
Acq On : 5 Mar 2009 5:35 pm Operator: B. Bush  
Sample : 1.0 Inst : MS #7  
Misc : Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Mar 6 10:29 2009 Quant Results File: WAT0305.RES

Method : J:\ACQDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
Title : 8260B.WATERS  
Last Update : Fri Mar 06 10:21:51 2009  
Response via : Initial Calibration



Data File : J:\ACQUDATA\MSVOA7\DATA\030509\M6756.D Vial: 4  
 Acq On : 5 Mar 2009 6:12 pm Operator: B.Bush  
 Sample : 2.0 Inst : MS #7  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Mar 6 10:29 2009 Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 06 10:21:51 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.83	168	678716	50.00	ppb	0.00
42) 1,4 - Difluorobenzene	12.18	114	1198101	50.00	ppb	0.00
63) d5 - Chlorobenzene	17.72	117	1111433	50.00	ppb	0.00
86) d4 - Dichlorobenzene	22.50	152	530376	50.00	ppb	0.00

System Monitoring Compounds

44) surr4,Dibrflmethane	10.86	113	553625	60.99	ppb	0.00
Spiked Amount	50.000	Range 89 - 115	Recovery	=	121.98%#	
48) surr1,1,2-Dicethane	11.48	65	531786	61.75	ppb	0.00
Spiked Amount	50.000	Range 80 - 120	Recovery	=	123.50%#	
69) surr3,Toluene-d8	14.90	98	1591277	61.24	ppb	0.00
Spiked Amount	50.000	Range 88 - 124	Recovery	=	122.48%	
70) surr2,bfb	20.06	95	694213	59.36	ppb	0.00
Spiked Amount	50.000	Range 80 - 123	Recovery	=	118.72%	

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3/17/09

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	4.22	85	14476	1.91	ppb	# 90
3) Chloromethane	4.62	50	16857	1.69	ppb	# 85
4) Vinyl Chloride	4.85	62	13329	1.77	ppb	100
5) Bromomethane	5.54	96	14086	2.04	ppb	# 73
6) Chloroethane	5.72	64	12864	2.04	ppb	99
7) FREON 21	6.05	67	36138	2.07	ppb	100
8) Trichlorofluoromethane	6.21	101	21121	2.14	ppb	94
9) Diethyl Ether	6.67	59	13406	1.98	ppb	84
10) FREON 123A	6.65	67	25803	2.23	ppb	93
11) FREON 123	6.74	83	23812	2.06	ppb	99
12) Acrolein	6.92	56	7753	8.59	ppb	# 65
13) FREON 113	7.09	101	13857	2.04	ppb	# 70
14) 1,1-Dicethene	7.14	96	13694	2.08	ppb	91
15) Acetone	7.15	43	5211	2.02	ppb	95
16) 2-Propanol	7.30	45	16867	41.16	ppb	98
17) Iodomethane	7.43	142	28200	1.90	ppb	99
18) Carbon Disulfide	7.60	76	56843	2.08	ppb	96
19) Acetonitrile	7.63	41	8900	9.74	ppb	# 57
20) Allyl Chloride	7.74	41	27564	1.70	ppb	86
21) Methyl Acetate	7.70	43	14879	1.68	ppb	97
22) Methylene Chloride	7.93	84	17091	1.92	ppb	92
23) TBA	7.98	59	22483	38.73	ppb	# 84
24) Acrylonitrile	8.31	53	25574	9.12	ppb	93
25) Methyl-t-Butyl Ether	8.37	73	39064	1.88	ppb	97
26) trans-1,2-Dichloroethene	8.41	96	15688	1.86	ppb	95
27) 1,1-Dicethane	9.12	63	35915	2.01	ppb	100
28) Vinyl Acetate	9.10	86	2113 1522 1.369	0.72	ppb	# 53 1
30) 2-Chloro-1,3-butadiene	9.27	53	23270	1.98	ppb	93
33) 2,2-Dichloropropane	10.10	77	21986	1.92	ppb	91
34) 2-Butanone	10.04	43	9087	1.86	ppb	94
35) cis-1,2-Dichloroethene	10.08	96	18029	1.92	ppb	87
36) Propionitrile	10.16	54	9335	9.14	ppb	# 82
37) Methacrylonitrile	10.42	67	5048	1.58	ppb	87
38) Bromochloromethane	10.50	128	9178	1.89	ppb	87
39) Chloroform	10.58	83	30943	1.96	ppb	94

(#) = qualifier out of range (m) = manual integration  
 M6756.D WAT0305.M Fri Mar 06 10:29:33 2009



Data File : J:\ACQUDATA\MSVOA7\DATA\030509\M6756.D

Vial: 4

Acq On : 5 Mar 2009 6:12 pm

Operator: B.Bush

Sample : 2.0

Inst : MS #7

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Mar 6 10:29 2009

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)

Title : 8260B.WATERS

Last Update : Fri Mar 06 10:21:51 2009

Response via : Initial Calibration

DataAcq Meth : WAT0305

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
40) Tetrahydrofuran	10.58	42	5466	2.03	ppb	98
41) 1,1,1-Trichloroethane	10.98	97	22569	2.01	ppb #	75
43) Cyclohexane	11.11	56	31880	2.08	ppb	91
45) Carbontetrachloride	11.28	117	19309	2.03	ppb	92
46) 1,1-Dichloropropene	11.24	75	25947	2.16	ppb	97
47) Iso-Butyl Alcohol	11.19	43	13914	39.09	ppb	97
49) Benzene	11.63	78	71226	2.05	ppb	97
50) 1,2-Dichloroethane	11.60	62	23064	2.01	ppb #	94
52) N-Heptane	11.94	43	24068	1.64	ppb	88
53) Trichloroethene	12.71	95	18790	2.00	ppb	94
54) Methylcyclohexane	13.09	55	25241	2.20	ppb	95
55) 1,2-Diclpropane	13.12	63	23282	1.95	ppb	97
56) Methyl Methacrylate	13.16	100	4107	1.86	ppb	98
57) 1,4-Dioxane	13.28	88	2748	44.82	ppb #	72
58) Dibromomethane	13.34	93	12598	1.91	ppb	93
59) Bromodichloromethane	13.57	83	25190	1.95	ppb	95
60) 2-Nitropropane	13.92	43	9695	4.20	ppb #	90
61) 2-Chloroethylvinyl Ether	14.01	63	10089	1.83	ppb	100
62) cis-1,3-Dichloropropene	14.36	75	32073	1.86	ppb	97
64) 4-Methyl-2-Pentanone	14.57	43	20581	1.89	ppb	95
65) Toluene	15.04	91	69181	2.05	ppb	94
66) trans-1,3-Dichloropropene	15.35	75	27763	1.92	ppb	97
67) Ethyl Methacrylate	15.41	69	25184	1.99	ppb	92
68) 1,1,2-Trichloroethane	15.74	83	13903	1.92	ppb	97
71) Tetrachloroethene	16.10	166	17000	2.13	ppb	93
72) 2-Hexanone	16.13	43	15442	1.99	ppb	92
73) 1,3-Dichloropropene	16.08	76	30801	2.04	ppb	97
74) Butyl Acetate	16.30	43	36560	1.86	ppb #	95
75) Dibromochloromethane	16.56	129	20070	2.02	ppb	97
76) 1,2-Dibromoethane	16.85	107	17871	1.97	ppb	95
77) Chlorobenzene	17.78	112	47348	2.01	ppb	91
78) 1,1,1,2-Tetrachloroethane	17.91	131	16741	1.88	ppb	88
79) Ethylbenzene	17.94	91	79940	2.06	ppb	97
80) (m+p)Xylene	18.15	106	57118	4.04	ppb	96
81) o-Xylene	18.98	106	27664	1.94	ppb	96
82) Styrene	18.99	104	48363	2.07	ppb	93
83) Bromoform	19.44	173	10120	1.67	ppb	94
84) Isopropylbenzene	19.70	105	67005	2.03	ppb	100
85) Cyclohexanone	19.97	55	56294	39.08	ppb	99
87) 1,1,2,2-Tetrachloroethane	20.26	83	22039	1.99	ppb #	77
88) Trans-1,4-Dichloro-2-buten	20.38	53	4302	1.75	ppb	98
89) 1,2,3-Trichloropropene	20.42	110	5444	1.96	ppb #	76
90) n-Propylbenzene	20.55	91	87078	2.04	ppb	93
91) Bromobenzene	20.45	156	20243	1.99	ppb	89
92) 1,3,5-Trimethylbenzene	20.87	105	54301	2.06	ppb	99
93) 2-Chlorotoluene	20.80	91	54879	2.03	ppb	97
94) 4-Chlorotoluene	21.02	91	55124	1.96	ppb	96
95) tert-Butylbenzene	21.60	119	43952	2.06	ppb	97
96) 1,2,4-Trimethylbenzene	21.69	105	53799	2.02	ppb	95
97) sec-Butylbenzene	22.05	105	65914	2.16	ppb	99

(#)=qualifier out of range (m)=manual integration

M6756.D WAT0305.M

Fri Mar 06 10:29:34 2009

00144

Data File : J:\ACQUDATA\MSVOA7\DATA\030509\M6756.D Vial: 4  
 Acq On : 5 Mar 2009 6:12 pm Operator: B.Bush  
 Sample : 2.0 Inst : MS #7  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Mar 6 10:29 2009 Quant Results File: WAT0305.RES

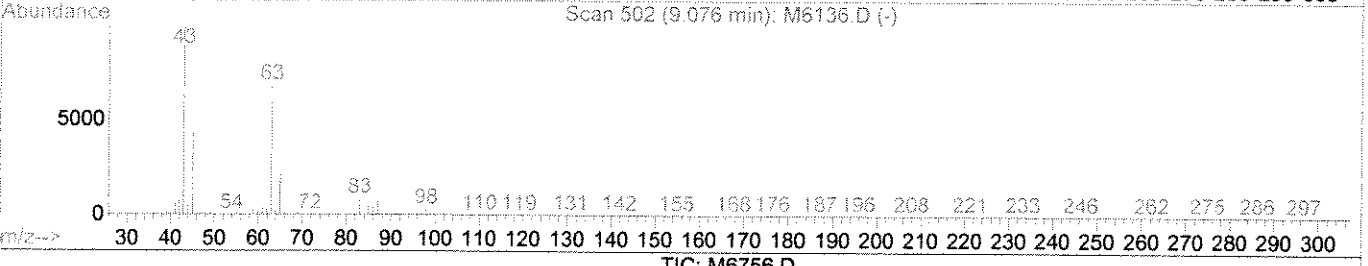
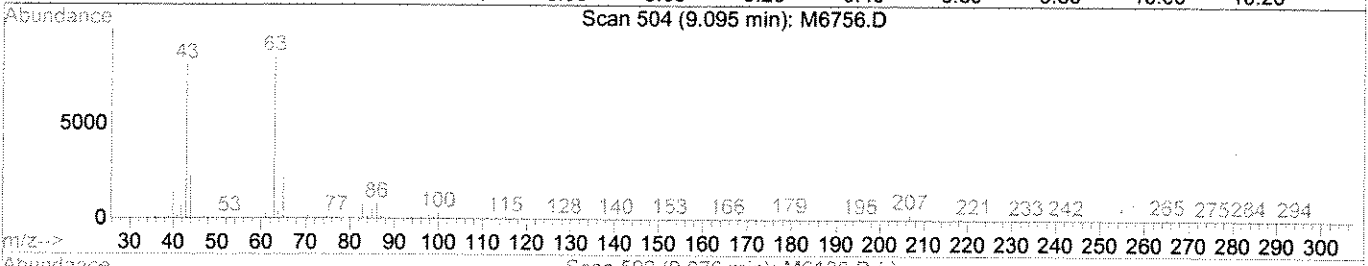
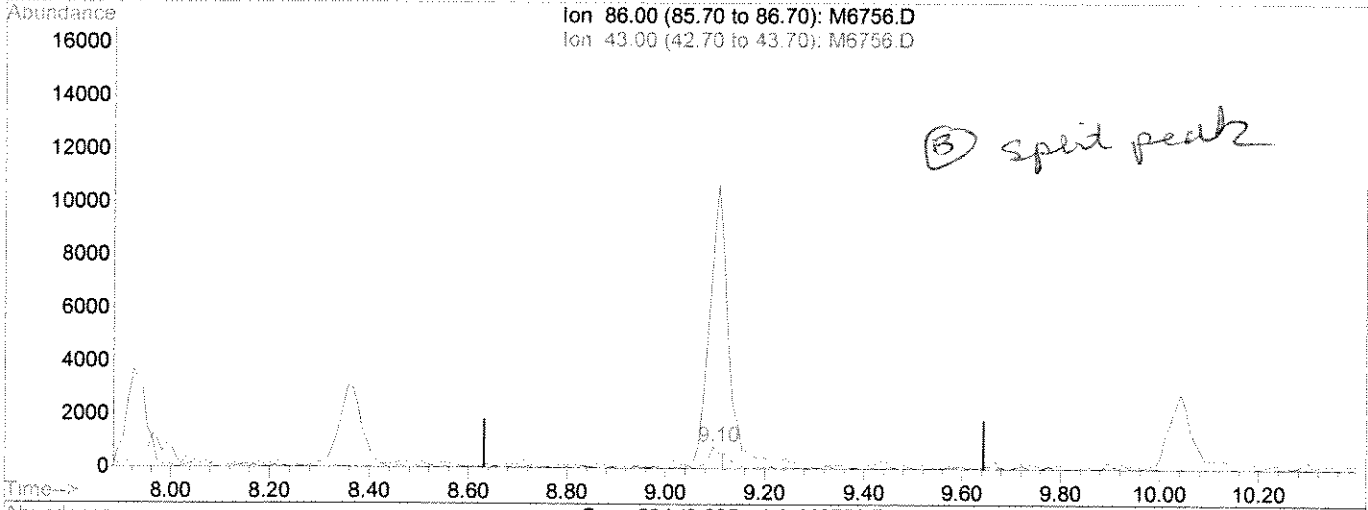
Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 06 10:21:51 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
98) p-Isopropyltoluene	22.32	119	51859	2.06	ppb	94
99) 1,3-Dclbenz	22.38	146	34769	2.02	ppb	96
100) 1,4-Dclbenz	22.55	146	34876	1.95	ppb	98
101) n-Butylbenzene	23.24	91	49894	2.04	ppb	98
102) 1,2-Dclbenz	23.41	146	32387	1.91	ppb	94
103) 1,2-Dibromo-3-chloropropan	25.29	157	3363	1.83	ppb #	76
105) 1,2,4-Tcbenzene	27.38	180	15268	1.90	ppb	84
106) Hexachlorobt	27.71	225	7289	1.21	ppb #	73
107) Naphthalen	28.00	128	39636	1.86	ppb	99
108) 1,2,3-Tclbenzene	28.59	180	13775	1.91	ppb	86

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA7\DATA\030509\M6756.D Vial: 4  
Acq On : 5 Mar 2009 6:12 pm Operator: B.Bush  
Sample : 2.0 Inst : MS #7  
Misc : Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Mar 6 10:29 2009 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
Title : 8260B.WATERS  
Last Update : Fri Mar 06 10:45:11 2009  
Response via : Multiple Level Calibration



TIC: M6756.D

(28) Vinyl Acetate

9.10min 0.72ppb

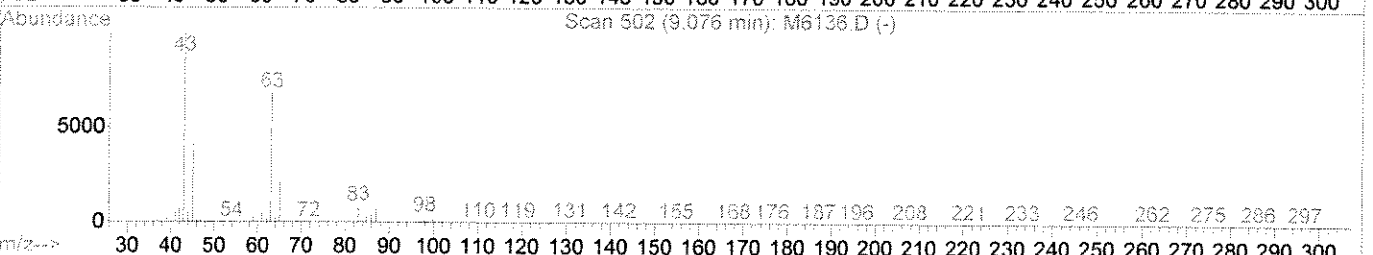
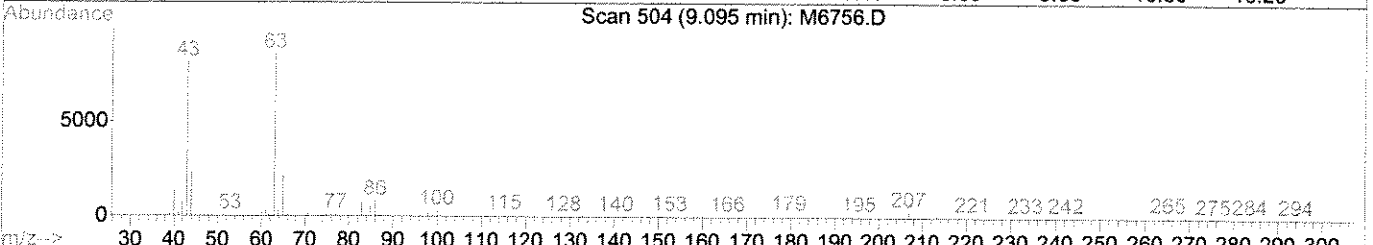
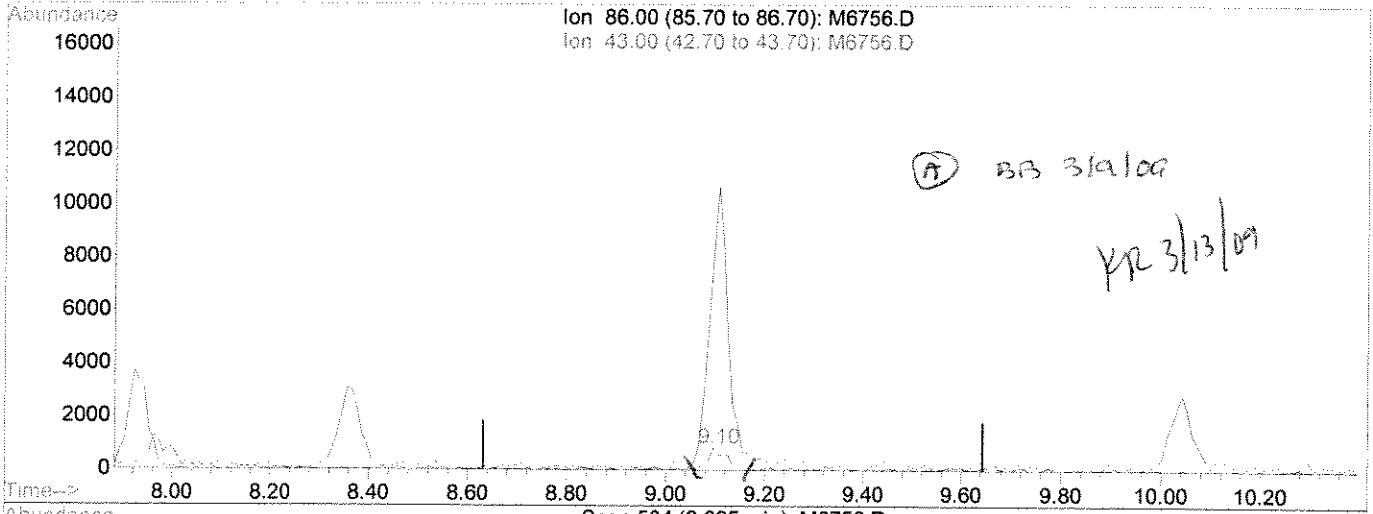
response 1522

Ion	Exp%	Act%
86.00	100	100
43.00	1753.70	985.77#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA7\DATA\030509\M6756.D Vial: 4  
 Acq On : 5 Mar 2009 6:12 pm Operator: B.Bush  
 Sample : 2.0 Inst : MS #7  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Mar 6 10:46 2009 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 06 10:45:11 2009  
 Response via : Multiple Level Calibration



TIC: M6756.D

(28) Vinyl Acetate

9.10min 1.39ppb m

response 2113

Ion	Exp%	Act%
86.00	100	100
43.00	1753.70	985.77#
0.00	0.00	0.00
0.00	0.00	0.00

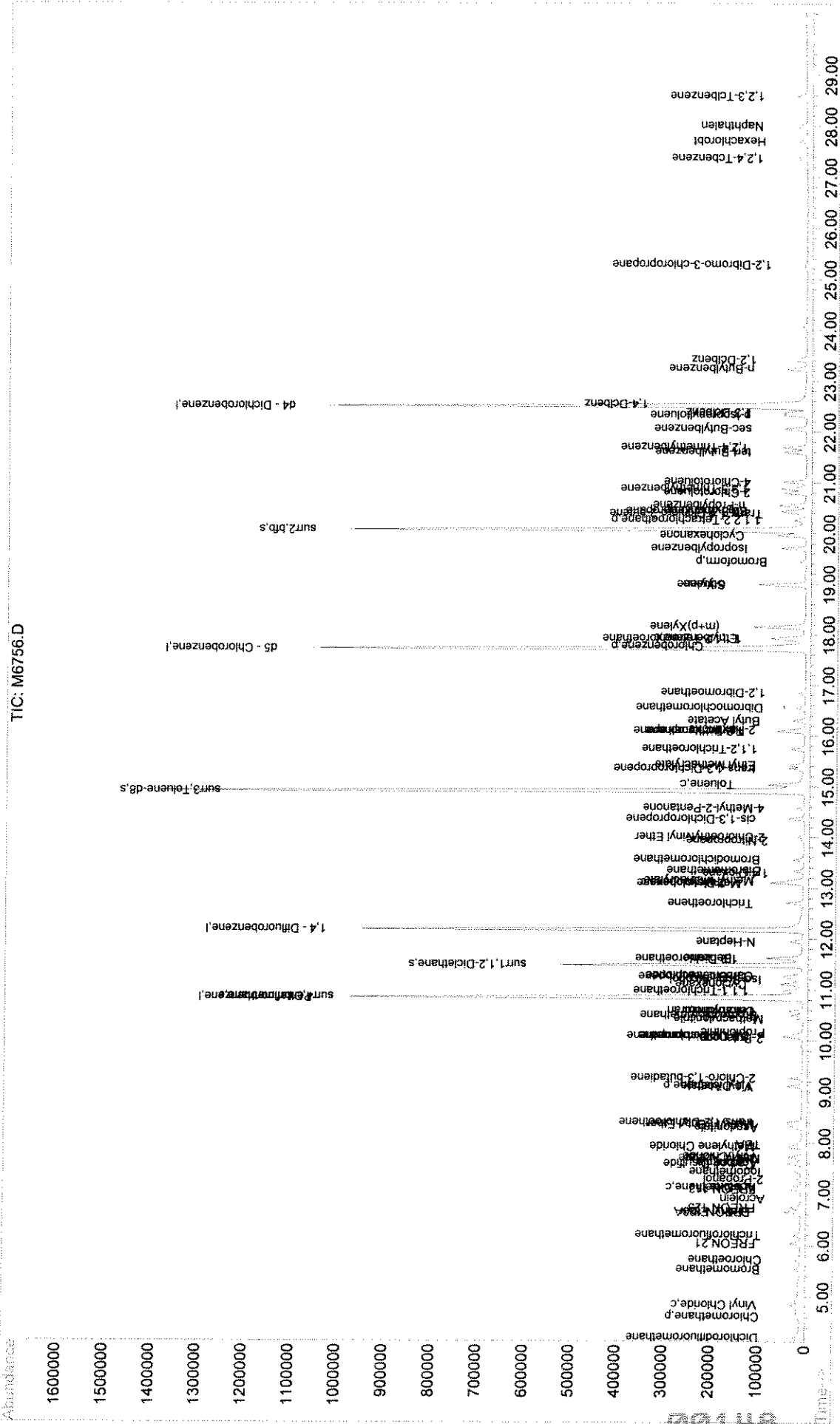
Quantitation Report

Data File : J:\ACQDATA\MSVOA7\DATA\030509\M6756.D  
 Acq On : 5 Mar 2009 6:12 pm  
 Sample : 2.0  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Mar 6 10:29 2009

Vial: 4  
 Operator: B.Bush  
 Inst : MS #7  
 Multiplr: 1.00

Quant Results File: WAT0305.RES

Method : J:\ACQDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 06 10:21:51 2009  
 Response via : Initial Calibration



Data File : J:\ACQUDATA\MSVOA7\DATA\030509\M6757.D  
 Acq On : 5 Mar 2009 6:49 pm  
 Sample : 5.0  
 Misc :

Vial: 5  
 Operator: B.Bush  
 Inst : MS #7  
 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Mar 6 10:29 2009

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)

Title : 8260B.WATERS  
 Last Update : Fri Mar 06 10:21:51 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.83	168	645936	50.00	ppb	0.00
42) 1,4 - Difluorobenzene	12.18	114	1135005	50.00	ppb	0.00
63) d5 - Chlorobenzene	17.72	117	1079414	50.00	ppb	0.00
86) d4 - Dichlorobenzene	22.50	152	508540	50.00	ppb	0.00

System Monitoring Compounds

44) surr4, Dibromomethane	10.86	113	623115	72.46	ppb	0.00
Spiked Amount	50.000	Range 89 - 115	Recovery	=	144.92%#	
48) surr1, 1,2-Dichloroethane	11.48	65	585978	71.82	ppb	0.00
Spiked Amount	50.000	Range 80 - 120	Recovery	=	143.64%#	
69) surr3, Toluene-d8	14.90	98	1754464	69.52	ppb	0.00
Spiked Amount	50.000	Range 88 - 124	Recovery	=	139.04%#	
70) surr2, bfb	20.06	95	801686	70.58	ppb	0.00
Spiked Amount	50.000	Range 80 - 123	Recovery	=	141.16%#	

BB  
3/17/09

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	4.22	85	28471	3.95	ppb	# 92
3) Chloromethane	4.62	50	41921	4.40	ppb	99
4) Vinyl Chloride	4.85	62	31544	4.41	ppb	96
5) Bromomethane	5.53	96	27261	4.16	ppb	100
6) Chloroethane	5.72	64	27893	4.64	ppb	96
7) FREON 21	6.05	67	86139	5.18	ppb	96
8) Trichlorofluoromethane	6.20	101	46485	4.95	ppb	88
9) Diethyl Ether	6.66	59	29947	4.65	ppb	98
10) FREON 123A	6.64	67	56542	5.14	ppb	92
11) FREON 123	6.74	83	59801	5.44	ppb	99
12) Acrolein	6.91	56	20401	23.74	ppb	93
13) FREON 113	7.09	101	35660	5.51	ppb	96
14) 1,1-Dichloroethene	7.13	96	30688	4.89	ppb	92
15) Acetone	7.15	43	12872	5.24	ppb	99
16) 2-Propanol	7.29	45	39006	100.01	ppb	99
17) Iodomethane	7.44	142	68887	4.89	ppb	99
18) Carbon Disulfide	7.60	76	129918	4.99	ppb	99
19) Acetonitrile	7.64	41	21691	24.95	ppb	# 86
20) Allyl Chloride	7.72	41	71192	4.62	ppb	98
21) Methyl Acetate	7.70	43	41519	4.92	ppb	98
22) Methylene Chloride	7.93	84	40640	4.79	ppb	98
23) TBA	7.97	59	54717	99.04	ppb	94
24) Acrylonitrile	8.31	53	65012	24.36	ppb	96
25) Methyl-t-Butyl Ether	8.36	73	95638	4.83	ppb	98
26) trans-1,2-Dichloroethene	8.40	96	37394	4.67	ppb	96
27) 1,1-Dichloroethane	9.10	63	80121	4.71	ppb	99
28) Vinyl Acetate	9.09	86	3838	3.56	ppb	87
30) 2-Chloro-1,3-butadiene	9.27	53	54299	4.85	ppb	98
33) 2,2-Dichloropropane	10.11	77	51914	4.77	ppb	95
34) 2-Butanone	10.03	43	21199	4.57	ppb	# 90
35) cis-1,2-Dichloroethene	10.08	96	43683	4.88	ppb	98
36) Propionitrile	10.27	54	24556	1629	ppb	93
37) Methacrylonitrile	10.42	67	14331	4.71	ppb	94
38) Bromochloromethane	10.50	128	21023	4.55	ppb	96
39) Chloroform	10.57	83	73346	4.89	ppb	94

(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\MSVOA7\DATA\030509\M6757.D  
 Acq On : 5 Mar 2009 6:49 pm  
 Sample : 5.0  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Mar 6 10:29 2009

Vial: 5  
 Operator: B.Bush  
 Inst : MS #7  
 Multiplr: 1.00

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 06 10:21:51 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
40) Tetrahydrofuran	10.57	42	11905	4.65	ppb	94
41) 1,1,1-Trichloroethane	10.98	97	53900	5.04	ppb	93
43) Cyclohexane	11.11	56	74252	5.11	ppb	96
45) Carbontetrachloride	11.28	117	45524	5.05	ppb	100
46) 1,1-Dichloropropene	11.24	75	60823	5.34	ppb	99
47) Iso-Butyl Alcohol	11.19	43	33889	100.51	ppb	90
49) Benzene	11.62	78	168378	5.12	ppb	99
50) 1,2-Dichloroethane	11.61	62	56832	5.22	ppb	100
52) N-Heptane	11.94	43	52089	5.49	ppb	92
53) Trichloroethene	12.71	95	43415	4.89	ppb	99
54) Methylcyclohexane	13.10	55	58502	5.38	ppb	97
55) 1,2-Diclpropane	13.12	63	56767	5.02	ppb	97
56) Methyl Methacrylate	13.15	100	9678	4.63	ppb	96
57) 1,4-Dioxane	13.29	88	6302	108.49	ppb	84
58) Dibromomethane	13.33	93	31390	5.02	ppb	# 81
59) Bromodichloromethane	13.56	83	59213	4.84	ppb	93
60) 2-Nitropropane	13.93	43	20870	9.53	ppb	# 85
61) 2-Chloroethylvinyl Ether	14.00	63	23274	4.47	ppb	92
62) cis-1,3-Dichloropropene	14.37	75	83287	5.11	ppb	97
64) 4-Methyl-2-Pentanone	14.57	43	54210	5.13	ppb	96
65) Toluene	15.04	91	170479	5.20	ppb	98
66) trans-1,3-Dichloropropene	15.35	75	69618	4.95	ppb	# 90
67) Ethyl Methacrylate	15.42	69	61121	4.96	ppb	# 89
68) 1,1,2-Trichloroethane	15.74	83	34569	4.92	ppb	97
71) Tetrachloroethene	16.10	166	40674	5.25	ppb	95
72) 2-Hexanone	16.12	43	37590	4.99	ppb	96
73) 1,3-Dichloropropene	16.08	76	75002	5.12	ppb	93
74) Butyl Acetate	16.30	43	92897	4.88	ppb	97
75) Dibromochloromethane	16.55	129	45012	4.66	ppb	95
76) 1,2-Dibromoethane	16.84	107	43052	4.88	ppb	85
77) Chlorobenzene	17.79	112	111742	4.89	ppb	97
78) 1,1,1,2-Tetrachloroethane	17.90	131	41950	4.86	ppb	98
79) Ethylbenzene	17.93	91	203997	5.42	ppb	100
80) (m+p)Xylene	18.15	106	146018	10.65	ppb	98
81) o-Xylene	18.98	106	73494	5.31	ppb	97
82) Styrene	19.00	104	116284	5.12	ppb	97
83) Bromoform	19.44	173	28865	4.91	ppb	93
84) Isopropylbenzene	19.71	105	169353	5.28	ppb	94
85) Cyclohexanone	19.96	55	149784	107.06	ppb	99
87) 1,1,2,2-Tetrachloroethane	20.27	83	52207	4.91	ppb	99
88) Trans-1,4-Dichloro-2-buten	20.37	53	10615	4.52	ppb	85
89) 1,2,3-Trichloropropene	20.41	110	12799	4.80	ppb	95
90) n-Propylbenzene	20.55	91	214191	5.23	ppb	99
91) Bromobenzene	20.44	156	50697	5.20	ppb	90
92) 1,3,5-Trimethylbenzene	20.88	105	131112	5.19	ppb	99
93) 2-Chlorotoluene	20.80	91	129720	4.99	ppb	99
94) 4-Chlorotoluene	21.01	91	137713	5.10	ppb	99
95) tert-Butylbenzene	21.60	119	112195	5.49	ppb	98
96) 1,2,4-Trimethylbenzene	21.69	105	130191	5.11	ppb	96
97) sec-Butylbenzene	22.05	105	158208	5.40	ppb	93

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : J:\ACQUDATA\MSVOA7\DATA\030509\M6757.D Vial: 5  
 Acq On : 5 Mar 2009 6:49 pm Operator: B.Bush  
 Sample : 5.0 Inst : MS #7  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Mar 6 10:29 2009 Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 06 10:21:51 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

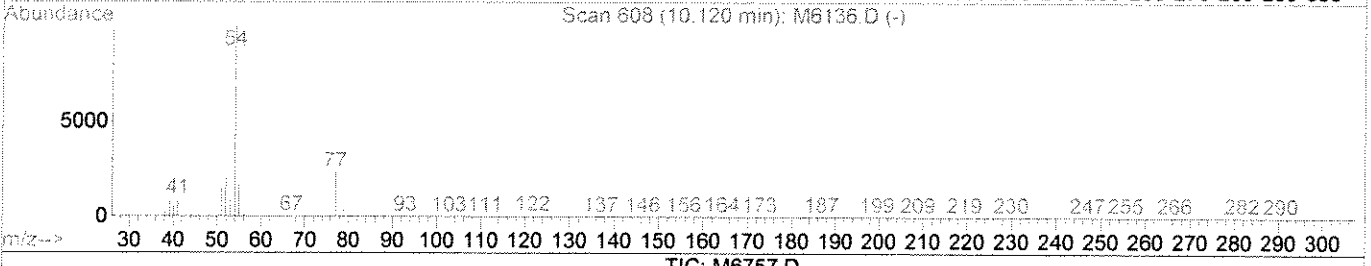
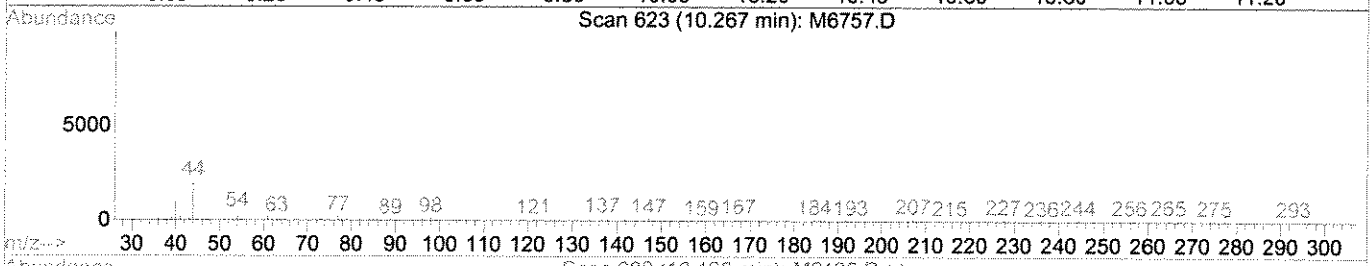
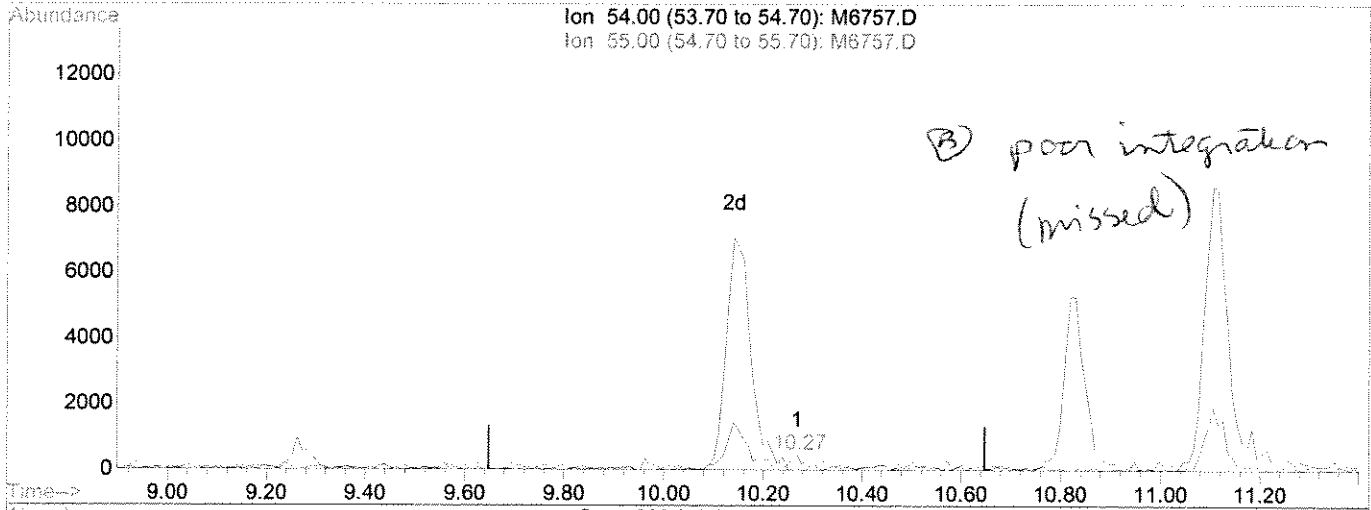
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
98) p-Isopropyltoluene	22.32	119	125004	5.18	ppb	97
99) 1,3-Dclbenz	22.38	146	84118	5.09	ppb	96
100) 1,4-Dclbenz	22.56	146	87368	5.10	ppb	96
101) n-Butylbenzene	23.23	91	120455	5.15	ppb	99
102) 1,2-Dclbenz	23.41	146	80309	4.95	ppb	97
103) 1,2-Dibromo-3-chloropropan	25.27	157	8408	4.78	ppb	92
105) 1,2,4-Tcbenzene	27.37	180	38502	4.99	ppb	99
106) Hexachlorobt	27.70	225	18418	6.12	ppb	91
107) Naphthalen	27.99	128	96578	4.72	ppb	97
108) 1,2,3-Tclbenzene	28.58	180	32496	4.69	ppb	99



Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA7\DATA\030509\M6757.D Vial: 5  
 Acq On : 5 Mar 2009 6:49 pm Operator: B.Bush  
 Sample : 5.0 Inst : MS #7  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Mar 6 10:29 2009 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 06 10:48:20 2009  
 Response via : Multiple Level Calibration



(36) Propionitrile

10.27min 1.68ppb

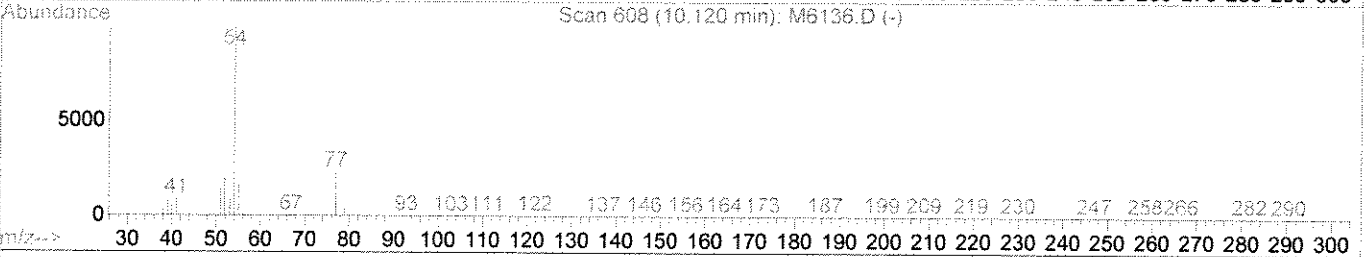
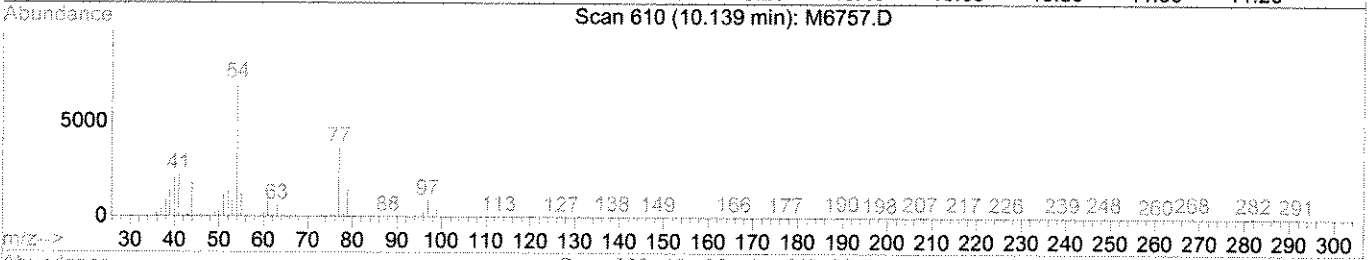
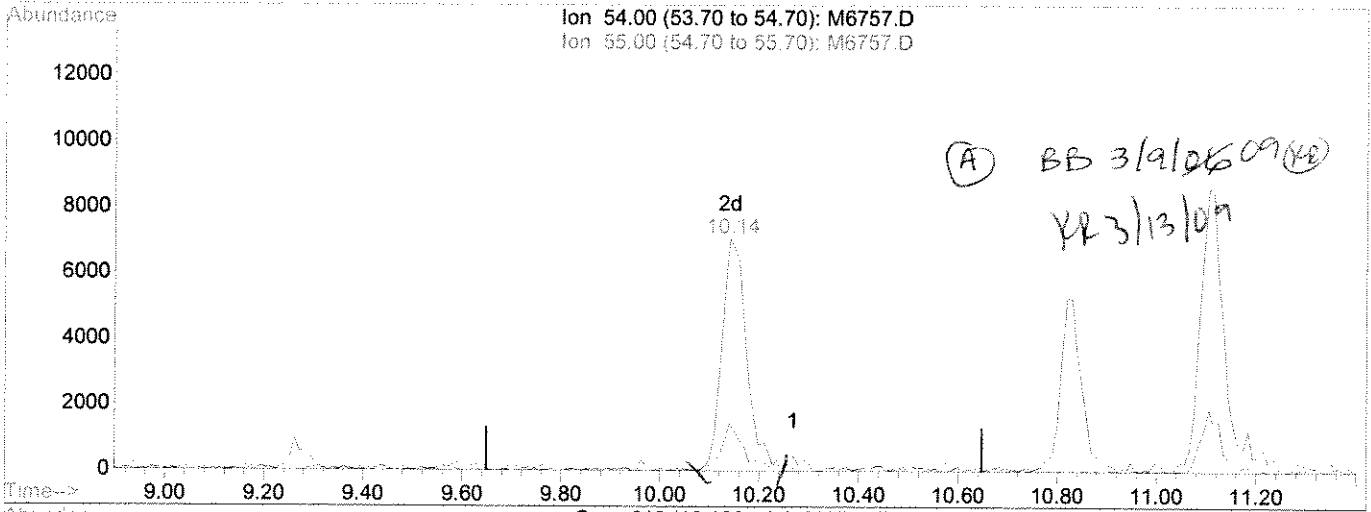
response 1629

ion	Exp%	Act%
54.00	100	100
55.00	15.50	12.55
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA7\DATA\030509\M6757.D Vial: 5  
 Acq On : 5 Mar 2009 6:49 pm Operator: B.Bush  
 Sample : 5.0 Inst : MS #7  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Mar 6 10:49 2009 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 06 10:48:20 2009  
 Response via : Multiple Level Calibration



TIC: M6757.D

(36) Propionitrile

10.14min 25.26ppb m

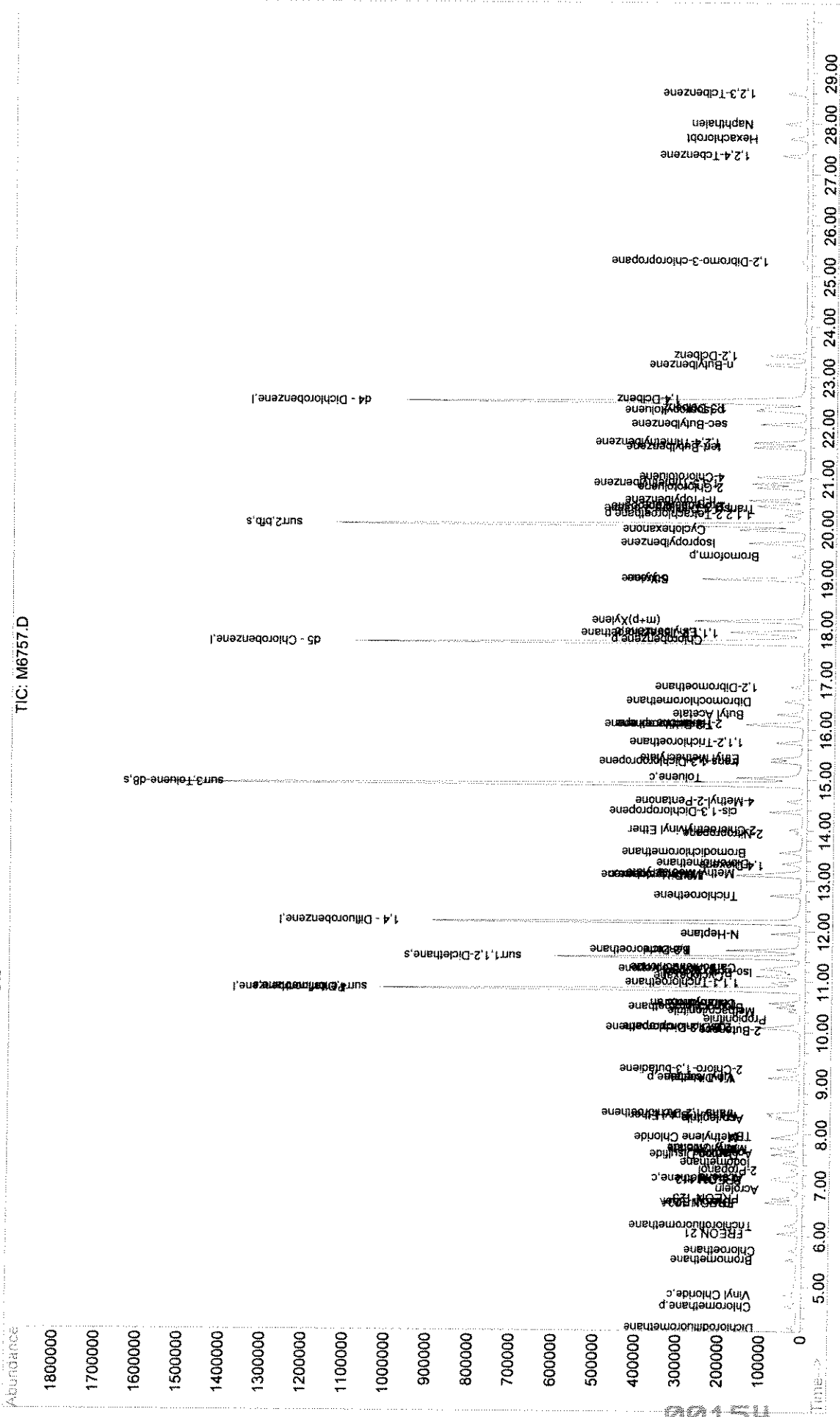
response 24556

Ion	Exp%	Act%
54.00	100	100
55.00	15.50	20.20#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : J:\ACQDATA\MSVOA7\DATA\030509\M6757.D Vial: 5  
Acq On : 5 Mar 2009 6:49 pm Operator: B.Bush  
Sample : 5.0 Inst : MS #7  
Misc : Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Mar 6 10:29 2009 Quant Results File: WAT0305.RES

Method : J:\ACQDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
Title : 8260B.WATERS  
Last Update : Fri Mar 06 10:21:51 2009  
Response via : Initial Calibration



Data File : J:\ACQUDATA\MSVOA7\DATA\030509\M6758.D Vial: 6  
 Acq On : 5 Mar 2009 7:26 pm Operator: B.Bush  
 Sample : 20 Inst : MS #7  
 Misc : Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Mar 6 10:29 2009

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)

Title : 8260B.WATERS  
 Last Update : Fri Mar 06 10:21:51 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.84	168	619452	50.00	ppb	0.00
42) 1,4 - Difluorobenzene	12.18	114	1139226	50.00	ppb	0.00
63) d5 - Chlorobenzene	17.72	117	1099689	50.00	ppb	0.00
86) d4 - Dichlorobenzene	22.50	152	523797	50.00	ppb	0.00

System Monitoring Compounds

44) surr4,Dibrflmethane	10.86	113	856872	99.27	ppb	0.00
Spiked Amount	50.000	Range 89 - 115	Recovery	=	198.54%#	
48) surr1,1,2-Dicethane	11.48	65	777183	94.90	ppb	0.00
Spiked Amount	50.000	Range 80 - 120	Recovery	=	189.80%#	
69) surr3,Toluene-d8	14.91	98	2468167	95.99	ppb	0.00
Spiked Amount	50.000	Range 88 - 124	Recovery	=	191.98%#	
70) surr2,bfb	20.06	95	1097988	94.88	ppb	0.00
Spiked Amount	50.000	Range 80 - 123	Recovery	=	189.76%#	

BB  
3/17/09

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	4.22	85	160536	23.22	ppb	100
3) Chloromethane	4.62	50	193438	21.19	ppb	92
4) Vinyl Chloride	4.84	62	149917	21.85	ppb	100
5) Bromomethane	5.54	96	130836	20.80	ppb	98
6) Chloroethane	5.72	64	113409	19.68	ppb	98
7) FREON 21	6.05	67	273201	17.14	ppb	95
8) Trichlorofluoromethane	6.21	101	189013	21.01	ppb	96
9) Diethyl Ether	6.67	59	127742	20.68	ppb	97
10) FREON 123A	6.65	67	180474	17.10	ppb	97
11) FREON 123	6.74	83	185327	17.57	ppb	99
12) Acrolein	6.92	56	88845	107.81	ppb	90
13) FREON 113	7.09	101	129586	20.86	ppb	89
14) 1,1-Dicethene	7.13	96	120726	20.06	ppb	93
15) Acetone	7.15	43	44639	18.96	ppb	91
16) 2-Propanol	7.30	45	154642	413.43	ppb	99
17) Iodomethane	7.44	142	241387	17.86	ppb	99
18) Carbon Disulfide	7.60	76	417147	16.70	ppb	99
19) Acetonitrile	7.64	41	87699	105.17	ppb	99
20) Allyl Chloride	7.73	41	306361	20.75	ppb	96
21) Methyl Acetate	7.69	43	164316	20.28	ppb	96
22) Methylene Chloride	7.93	84	166177	20.41	ppb	96
23) TBA	7.98	59	231367	436.67	ppb	99
24) Acrylonitrile	8.31	53	282978	110.56	ppb	96
25) Methyl-t-Butyl Ether	8.37	73	401108	21.14	ppb	98
26) trans-1,2-Dichloroethene	8.40	96	151510	19.72	ppb	99
27) 1,1-Dicethane	9.11	63	324631	19.91	ppb	99
28) Vinyl Acetate	9.10	86	14980	17.58	ppb	89
30) 2-Chloro-1,3-butadiene	9.28	53	178071	16.58	ppb	96
33) 2,2-Dichloropropane	10.11	77	215051	20.61	ppb	97
34) 2-Butanone	10.04	43	85934	19.32	ppb	98
35) cis-1,2-Dichloroethene	10.08	96	176143	20.52	ppb	99
36) Propionitrile	10.15	54	95115	102.03	ppb	99
37) Methacrylonitrile	10.42	67	57986	19.88	ppb	98
38) Bromochloromethane	10.50	128	92518	20.88	ppb	97
39) Chloroform	10.58	83	295924	20.59	ppb	95

(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\MSVOA7\DATA\030509\M6758.D

Vial: 6

Acq On : 5 Mar 2009 7:26 pm

Operator: B.Bush

Sample : 20

Inst : MS #7

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Mar 6 10:29 2009

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)

Title : 8260B.WATERS

Last Update : Fri Mar 06 10:21:51 2009

Response via : Initial Calibration

DataAcq Meth : WAT0305

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
40) Tetrahydrofuran	10.57	42	47344	19.27	ppb	97
41) 1,1,1-Trichloroethane	10.98	97	207576	20.23	ppb	98
43) Cyclohexane	11.11	56	245405	16.83	ppb	94
45) Carbontetrachloride	11.28	117	181433	20.05	ppb	100
46) 1,1-Dichloropropene	11.24	75	226643	19.81	ppb	99
47) Iso-Butyl Alcohol	11.18	43	141013	416.67	ppb	99
49) Benzene	11.63	78	683268	20.72	ppb	100
50) 1,2-Dichloroethane	11.61	62	233887	21.42	ppb	99
51) TAME	11.25	73	27931	53.65	ppb	# 38
52) N-Heptane	11.94	43	186325	23.03	ppb	98
53) Trichloroethene	12.70	95	165809	18.59	ppb	96
54) Methylcyclohexane	13.11	55	182651	16.75	ppb	97
55) 1,2-Diclpropane	13.13	63	221275	19.51	ppb	100
56) Methyl Methacrylate	13.15	100	41413	19.75	ppb	99
57) 1,4-Dioxane	13.30	88	24358	417.77	ppb	87
58) Dibromomethane	13.34	93	124433	19.84	ppb	96
59) Bromodichloromethane	13.56	83	238794	19.44	ppb	93
60) 2-Nitropropane	13.94	43	95001	43.23	ppb	99
61) 2-Chloroethylvinyl Ether	14.01	63	102977	19.69	ppb	98
62) cis-1,3-Dichloropropene	14.37	75	325196	19.88	ppb	99
64) 4-Methyl-2-Pentanone	14.57	43	214298	19.90	ppb	99
65) Toluene	15.04	91	638100	19.10	ppb	99
66) trans-1,3-Dichloropropene	15.36	75	284536	19.84	ppb	96
67) Ethyl Methacrylate	15.42	69	249101	19.85	ppb	98
68) 1,1,2-Trichloroethane	15.75	83	139794	19.52	ppb	99
71) Tetrachloroethene	16.10	166	157041	19.89	ppb	93
72) 2-Hexanone	16.13	43	150434	19.60	ppb	98
73) 1,3-Dichloropropene	16.09	76	307867	20.61	ppb	93
74) Butyl Acetate	16.30	43	393466	20.28	ppb	98
75) Dibromochloromethane	16.55	129	200294	20.35	ppb	98
76) 1,2-Dibromoethane	16.84	107	176581	19.65	ppb	93
77) Chlorobenzene	17.78	112	460036	19.75	ppb	99
78) 1,1,1,2-Tetrachloroethane	17.90	131	169096	19.23	ppb	97
79) Ethylbenzene	17.93	91	756157	19.71	ppb	99
80) (m+p)Xylene	18.15	106	539125	38.58	ppb	99
81) o-Xylene	18.99	106	273977	19.44	ppb	94
82) Styrene	19.00	104	441604	19.10	ppb	95
83) Bromoform	19.45	173	117061	19.54	ppb	93
84) Isopropylbenzene	19.71	105	636937	19.50	ppb	99
85) Cyclohexanone	19.96	55	610195	428.12	ppb	99
87) 1,1,2,2-Tetrachloroethane	20.26	83	209778	19.15	ppb	99
88) Trans-1,4-Dichloro-2-buten	20.38	53	42917	17.73	ppb	91
89) 1,2,3-Trichloropropene	20.42	110	50673	18.46	ppb	93
90) n-Propylbenzene	20.56	91	794174	18.81	ppb	100
91) Bromobenzene	20.45	156	193810	19.30	ppb	91
92) 1,3,5-Trimethylbenzene	20.88	105	487864	18.74	ppb	99
93) 2-Chlorotoluene	20.80	91	522802	19.54	ppb	97
94) 4-Chlorotoluene	21.02	91	514805	18.51	ppb	97
95) tert-Butylbenzene	21.60	119	396101	18.81	ppb	99
96) 1,2,4-Trimethylbenzene	21.69	105	500484	19.06	ppb	99

(#)= qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : J:\ACQUDATA\MSVOA7\DATA\030509\M6758.D  
 Acq On : 5 Mar 2009 7:26 pm  
 Sample : 20  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Mar 6 10:29 2009

Vial: 6  
 Operator: B.Bush  
 Inst : MS #7  
 Multiplr: 1.00

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 06 10:21:51 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
97) sec-Butylbenzene	22.05	105	552330	18.32	ppb	99
98) p-Isopropyltoluene	22.33	119	453018	18.23	ppb	98
99) 1,3-Dclbenz	22.38	146	318956	18.74	ppb	98
100) 1,4-Dclbenz	22.56	146	332793	18.87	ppb	96
101) n-Butylbenzene	23.24	91	447047	18.55	ppb	97
102) 1,2-Dclbenz	23.41	146	311202	18.62	ppb	97
103) 1,2-Dibromo-3-chloropropan	25.28	157	33728	18.62	ppb	97
105) 1,2,4-Tcbenzene	27.37	180	143987	18.13	ppb	95
106) Hexachlorobt	27.71	225	55268	21.24	ppb	93
107) Naphthalen	27.99	128	396431	18.83	ppb	98
108) 1,2,3-Tclbenzene	28.59	180	127135	17.81	ppb	96

(#) = qualifier out of range (m) = manual integration  
 M6758.D WAT0305.M Fri Mar 06 10:29:51 2009

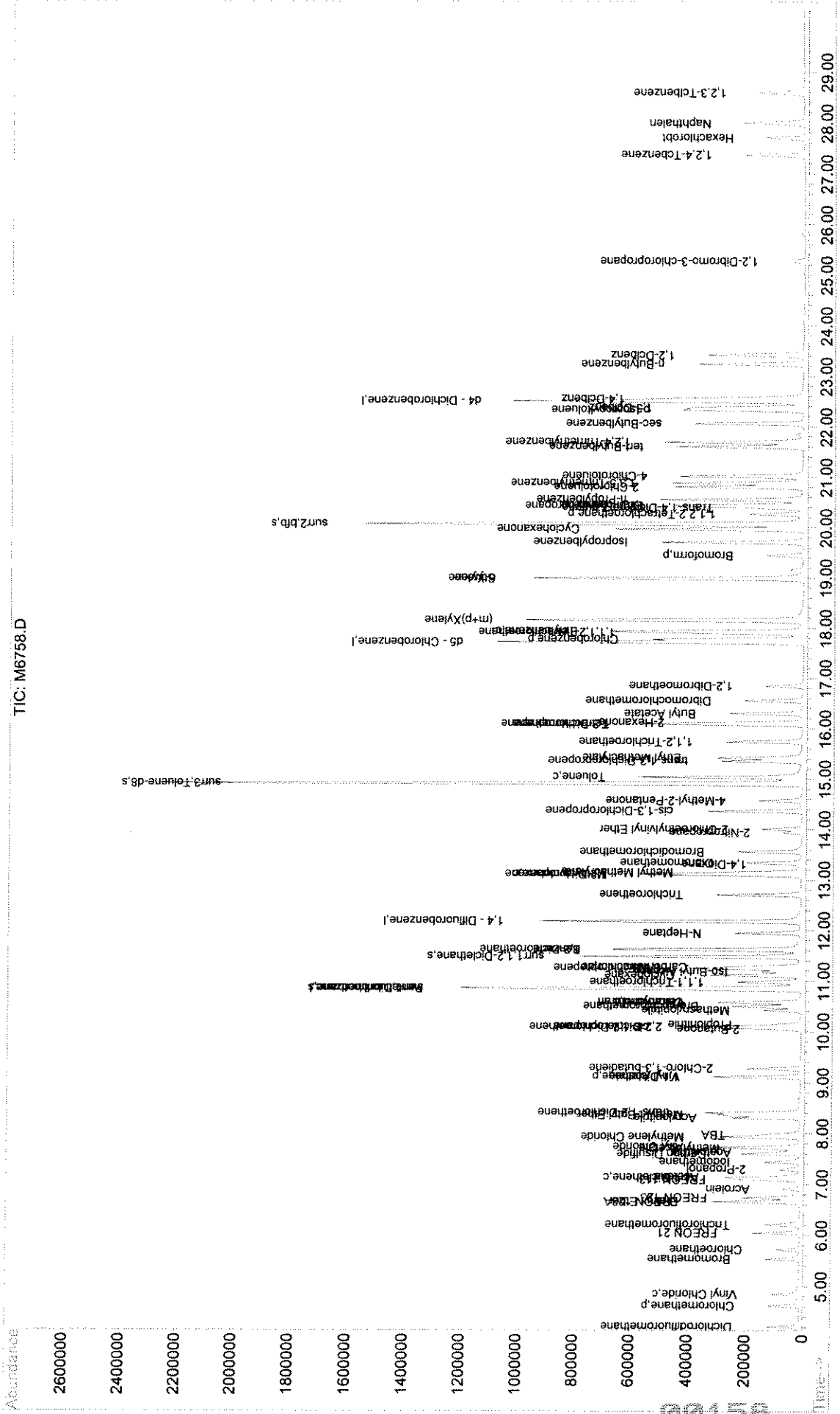
Quantitation Report

Data File : J:\ACQDATA\MSVOA7\DATA\030509\M6758.D  
 Acq On : 5 Mar 2009 7:26 pm  
 Sample : 20  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Mar 6 10:29 2009

Vial: 6  
 Operator: B.Bush  
 Inst : MS #7  
 Multiplr: 1.00

Quant Results File: WAT0305.RES

Method : J:\ACQDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 06 10:21:51 2009  
 Response via : Initial Calibration



Data File : J:\ACQUDATA\MSVOA7\DATA\030509\M6759.D  
 Acq On : 5 Mar 2009 8:03 pm  
 Sample : 50  
 Misc :

Vial: 7  
 Operator: B.Bush  
 Inst : MS #7  
 Multiplr: 1.00

MS Integration Params: RTEINT.P  
 Quant Time: Mar 6 10:29 2009

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 06 10:21:51 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.84	168	601326	50.00	ppb	0.00
42) 1,4 - Difluorobenzene	12.18	114	1157291	50.00	ppb	0.00
63) d5 - Chlorobenzene	17.73	117	1088355	50.00	ppb	0.00
86) d4 - Dichlorobenzene	22.51	152	530215	50.00	ppb	0.00

System Monitoring Compounds

44) surr4,Dibrflmethane	10.86	113	426919	48.69	ppb	0.00
Spiked Amount	50.000	Range	89 - 115	Recovery	=	97.38%
48) surr1,1,2-Diclcethane	11.48	65	408557	49.11	ppb	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	98.22%
69) surr3,Toluene-d8	14.91	98	1342600	52.76	ppb	0.00
Spiked Amount	50.000	Range	88 - 124	Recovery	=	105.52%
70) surr2,bfb	20.06	95	588027	51.34	ppb	0.00
Spiked Amount	50.000	Range	80 - 123	Recovery	=	102.68%

BA  
3/17/09

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	4.22	85	346701	51.67	ppb	100
3) Chloromethane	4.62	50	445062	50.23	ppb	100
4) Vinyl Chloride	4.85	62	326582	49.03	ppb	100
5) Bromomethane	5.54	96	310743	50.89	ppb	100
6) Chloroethane	5.72	64	268349	47.98	ppb	100
7) FREON 21	6.05	67	746043	48.23	ppb	100
8) Trichlorofluoromethane	6.21	101	414113	47.41	ppb	100
9) Diethyl Ether	6.67	59	295601	49.31	ppb	100
10) FREON 123A	6.65	67	476365	46.48	ppb	100
11) FREON 123	6.74	83	470016	45.90	ppb	100
12) Acrolein	6.91	56	226386	282.99	ppb	100
13) FREON 113	7.09	101	268431	44.52	ppb	100
14) 1,1-Diclcethene	7.13	96	279589	47.85	ppb	100
15) Acetone	7.16	43	106436	46.57	ppb	100
16) 2-Propanol	7.29	45	386472	1064.36	ppb	100
17) Iodomethane	7.44	142	662070	50.47	ppb	100
18) Carbon Disulfide	7.60	76	1223521	50.46	ppb	100
19) Acetonitrile	7.64	41	217288	268.43	ppb	100
20) Allyl Chloride	7.73	41	718162	50.10	ppb	100
21) Methyl Acetate	7.69	43	405141	51.52	ppb	100
22) Methylene Chloride	7.93	84	388987	49.23	ppb	100
23) TBA	7.97	59	550449	1070.21	ppb	100
24) Acrylonitrile	8.31	53	653799	263.13	ppb	100
25) Methyl-t-Butyl Ether	8.36	73	952037	51.70	ppb	100
26) trans-1,2-Dichloroethene	8.41	96	356980	47.86	ppb	100
27) 1,1-Diclcethane	9.11	63	768255	48.54	ppb	100
28) Vinyl Acetate	9.10	86	39220	49.12	ppb	100
30) 2-Chloro-1,3-butadiene	9.27	53	526726	50.53	ppb	100
32) ETBE	10.08	59	15229	55.01	ppb	100
33) 2,2-Dichloropropane	10.11	77	457598	45.17	ppb	100
34) 2-Butanone	10.03	43	220630	51.10	ppb	100
35) cis-1,2-Dichloroethene	10.08	96	409272	49.12	ppb	100
36) Propionitrile	10.15	54	243736	269.35	ppb	100
37) Methacrylonitrile	10.42	67	149158	52.67	ppb	100
38) Bromochloromethane	10.50	128	228523	53.14	ppb	100

(#) = qualifier out of range (m) = manual integration



Data File : J:\ACQUDATA\MSVOA7\DATA\030509\M6759.D

Vial: 7

Acq On : 5 Mar 2009 8:03 pm

Operator: B.Bush

Sample : 50

Inst : MS #7

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Mar 6 10:29 2009

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)

Title : 8260B.WATERS

Last Update : Fri Mar 06 10:21:51 2009

Response via : Initial Calibration

DataAcq Meth : WAT0305

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39) Chloroform	10.58	83	704746	50.51	ppb	100
40) Tetrahydrofuran	10.57	42	119445	50.07	ppb	100
41) 1,1,1-Trichloroethane	10.98	97	466892	46.88	ppb	100
43) Cyclohexane	11.11	56	664971	44.88	ppb	100
45) Carbontetrachloride	11.28	117	395370	43.02	ppb	100
46) 1,1-Dichloropropene	11.24	75	516190	44.42	ppb	100
47) Iso-Butyl Alcohol	11.18	43	351498	1022.40	ppb	100
49) Benzene	11.63	78	1518889	45.34	ppb	100
50) 1,2-Dichloroethane	11.61	62	554536	49.98	ppb	100
51) TAME	11.64	73	28236	53.39	ppb	100
52) N-Heptane	11.95	43	389728	48.84	ppb	100
53) Trichloroethene	12.71	95	376753	41.58	ppb	100
54) Methylcyclohexane	13.10	55	525312	47.42	ppb	100
55) 1,2-Diclpropane	13.12	63	550396	47.77	ppb	100
56) Methyl Methacrylate	13.15	100	102181	47.97	ppb	100
57) 1,4-Dioxane	13.30	88	59134	998.38	ppb	100
58) Dibromomethane	13.34	93	310629	48.75	ppb	100
59) Bromodichloromethane	13.56	83	609663	48.86	ppb	100
60) 2-Nitropropane	13.94	43	216989	97.20	ppb	100
61) 2-Chloroethylvinyl Ether	14.01	63	263125	49.53	ppb	100
62) cis-1,3-Dichloropropene	14.37	75	831591	50.06	ppb	100
64) 4-Methyl-2-Pentanone	14.57	43	547586	51.38	ppb	100
65) Toluene	15.04	91	1474603	44.59	ppb	100
66) trans-1,3-Dichloropropene	15.35	75	703651	49.57	ppb	100
67) Ethyl Methacrylate	15.42	69	624807	50.32	ppb	100
68) 1,1,2-Trichloroethane	15.74	83	351534	49.60	ppb	100
71) Tetrachloroethene	16.11	166	331644	42.44	ppb	100
72) 2-Hexanone	16.13	43	374924	49.36	ppb	100
73) 1,3-Dichloropropane	16.09	76	744300	50.34	ppb	100
74) Butyl Acetate	16.30	43	984183	51.26	ppb	100
75) Dibromochloromethane	16.55	129	492014	50.50	ppb	100
76) 1,2-Dibromoethane	16.85	107	441119	49.59	ppb	100
77) Chlorobenzene	17.79	112	1028161	44.61	ppb	100
78) 1,1,1,2-Tetrachloroethane	17.90	131	388550	44.65	ppb	100
79) Ethylbenzene	17.94	91	1559393	41.07	ppb	100
80) (m+p)Xylene	18.16	106	1196883	86.55	ppb	100
81) o-Xylene	18.99	106	624656	44.79	ppb	100
82) Styrene	19.00	104	1064407	46.52	ppb	100
83) Bromoform	19.45	173	305752	51.58	ppb	100
84) Isopropylbenzene	19.71	105	1383685	42.80	ppb	100
85) Cyclohexanone	19.96	55	1452060	1029.39	ppb	100
87) 1,1,2,2-Tetrachloroethane	20.27	83	527926	47.60	ppb	100
88) Trans-1,4-Dichloro-2-buten	20.38	53	112042	45.72	ppb	100
89) 1,2,3-Trichloropropane	20.42	110	133947	48.20	ppb	100
90) n-Propylbenzene	20.56	91	1829507	42.81	ppb	100
91) Bromobenzene	20.45	156	462792	45.54	ppb	100
92) 1,3,5-Trimethylbenzene	20.88	105	1117777	42.42	ppb	100
93) 2-Chlorotoluene	20.80	91	1167653	43.11	ppb	100
94) 4-Chlorotoluene	21.02	91	1225612	43.53	ppb	100
95) tert-Butylbenzene	21.60	119	889677	41.74	ppb	100

(#)= qualifier out of range (m) = manual integration

M6759.D WAT0305.M

Fri Mar 06 10:29:58 2009

Data File : J:\ACQUDATA\MSVOA7\DATA\030509\M6759.D

Vial: 7

Acq On : 5 Mar 2009 8:03 pm

Operator: B.Bush

Sample : 50

Inst : MS #7

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Mar 6 10:29 2009

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)

Title : 8260B.WATERS

Last Update : Fri Mar 06 10:21:51 2009

Response via : Initial Calibration

DataAcq Meth : WAT0305

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
96) 1,2,4-Trimethylbenzene	21.69	105	1161603	43.71	ppb	100
97) sec-Butylbenzene	22.06	105	1277818	41.86	ppb	100
98) p-Isopropyltoluene	22.33	119	1074697	42.73	ppb	100
99) 1,3-Dclbenz	22.38	146	773121	44.88	ppb	100
100) 1,4-Dclbenz	22.56	146	800134	44.83	ppb	100
101) n-Butylbenzene	23.24	91	1028596	42.17	ppb	100
102) 1,2-Dclbenz	23.42	146	755545	44.65	ppb	100
103) 1,2-Dibromo-3-chloropropan	25.28	157	88363	48.19	ppb	100
105) 1,2,4-Tcbenzene	27.37	180	361005	44.91	ppb	100
106) Hexachlorobt	27.71	225	134874	53.73	ppb	100
107) Naphthalen	28.00	128	1022634	47.98	ppb	100
108) 1,2,3-Tclbenzene	28.59	180	324465	44.89	ppb	100

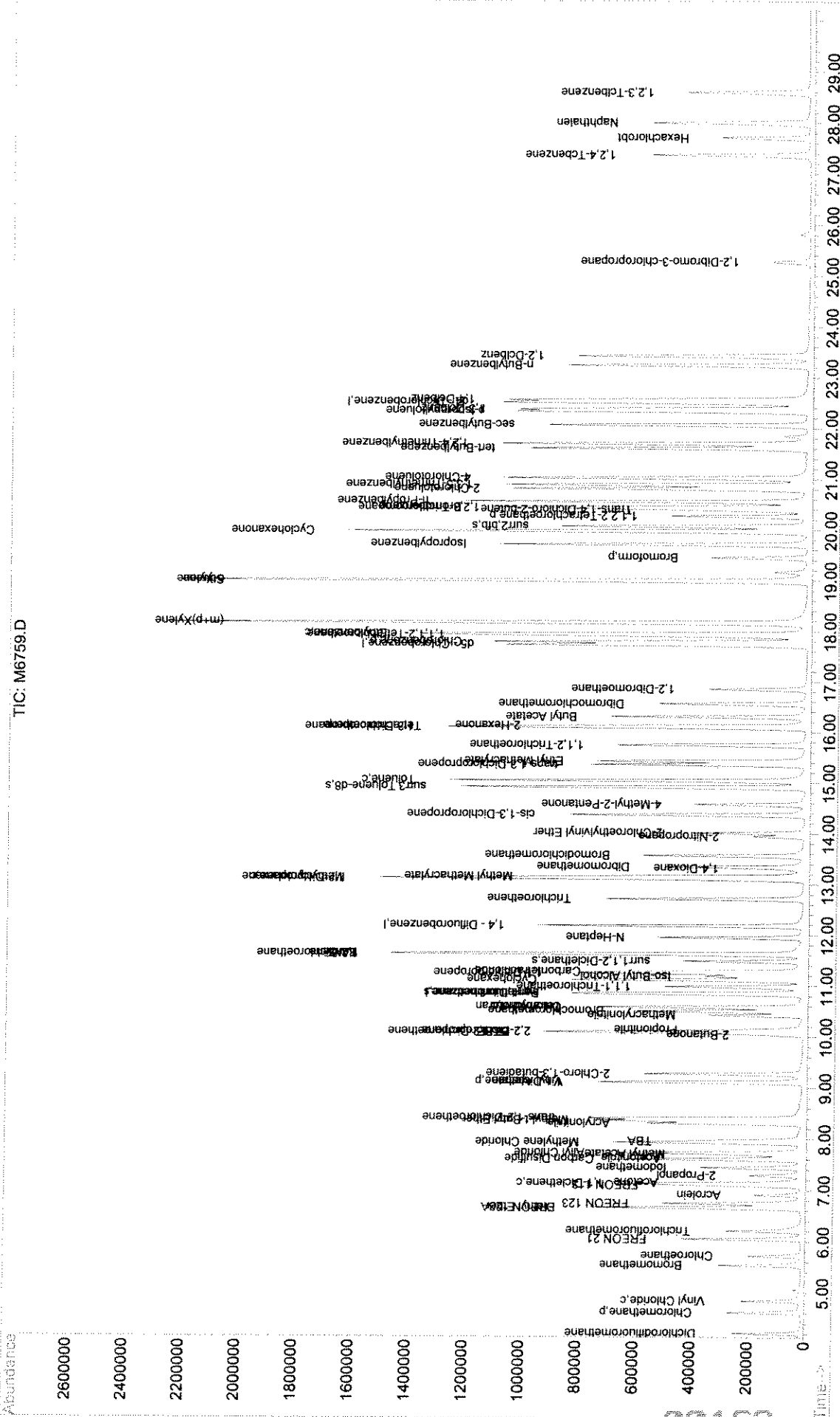
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 (#) = qualifier out of range (m) = manual integration

M6759.D WAT0305.M Fri Mar 06 10:29:59 2009

Quantitation Report

Data File : J:\ACQDATA\MSVOA7\DATA\030509\M6759.D Vial: 7  
 Acq On : 5 Mar 2009 8:03 pm Operator: B. Bush  
 Sample : 50 Inst : MS #7  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Mar 6 10:29 2009 Quant Results File: WAT0305.RES

Method : J:\ACQDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 06 10:21:51 2009  
 Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : J:\ACQUDATA\MSVOA7\DATA\030509\M6760.D  
 Acq On : 5 Mar 2009 8:40 pm  
 Sample : 100  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Mar 6 10:29 2009

Vial: 8  
 Operator: B.Bush  
 Inst : MS #7  
 Multiplr: 1.00

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 06 10:21:51 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.83	168	601350	50.00	ppb	0.00
42) 1,4 - Difluorobenzene	12.18	114	1106211	50.00	ppb	0.00
63) d5 - Chlorobenzene	17.72	117	1099163	50.00	ppb	0.00
86) d4 - Dichlorobenzene	22.50	152	529230	50.00	ppb	0.00

System Monitoring Compounds

44) surr4,Dibrflmethane	10.86	113	1042013	124.32	ppb	0.00
Spiked Amount	50.000	Range	89 - 115	Recovery	=	248.64%#
48) surr1,1,2-Dicethane	11.48	65	1035794	130.26	ppb	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	260.52%#
69) surr3,Toluene-d8	14.91	98	3144556	122.36	ppb	0.00
Spiked Amount	50.000	Range	88 - 124	Recovery	=	244.72%#
70) surr2,bfb	20.07	95	1442962	124.75	ppb	0.00
Spiked Amount	50.000	Range	80 - 123	Recovery	=	249.50%#

BB  
3/17/09

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	4.21	85	749919	111.76	ppb	99
3) Chloromethane	4.62	50	932209	105.20	ppb	100
4) Vinyl Chloride	4.84	62	715085	107.36	ppb	99
5) Bromomethane	5.53	96	632452	103.57	ppb	97
6) Chloroethane	5.72	64	545732	97.56	ppb	99
7) FREON 21	6.05	67	1432845	92.62	ppb	97
8) Trichlorofluoromethane	6.21	101	825963	94.56	ppb	100
9) Diethyl Ether	6.66	59	624851	104.23	ppb	98
10) FREON 123A	6.66	67	918203	89.60	ppb	98
11) FREON 123	6.74	83	918354	89.69	ppb	98
12) Acrolein	6.91	56	476512	595.63	ppb	94
13) FREON 113	7.10	101	561580	93.14	ppb	97
14) 1,1-Dicethene	7.14	96	572339	97.95	ppb	97
15) Acetone	7.15	43	208988	91.44	ppb	92
16) 2-Propanol	7.30	45	803704	2213.35	ppb	98
17) Iodomethane	7.44	142	1296496	98.83	ppb	99
18) Carbon Disulfide	7.60	76	2306599	95.13	ppb	99
19) Acetonitrile	7.63	41	464121	573.34	ppb	97
20) Allyl Chloride	7.73	41	1482448	103.41	ppb	100
21) Methyl Acetate	7.70	43	842641	107.16	ppb	98
22) Methylene Chloride	7.93	84	808131	102.26	ppb	95
23) TBA	7.98	59	1137369	2211.24	ppb	99
24) Acrylonitrile	8.30	53	1388923	558.97	ppb	99
25) Methyl-t-Butyl Ether	8.36	73	1948121	105.78	ppb	98
26) trans-1,2-Dichloroethene	8.41	96	744627	99.82	ppb	97
27) 1,1-Dicethane	9.12	63	1616212	102.12	ppb	98
28) Vinyl Acetate	9.10	86	88017	111.47	ppb	90
30) 2-Chloro-1,3-butadiene	9.28	53	1055759	101.27	ppb	97
32) ETBE	10.08	59	27844	100.57	ppb	# 92
33) 2,2-Dichloropropane	10.11	77	942444	93.02	ppb	100
34) 2-Butanone	10.04	43	419630	97.18	ppb	98
35) cis-1,2-Dichloroethene	10.08	96	819462	98.35	ppb	94
36) Propionitrile	10.14	54	465395	514.28	ppb	97
37) Methacrylonitrile	10.42	67	301405	106.43	ppb	96
38) Bromochloromethane	10.50	128	462320	107.50	ppb	95

(#) = qualifier out of range (m) = manual integration  
 M6760.D WAT0305.M Fri Mar 06 10:30:06 2009

Data File : J:\ACQUDATA\MSVOA7\DATA\030509\M6760.D  
 Acq On : 5 Mar 2009 8:40 pm  
 Sample : 100  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Mar 6 10:29 2009

Vial: 8  
 Operator: B.Bush  
 Inst : MS #7  
 Multiplr: 1.00

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 06 10:21:51 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39) Chloroform	10.59	83	1440674	103.25	ppb	97
40) Tetrahydrofuran	10.59	42	241702	101.32	ppb	96
41) 1,1,1-Trichloroethane	10.98	97	987953	99.19	ppb	98
43) Cyclohexane	11.12	56	1351257	95.42	ppb	98
45) Carbontetrachloride	11.29	117	847587	96.48	ppb	98
46) 1,1-Dichloropropene	11.25	75	1086872	97.85	ppb	100
47) Iso-Butyl Alcohol	11.19	43	715013	2175.79	ppb	98
49) Benzene	11.63	78	2987207	93.28	ppb	99
50) 1,2-Dichloroethane	11.61	62	1111900	104.85	ppb	99
51) TAME	11.62	73	48941	96.82	ppb	# 90
52) N-Heptane	11.95	43	752018	99.97	ppb	97
53) Trichloroethene	12.71	95	789884	91.20	ppb	98
54) Methylcyclohexane	13.10	55	977646	92.33	ppb	98
55) 1,2-Diclpropane	13.12	63	1102743	100.13	ppb	100
56) Methyl Methacrylate	13.16	100	203867	100.14	ppb	95
57) 1,4-Dioxane	13.30	88	119149	2104.53	ppb	96
58) Dibromomethane	13.34	93	626691	102.90	ppb	95
59) Bromodichloromethane	13.56	83	1228845	103.03	ppb	99
60) 2-Nitropropane	13.94	43	476131	223.14	ppb	97
61) 2-Chloroethylvinyl Ether	14.01	63	553010	108.91	ppb	100
62) cis-1,3-Dichloropropene	14.36	75	1625212	102.34	ppb	99
64) 4-Methyl-2-Pentanone	14.57	43	1048009	97.37	ppb	98
65) Toluene	15.04	91	3002127	89.89	ppb	99
66) trans-1,3-Dichloropropene	15.36	75	1467607	102.38	ppb	99
67) Ethyl Methacrylate	15.43	69	1247805	99.50	ppb	98
68) 1,1,2-Trichloroethane	15.74	83	718623	100.40	ppb	98
71) Tetrachloroethene	16.11	166	715536	90.66	ppb	99
72) 2-Hexanone	16.13	43	782862	102.06	ppb	99
73) 1,3-Dichloropropene	16.09	76	1511067	101.20	ppb	100
74) Butyl Acetate	16.30	43	2026763	104.52	ppb	99
75) Dibromochloromethane	16.56	129	1026198	104.29	ppb	98
76) 1,2-Dibromoethane	16.85	107	928127	103.31	ppb	96
77) Chlorobenzene	17.78	112	2162689	92.91	ppb	99
78) 1,1,1,2-Tetrachloroethane	17.91	131	833941	94.90	ppb	98
79) Ethylbenzene	17.94	91	3502262	91.34	ppb	99
80) (m+p)Xylene	18.16	106	2452754	175.62	ppb	99
81) o-Xylene	18.98	106	1316724	93.48	ppb	95
82) Styrene	18.99	104	2229255	96.47	ppb	96
83) Bromoform	19.45	173	637389	106.47	ppb	97
84) Isopropylbenzene	19.70	105	2854328	87.42	ppb	96
85) Cyclohexanone	19.97	55	2703328	1897.60	ppb	98
87) 1,1,2,2-Tetrachloroethane	20.27	83	1065390	96.24	ppb	97
88) Trans-1,4-Dichloro-2-buten	20.37	53	232072	94.87	ppb	83
89) 1,2,3-Trichloropropane	20.41	110	2711170	97.76	ppb	98
90) n-Propylbenzene	20.55	91	3697667	86.69	ppb	100
91) Bromobenzene	20.44	156	963836	95.01	ppb	96
92) 1,3,5-Trimethylbenzene	20.89	105	2346219	89.22	ppb	100
93) 2-Chlorotoluene	20.81	91	2403829	88.91	ppb	100
94) 4-Chlorotoluene	21.02	91	2578109	91.74	ppb	97
95) tert-Butylbenzene	21.61	119	1836265	86.32	ppb	99

(#) = qualifier out of range (m) = manual integration  
 M6760.D WAT0305.M Fri Mar 06 10:30:06 2009

Quantitation Report (Not Reviewed)

Data File : J:\ACQUDATA\MSVOA7\DATA\030509\M6760.D  
 Acq On : 5 Mar 2009 8:40 pm  
 Sample : 100  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Mar 6 10:29 2009

Vial: 8  
 Operator: B.Bush  
 Inst : MS #7  
 Multiplr: 1.00

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 06 10:21:51 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
96) 1,2,4-Trimethylbenzene	21.69	105	2413998	91.01	ppb	99
97) sec-Butylbenzene	22.06	105	2505742	82.24	ppb	96
98) p-Isopropyltoluene	22.33	119	2092886	83.36	ppb	99
99) 1,3-Dclbenz	22.38	146	1564269	90.98	ppb	98
100) 1,4-Dclbenz	22.56	146	1602204	89.93	ppb	100
101) n-Butylbenzene	23.23	91	2028427	83.31	ppb	99
102) 1,2-Dclbenz	23.42	146	1541867	91.29	ppb	98
103) 1,2-Dibromo-3-chloropropan	25.27	157	183934	100.50	ppb	92
105) 1,2,4-Tcbenzene	27.37	180	749515	93.41	ppb	98
106) Hexachlorobt	27.71	225	242286	98.13	ppb	97
107) Naphthalen	27.99	128	2090648	98.26	ppb	97
108) 1,2,3-Tclbenzene	28.59	180	663945	92.04	ppb	97

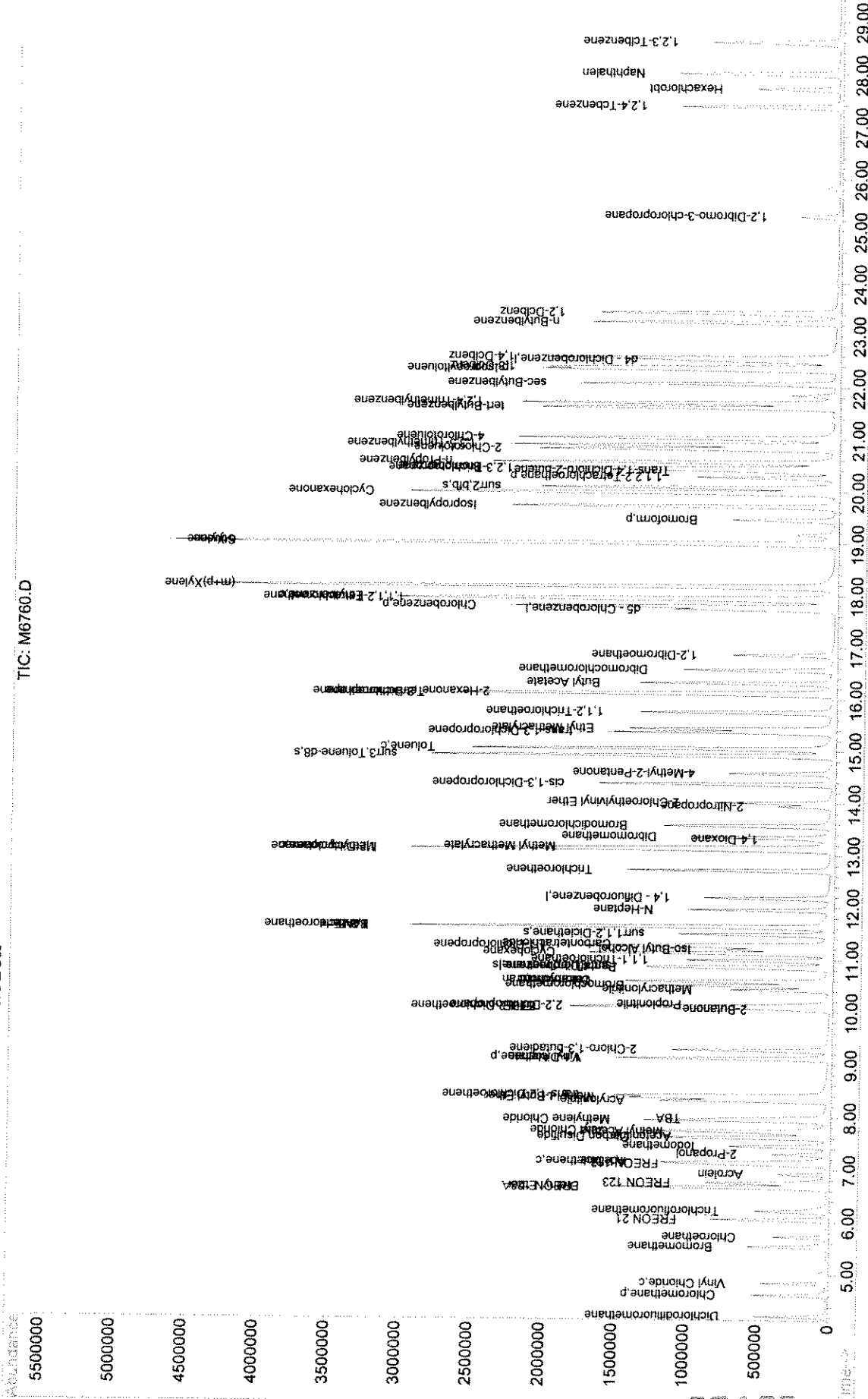
Quantitation Report

Data File : J:\ACQDATA\MSVOA7\DATA\030509\M6760.D  
Acq On : 5 Mar 2009 8:40 pm  
Sample : 100  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Mar 6 10:29 2009

Vial: 8  
Operator: B.Bush  
Inst : MS #7  
Multiplr: 1.00

Quant Results File: WAT0305.RES

Method : J:\ACQDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
Title : 8260B.WATERS  
Last Update : Fri Mar 06 10:21:51 2009  
Response via : Initial Calibration



Data File : J:\ACQUDATA\MSVOA7\DATA\030509\M6761.D  
 Acq On : 5 Mar 2009 9:16 pm  
 Sample : 200  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Mar 6 10:30 2009

Vial: 9  
 Operator: B.Bush  
 Inst : MS #7  
 Multiplr: 1.00

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 06 10:21:51 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.83	168	682998	50.00	ppb	0.00
42) 1,4 - Difluorobenzene	12.18	114	1181716	50.00	ppb	0.00
63) d5 - Chlorobenzene	17.72	117	1118631	50.00	ppb	0.00
86) d4 - Dichlorobenzene	22.50	152	539787	50.00	ppb	0.00

System Monitoring Compounds

44) surr4, Dibrflmethane	10.86	113	1324838	147.97	ppb	0.00
Spiked Amount	50.000	Range	89 - 115	Recovery	=	295.94%#
48) surr1, 1,2-Dicethane	11.48	65	1237859	145.72	ppb	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	291.44%#
69) surr3, Toluene-d8	14.91	98	3892590	148.83	ppb	0.00
Spiked Amount	50.000	Range	88 - 124	Recovery	=	297.66%#
70) surr2, bfb	20.07	95	1793945	152.40	ppb	0.00
Spiked Amount	50.000	Range	80 - 123	Recovery	=	304.80%#

BB  
3/17/09

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	4.21	85	1620728	212.66	ppb	99
3) Chloromethane	4.63	50	1908450	189.63	ppb	97
4) Vinyl Chloride	4.84	62	1512134	199.89	ppb	98
5) Bromomethane	5.53	96	1375746	198.37	ppb	98
6) Chloroethane	5.72	64	1190036	187.32	ppb	97
7) FREON 21	6.04	67	3416474	194.45	ppb	99
8) Trichlorofluoromethane	6.20	101	1927554	194.29	ppb	99
9) Diethyl Ether	6.67	59	1205607	177.06	ppb	96
10) FREON 123A	6.66	67	2185925	187.80	ppb	99
11) FREON 123	6.74	83	2282107	196.23	ppb	99
12) Acrolein	6.91	56	983952	1082.88	ppb	96
13) FREON 113	7.10	101	1387515	202.61	ppb	96
14) 1,1-Dicethene	7.14	96	1266539	190.85	ppb	98
15) Acetone	7.15	43	435735	167.85	ppb	94
16) 2-Propanol	7.30	45	1648962	3998.28	ppb	97
17) Iodomethane	7.44	142	2838885	190.54	ppb	99
18) Carbon Disulfide	7.60	76	5389638	195.70	ppb	99
19) Acetonitrile	7.63	41	859413	934.74	ppb	97
20) Allyl Chloride	7.74	41	3221405	197.85	ppb	99
21) Methyl Acetate	7.70	43	1679016	187.99	ppb	99
22) Methylene Chloride	7.93	84	1661737	185.15	ppb	96
23) TBA	7.98	59	2209672	3782.42	ppb	99
24) Acrylonitrile	8.30	53	2705224	958.56	ppb	99
25) Methyl-t-Butyl Ether	8.36	73	3699302	176.86	ppb	97
26) trans-1,2-Dichloroethene	8.41	96	1507204	177.89	ppb	98
27) 1,1-Dicethane	9.12	63	3343349	185.99	ppb	98
28) Vinyl Acetate	9.10	86	173949	194.71	ppb	88
29) DIPE	9.10	45	22972	200.00	ppb #	1
30) 2-Chloro-1,3-butadiene	9.28	53	2373809	200.48	ppb	99
32) ETBE	10.08	59	56563	179.88	ppb #	93
33) 2,2-Dichloropropane	10.11	77	2150835	186.92	ppb	98
34) 2-Butanone	10.04	43	880775	179.59	ppb	96
35) cis-1,2-Dichloroethene	10.09	96	1743596	184.25	ppb	99
36) Propionitrile	10.14	54	980372	953.84	ppb	97
37) Methacrylonitrile	10.42	67	637123	198.08	ppb	95

(#) = qualifier out of range (m) = manual integration  
 M6761.D WAT0305.M Fri Mar 06 10:30:14 2009



Data File : J:\ACQUDATA\MSVOA7\DATA\030509\M6761.D

Vial: 9

Acq On : 5 Mar 2009 9:16 pm

Operator: B.Bush

Sample : 200

Inst : MS #7

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Mar 6 10:30 2009

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)

Title : 8260B.WATERS

Last Update : Fri Mar 06 10:21:51 2009

Response via : Initial Calibration

DataAcq Meth : WAT0305

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) Bromochloromethane	10.51	128	936065	191.63	ppb	94
39) Chloroform	10.58	83	2881898	181.85	ppb	95
40) Tetrahydrofuran	10.58	42	453715	167.46	ppb	92
41) 1,1,1-Trichloroethane	10.98	97	2360864	208.69	ppb	98
43) Cyclohexane	11.11	56	3295938	217.87	ppb	98
45) Carbontetrachloride	11.29	117	1982241	211.22	ppb	97
46) 1,1-Dichloropropene	11.25	75	2550665	214.96	ppb	98
47) Iso-Butyl Alcohol	11.19	43	1482538	4223.12	ppb	97
49) Benzene	11.63	78	6647709	194.33	ppb	99
50) 1,2-Dichloroethane	11.61	62	2261313	199.62	ppb	100
51) TAME	11.62	73	107304	198.71	ppb	# 96
52) N-Heptane	11.95	43	2431507	305.32	ppb	98
53) Trichloroethene	12.71	95	1801284	194.68	ppb	97
54) Methylcyclohexane	13.10	55	2305391	203.82	ppb	97
55) 1,2-Dicloropropane	13.12	63	2257886	191.93	ppb	100
56) Methyl Methacrylate	13.16	100	425693	195.73	ppb	96
57) 1,4-Dioxane	13.31	88	236798	3915.33	ppb	87
58) Dibromomethane	13.34	93	1277560	196.36	ppb	95
59) Bromodichloromethane	13.56	83	2652881	208.22	ppb	99
60) 2-Nitropropane	13.94	43	975746	428.07	ppb	96
61) 2-Chloroethylvinyl Ether	14.01	63	1223084	225.48	ppb	99
62) cis-1,3-Dichloropropene	14.36	75	3543866	208.90	ppb	99
64) 4-Methyl-2-Pentanone	14.58	43	2270796	207.31	ppb	98
65) Toluene	15.04	91	6860554	201.85	ppb	97
66) trans-1,3-Dichloropropene	15.36	75	3042870	208.57	ppb	97
67) Ethyl Methacrylate	15.43	69	2585295	202.57	ppb	99
68) 1,1,2-Trichloroethane	15.74	83	1494973	205.24	ppb	99
71) Tetrachloroethene	16.11	166	1731404	215.56	ppb	98
72) 2-Hexanone	16.13	43	1529066	195.87	ppb	100
73) 1,3-Dichloropropane	16.09	76	3016689	198.52	ppb	98
74) Butyl Acetate	16.30	43	4061698	205.81	ppb	99
75) Dibromochloromethane	16.56	129	2194889	219.19	ppb	97
76) 1,2-Dibromoethane	16.85	107	1903769	208.22	ppb	97
77) Chlorobenzene	17.78	112	4949089	208.91	ppb	98
78) 1,1,1,2-Tetrachloroethane	17.90	131	1873947	209.53	ppb	99
79) Ethylbenzene	17.94	91	7933383	203.30	ppb	96
80) (m+p)Xylene	18.17	106	5939399	417.85	ppb	88
81) o-Xylene	18.98	106	2964875	206.83	ppb	94
82) Styrene	19.00	104	4791618	203.75	ppb	99
83) Bromoform	19.45	173	1386555	227.58	ppb	98
84) Isopropylbenzene	19.70	105	7117934	214.20	ppb	96
85) Cyclohexanone	19.97	55	5209645	3593.26	ppb	96
87) 1,1,2,2-Tetrachloroethane	20.27	83	2263343	200.46	ppb	96
88) Trans-1,4-Dichloro-2-buten	20.38	53	495397	198.56	ppb	80
89) 1,2,3-Trichloropropane	20.41	110	545267	192.73	ppb	93
90) n-Propylbenzene	20.55	91	9021187	207.35	ppb	97
91) Bromobenzene	20.45	156	2134609	206.30	ppb	91
92) 1,3,5-Trimethylbenzene	20.89	105	5658109	210.94	ppb	98
93) 2-Chlorotoluene	20.81	91	5662871	205.35	ppb	99
94) 4-Chlorotoluene	21.01	91	5953043	207.68	ppb	98

(#)=qualifier out of range (m) = manual integration

M6761.D WAT0305.M

Fri Mar 06 10:30:15 2009

Data File : J:\ACQUDATA\MSVOA7\DATA\030509\M6761.D  
 Acq On : 5 Mar 2009 9:16 pm  
 Sample : 200  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Mar 6 10:30 2009

Vial: 9  
 Operator: B.Bush  
 Inst : MS #7  
 Multiplr: 1.00

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 06 10:21:51 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
95) tert-Butylbenzene	21.61	119	4661132	214.83	ppb	100
96) 1,2,4-Trimethylbenzene	21.69	105	5866996	216.86	ppb	97
97) sec-Butylbenzene	22.07	105	6769473	217.85	ppb	96
98) p-Isopropyltoluene	22.34	119	5547587	216.64	ppb	99
99) 1,3-Dclbenz	22.38	146	3656391	208.51	ppb	97
100) 1,4-Dclbenz	22.56	146	3677719	202.40	ppb	97
101) n-Butylbenzene	23.23	91	5715557	230.15	ppb	99
102) 1,2-Dclbenz	23.42	146	3587322	208.25	ppb	99
103) 1,2-Dibromo-3-chloropropan	25.27	157	405365	217.15	ppb	93
105) 1,2,4-Tcbenzene	27.37	180	1847847	225.79	ppb	97
106) Hexachlorobt	27.71	225	800445	321.87	ppb	95
107) Naphthalen	27.99	128	4674239	215.40	ppb	98
108) 1,2,3-Tclbenzene	28.59	180	1601589	217.67	ppb	98

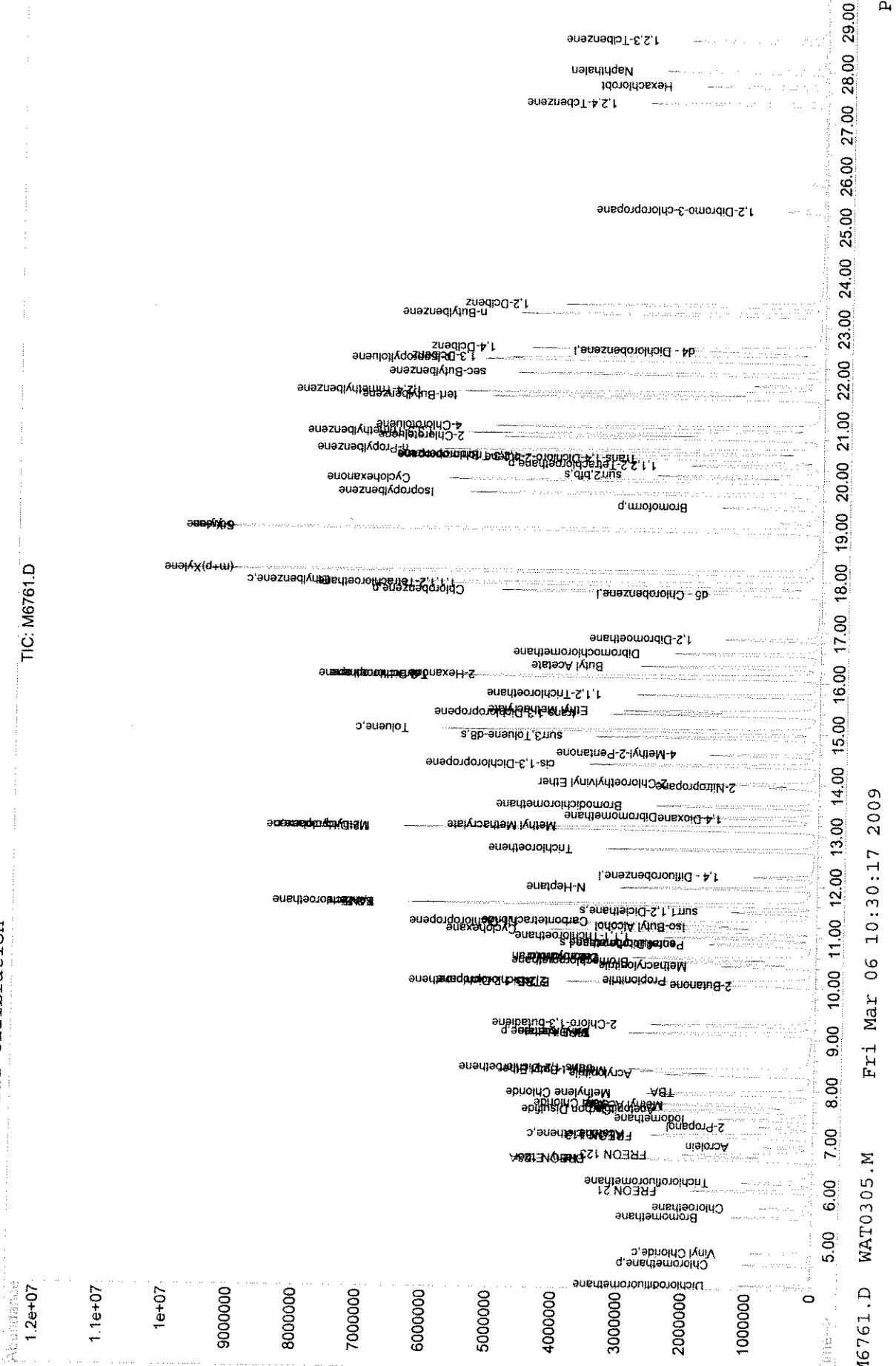
(#) = qualifier out of range (m) = manual integration  
 M6761.D WAT0305.M Fri Mar 06 10:30:15 2009

# Quantitation Report

Data File : J:\ACQDATA\MSVOA7\DATA\030509\M6761.D  
Acq On : 5 Mar 2009 9:16 pm Vial: 9  
Sample : 200 Operator: B.Bush  
Misc : Inst : MS #7  
MS Integration Params: RTEINT.P  
Quant Time: Mar 6 10:30 2009 Multiplr: 1.00

Quant Results File: WAT0305.RES

Method : J:\ACQDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
Title : 8260B.WATERS  
Last Update : Fri Mar 06 10:21:51 2009  
Response via : Initial Calibration



00170

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA7\DATA\040809\M7578.D  
 Acq On : 8 Apr 2009 10:19 am  
 Sample : CCV  
 Misc :  
 MS Integration Params: RTEINT.P

Vial: 1  
 Operator: B.Bush  
 Inst : MS #7  
 Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	% Diff	% Dev	Area%	Dev(min)
1 I	Pentafluorobenzene	1.000	1.000	0.0	93	0.04	
2	Dichlorodifluoromethane	0.556	0.506	9.0	81	0.03	
3 p	Chloromethane	0.735	0.758	-3.1	95	0.03	
4 c	Vinyl Chloride	0.559	0.526	5.9	90	0.03	
5	Bromomethane	0.508	0.409	19.5	73	0.03	
6	Chloroethane	0.467	0.433	7.3	90	0.03	
7	FREON 21	1.284	1.543	-20.2#	115	0.04	
8	Trichlorofluoromethane	0.725	0.783	-8.0	105	0.04	
9	Diethyl Ether	0.497	0.566	-13.9	107	0.04	
10	FREON 123A	0.850	0.953	-12.1	111	0.04	
11	FREON 123	0.850	0.992	-16.7	117	0.04	
12	Acrolein	0.066	0.079	-19.7	98	0.04	
13	FREON 113	0.500	0.506	-1.2	105	0.04	
14 c	1,1-Diclcethene	0.485	0.469	3.3	93	0.05	
15	Acetone	0.189	0.213	-12.7	111	0.03	
16	2-Propanol	0.031	0.043	-38.7#	124	0.05	
17	Iodomethane	1.089	0.934	14.2	79	0.05	
18	Carbon Disulfide	2.012	2.328	-15.7	106	0.05	
19	Acetonitrile	0.067	0.089	-32.8#	114	0.04	
20	Allyl Chloride	1.190	1.240	-4.2	96	0.04	
21	Methyl Acetate	0.623	0.877	-40.8#	121	0.05	
22	Methylene Chloride	0.658	0.697	-5.9	100	0.04	
23	TBA	0.042	0.059	-40.5#	119	0.05	
24	Acrylonitrile	0.205	0.255	-24.4#	109	0.05	
25	Methyl-t-Butyl Ether	1.528	1.811	-18.5	106	0.04	
26	trans-1,2-Dichloroethene	0.619	0.618	0.2	96	0.04	
27 p	1,1-Diclcethane	1.313	1.470	-12.0	107	0.05	
28	Vinyl Acetate	0.070	0.073	10.4% -4.3	104	0.05	
<del>29</del>	<del>DIPE</del>	<del>0.000</del>	<del>0.000</del>	<del>0.0</del>	<del>0#</del>	<del>9.12#</del>	
30	2-Chloro-1,3-butadiene	0.865	1.107	-28.0#	117	0.05	
31	Allyl Alcohol	0.000	0.000	0.0	107	0.04	
<del>32</del>	<del>ETBE</del>	<del>0.000</del>	<del>0.000</del>	<del>0.0</del>	<del>0#</del>	<del>10.08#</del>	
33	2,2-Dichloropropane	0.829	1.006	-21.4#	122	0.05	
34	2-Butanone	0.358	0.438	-22.3#	111	0.05	
35	cis-1,2-Dichloroethene	0.686	0.738	-7.6	100	0.05	
36	Propionitrile	0.075	0.095	-26.7#	109	0.05	
37	Methacrylonitrile	0.234	0.283	-20.9#	106	0.05	
38	Bromochloromethane	0.363	0.381	-5.0	93	0.05	
39 c	Chloroform	1.158	1.287	-11.1	102	0.05	
40	Tetrahydrofuran	0.198	0.244	-23.2#	114	0.06	
41	1,1,1-Trichloroethane	0.826	0.920	-11.4	110	0.05	
42 I	1,4 - Difluorobenzene	1.000	1.000	0.0	92	0.05	
43	Cyclohexane	0.640	0.742	-15.9	118	0.05	
44 s	surr4,Dibrflmethane	0.379	0.403	-6.3	100	0.05	
45	Carbontetrachloride	0.397	0.395	0.5	106	0.05	
46	1,1-Dichloropropene	0.502	0.511	-1.8	105	0.05	
47	Iso-Butyl Alcohol	0.015	0.019	-26.7#	113	0.05	
48 s	surr1,1,2-Diclcethane	0.359	0.380	-5.8	99	0.05	
49	Benzene	1.447	1.451	-0.3	101	0.05	

BB 4/8

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA7\DATA\040809\M7578.D  
 Acq On : 8 Apr 2009 10:19 am  
 Sample : CCV  
 Misc :  
 MS Integration Params: RTEINT.P

Vial: 1  
 Operator: B.Bush  
 Inst : MS #7  
 Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Diff	%Dev	Area	% Dev(min)
50	1,2-Dichloroethane	0.479	0.552	-15.2	106	0.05	
51	<del>TAME</del>	<del>0.000</del>	<del>0.000</del>	<del>0.0</del>	<del>0#</del>	<del>0.05</del>	
52	N-Heptane	0.439	0.427	2.7	116	0.05	
53	Trichloroethene	0.391	0.376	3.8	106	0.05	
54	Methylcyclohexane	0.479	0.588	-22.8#	119	0.05	
55 c	1,2-Diclpropane	0.498	0.531	-6.6	102	0.05	
56	Methyl Methacrylate	0.090	0.106	-17.8	110	0.06	
57	1,4-Dioxane	0.003	0.003	0.0	106	0.05	
58	Dibromomethane	0.275	0.305	-10.9	104	0.05	
59	Bromodichloromethane	0.539	0.595	-10.4	104	0.06	
60	2-Nitropropane	0.096	0.117	-21.9#	115	0.05	
61	2-Chloroethylvinyl Ether	0.230	0.315	-37.0#	127	0.05	
62	cis-1,3-Dichloropropene	0.718	0.795	-10.7	101	0.05	
63 I	d5 - Chlorobenzene	1.000	1.000	0.0	104	0.05	
64	4-Methyl-2-Pentanone	0.491	0.557	-13.4	115	0.05	
65 c	Toluene	1.519	1.372	9.7	105	0.05	
66	trans-1,3-Dichloropropene	0.652	0.673	-3.2	108	0.06	
67	Ethyl Methacrylate	0.570	0.604	-6.0	109	0.05	
68	1,1,2-Trichloroethane	0.328	0.333	-1.5	107	0.06	
69 s	surr3,Toluene-d8	1.169	1.116	4.5	94	0.05	
70 s	surr2,bfb	0.525	0.552	-5.1	106	0.06	
71	Tetrachloroethene	0.359	0.313	12.8	107	0.05	
72	2-Hexanone	0.349	0.393	-12.6	118	0.05	
73	1,3-Dichloropropene	0.679	0.692	-1.9	105	0.05	
74	Butyl Acetate	0.882	1.014	-15.0	116	0.06	
75	Dibromochloromethane	0.450	0.466	-3.6	107	0.06	
76	1,2-Dibromoethane	0.409	0.414	-1.2	106	0.05	
77 p	Chlorobenzene	1.059	0.957	9.6	105	0.05	
78	1,1,1,2-Tetrachloroethane	0.400	0.371	7.3	108	0.05	
79 c	Ethylbenzene	1.744	1.551	11.1	112	0.05	
80	(m+p)Xylene	0.635	0.567	10.7	107	0.05	
81	o-Xylene	0.641	0.599	6.6	108	0.05	
82	Styrene	1.051	1.012	3.7	107	0.05	
83 p	Bromoform	0.273	0.293	-7.3	108	0.05	
84	Isopropylbenzene	1.498	1.374	8.3	112	0.05	
85	Cyclohexanone	0.065	0.069	-6.2	107	0.06	
86 I	d4 - Dichlorobenzene	1.000	1.000	0.0	106	0.05	
87 p	1,1,2,2-Tetrachloroethane	1.050	1.033	1.6	109	0.05	
88	Trans-1,4-Dichloro-2-butene	0.228	0.236	-3.5	118	0.05	
89	1,2,3-Trichloropropene	0.263	0.262	0.4	110	0.05	
90	n-Propylbenzene	4.044	3.471	14.2	106	0.05	
91	Bromobenzene	0.962	0.884	8.1	107	0.05	
92	1,3,5-Trimethylbenzene	2.493	2.220	11.0	111	0.06	
93	2-Chlorotoluene	2.564	2.240	12.6	107	0.06	
94	4-Chlorotoluene	2.665	2.382	10.6	109	0.05	
95	tert-Butylbenzene	2.022	1.697	16.1	107	0.06	
96	1,2,4-Trimethylbenzene	2.515	2.231	11.3	107	0.06	
97	sec-Butylbenzene	2.889	2.429	15.9	106	0.05	

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : J:\ACQUATA\MSVOA7\DATA\040809\M7578.D Vial: 1  
 Acq On : 8 Apr 2009 10:19 am Operator: B.Bush  
 Sample : CCV Inst : MS #7  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : J:\ACQUATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	<i>40% off</i>	%Dev	Area%	Dev(min)
98	p-Isopropyltoluene	2.380	2.027		14.8	106	0.05
99	1,3-Dclbenz	1.630	1.486		8.8	108	0.06
100	1,4-Dclbenz	1.689	1.503		11.0	105	0.06
101	n-Butylbenzene	2.308	1.867		19.1	102	0.06
102	1,2-Dclbenz	1.579	1.491		5.6	110	0.06
103	1,2-Dibromo-3-chloropropane	0.174	0.182		-4.6	115	0.06
104	Nitrobenzene	0.000	0.000		0.0	110	0.06
105	1,2,4-Tcbenzene	0.761	0.707		7.1	110	0.06
106	Hexachlorobt	0.309	0.246	<i>3.7%</i>	<del>20.4</del>	102	0.05
107	Naphthalen	2.017	2.115		-4.9	116	0.06
108	1,2,3-Tclbenzene	0.684	0.631		7.7	109	0.07

Data File : J:\ACQUDATA\MSVOA7\DATA\040809\M7578.D  
 Acq On : 8 Apr 2009 10:19 am  
 Sample : CCV  
 Misc :

Vial: 1  
 Operator: B.Bush  
 Inst : MS #7  
 Multiplr: 1.00

MS Integration Params: RTEINT.P  
 Quant Time: Apr 8 10:49 2009

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.88	168	556888	50.00	ppb	0.04
42) 1,4 - Difluorobenzene	12.23	114	1061518	50.00	ppb	0.05
63) d5 - Chlorobenzene	17.78	117	1129959	50.00	ppb	0.05
86) d4 - Dichlorobenzene	22.56	152	559623	50.00	ppb	0.05

System Monitoring Compounds

44) surr4,Dibrflmethane	10.91	113	427881	53.21	ppb	0.05
Spiked Amount	50.000	Range	89 - 115	Recovery	=	106.42%
48) surr1,1,2-Diclcethane	11.53	65	403018	52.82	ppb	0.05
Spiked Amount	50.000	Range	80 - 120	Recovery	=	105.64%
69) surr3,Toluene-d8	14.96	98	1260890	47.73	ppb	0.05
Spiked Amount	50.000	Range	88 - 124	Recovery	=	95.46%
70) surr2,bfb	20.13	95	623272	52.53	ppb	0.06
Spiked Amount	50.000	Range	80 - 123	Recovery	=	105.06%

BB 4/8

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	4.25	85	281549	45.43	ppb	99
3) Chloromethane	4.65	50	422066	51.54	ppb	100
4) Vinyl Chloride	4.88	62	292744	46.99	ppb	96
5) Bromomethane	5.57	96	227945	40.27	ppb	99
6) Chloroethane	5.76	64	240994	46.36	ppb	100
7) FREON 21	6.09	67	859045	60.09	ppb	99
8) Trichlorofluoromethane	6.25	101	435885	54.02	ppb	100
9) Diethyl Ether	6.71	59	314924	56.85	ppb	98
10) FREON 123A	6.69	67	530938	56.07	ppb	96
11) FREON 123	6.78	83	552251	58.35	ppb	98
12) Acrolein	6.95	56	220874	298.77	ppb	97
13) FREON 113	7.14	101	281772	50.57	ppb	97
14) 1,1-Diclcethene	7.19	96	261062	48.37	ppb	97
15) Acetone	7.20	43	118642	56.23	ppb	100
16) 2-Propanol	7.34	45	481097	1397.84	ppb	99
17) Iodomethane	7.49	142	519985	42.89	ppb	99
18) Carbon Disulfide	7.65	76	1296704	57.87	ppb	100
19) Acetonitrile	7.68	41	247394	330.75	ppb	94
20) Allyl Chloride	7.78	41	690406	52.10	ppb	96
21) Methyl Acetate	7.75	43	488354	70.36	ppb	99
22) Methylene Chloride	7.97	84	388171	52.99	ppb	93
23) TBA	8.02	59	654349	1386.91	ppb	99
24) Acrylonitrile	8.36	53	710513	311.45	ppb	99
25) Methyl-t-Butyl Ether	8.41	73	1008378	59.25	ppb	98
26) trans-1,2-Dichloroethene	8.46	96	343890	49.88	ppb	96
27) 1,1-Diclcethane	9.17	63	818663	55.98	ppb	99
28) Vinyl Acetate	9.16	86	40759	55.20	ppb	67
30) 2-Chloro-1,3-butadiene	9.32	53	616616	64.00	ppb	94
33) 2,2-Dichloropropane	10.16	77	560044	60.62	ppb	97
34) 2-Butanone	10.08	43	243868	61.18	ppb	97
35) cis-1,2-Dichloroethene	10.13	96	411078	53.84	ppb	94
36) Propionitrile	10.20	54	265124	316.70	ppb	97
37) Methacrylonitrile	10.48	67	157844	60.61	ppb	91
38) Bromochloromethane	10.56	128	212287	52.54	ppb	95
39) Chloroform	10.63	83	716730	55.59	ppb	94

(#) = qualifier out of range (m) = manual integration  
 M7578.D WAT0305.M Wed Apr 08 10:49:42 2009

Data File : J:\ACQUDATA\MSVOA7\DATA\040809\M7578.D

Vial: 1

Acq On : 8 Apr 2009 10:19 am

Operator: B.Bush

Sample : CCV

Inst : MS #7

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Apr 8 10:49 2009

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)

Title : 8260B.WATERS

Last Update : Fri Mar 13 15:29:46 2009

Response via : Initial Calibration

DataAcq Meth : WAT0305

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
40) Tetrahydrofuran	10.63	42	135941	61.67	ppb	97
41) 1,1,1-Trichloroethane	11.03	97	512423	55.68	ppb	97
43) Cyclohexane	11.17	56	787831	57.98	ppb	97
45) Carbontetrachloride	11.33	117	418879	49.69	ppb	95
46) 1,1-Dichloropropene	11.30	75	542387	50.89	ppb	97
47) Iso-Butyl Alcohol	11.24	43	397391	1260.18	ppb	100
49) Benzene	11.68	78	1539743	50.11	ppb	100
50) 1,2-Dichloroethane	11.66	62	586392	57.62	ppb	97
52) N-Heptane	12.00	43	453280	62.29	ppb	94
53) Trichloroethene	12.76	95	399439	48.06	ppb	96
54) Methylcyclohexane	13.16	55	624580	61.47	ppb	97
55) 1,2-Dichloropropane	13.18	63	563982	53.37	ppb	99
56) Methyl Methacrylate	13.22	100	112771	59.02	ppb	90
57) 1,4-Dioxane	13.35	88	62657	1102.03	ppb	98
58) Dibromomethane	13.39	93	323531	55.36	ppb	96
59) Bromodichloromethane	13.62	83	631412	55.21	ppb	97
60) 2-Nitropropane	14.00	43	249160	121.69	ppb	99
61) 2-Chloroethylvinyl Ether	14.06	63	334228	68.59	ppb	99
62) cis-1,3-Dichloropropene	14.42	75	843954	55.38	ppb	100
64) 4-Methyl-2-Pentanone	14.63	43	628903	56.67	ppb	100
65) Toluene	15.09	91	1550747	45.17	ppb	99
66) trans-1,3-Dichloropropene	15.41	75	760705	51.62	ppb	99
67) Ethyl Methacrylate	15.47	69	682701	52.96	ppb	97
68) 1,1,2-Trichloroethane	15.80	83	376832	50.87	ppb	97
71) Tetrachloroethene	16.16	166	353462	43.56	ppb	98
72) 2-Hexanone	16.18	43	443866	56.29	ppb	99
73) 1,3-Dichloropropane	16.14	76	782272	50.96	ppb	93
74) Butyl Acetate	16.36	43	1145321	57.45	ppb	99
75) Dibromochloromethane	16.62	129	526253	51.79	ppb	97
76) 1,2-Dibromoethane	16.90	107	467966	50.67	ppb	96
77) Chlorobenzene	17.84	112	1081365	45.19	ppb	100
78) 1,1,1,2-Tetrachloroethane	17.96	131	419048	46.38	ppb	99
79) Ethylbenzene	18.00	91	1752643	44.46	ppb	99
80) (m+p)Xylene	18.21	106	1281326	89.24	ppb	97
81) o-Xylene	19.04	106	676995	46.75	ppb	96
82) Styrene	19.05	104	1143728	48.15	ppb	95
83) Bromoform	19.50	173	330710	53.66	ppb	98
84) Isopropylbenzene	19.76	105	1552077	45.85	ppb	97
85) Cyclohexanone	20.03	55	1551524	1059.41	ppb	98
87) 1,1,2,2-Tetrachloroethane	20.32	83	577931	49.20	ppb	99
88) Trans-1,4-Dichloro-2-buten	20.43	53	132224	51.85	ppb	84
89) 1,2,3-Trichloropropane	20.47	110	146800	49.86	ppb	91
90) n-Propylbenzene	20.61	91	1942223	42.91	ppb	97
91) Bromobenzene	20.50	156	494642	45.95	ppb	97
92) 1,3,5-Trimethylbenzene	20.94	105	1242108	44.51	ppb	100
93) 2-Chlorotoluene	20.86	91	1253544	43.69	ppb	99
94) 4-Chlorotoluene	21.07	91	1332832	44.69	ppb	100
95) tert-Butylbenzene	21.66	119	949471	41.95	ppb	96
96) 1,2,4-Trimethylbenzene	21.75	105	1248492	44.35	ppb	99
97) sec-Butylbenzene	22.12	105	1359336	42.04	ppb	95

(#)=qualifier out of range (m)=manual integration

M7578.D WAT0305.M

Wed Apr 08 10:49:42 2009



Data File : J:\ACQUDATA\MSVOA7\DATA\040809\M7578.D

Vial: 1

Acq On : 8 Apr 2009 10:19 am

Operator: B.Bush

Sample : CCV

Inst : MS #7

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Apr 8 10:49 2009

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)

Title : 8260B.WATERS

Last Update : Fri Mar 13 15:29:46 2009

Response via : Initial Calibration

DataAcq Meth : WAT0305

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
98) p-Isopropyltoluene	22.38	119	1134232	42.57	ppb	99
99) 1,3-Dclbenz	22.44	146	831847	45.59	ppb	99
100) 1,4-Dclbenz	22.62	146	841168	44.49	ppb	96
101) n-Butylbenzene	23.30	91	1044798	40.44	ppb	98
102) 1,2-Dclbenz	23.49	146	834252	47.21	ppb	98
103) 1,2-Dibromo-3-chloropropan	25.34	157	101982	52.45	ppb	93
105) 1,2,4-Tcbenzene	27.43	180	395776	46.48	ppb	98
106) Hexachlorobt	27.76	225	137902	51.87	ppb	98
107) Naphthalen	28.06	128	1183519	52.42	ppb	99
108) 1,2,3-Tclbenzene	28.66	180	352911	46.10	ppb	98

(#) = qualifier out of range (m) = manual integration

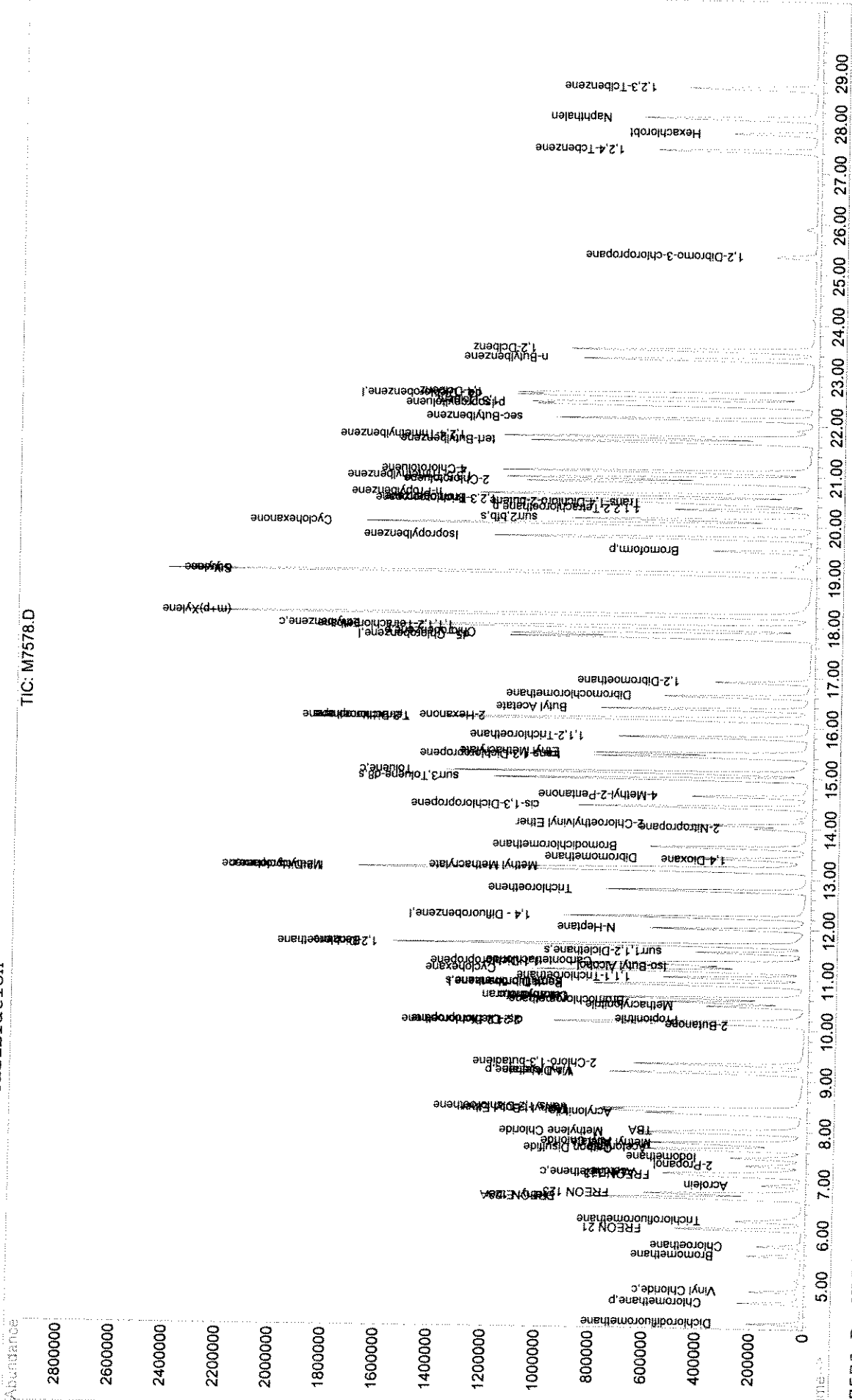
Quantitation Report

Data File : J:\ACQDATA\MSVOA7\DATA\040809\M7578.D  
Acq On : 8 Apr 2009 10:19 am  
Sample : CCV  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Apr 8 10:49 2009

Vial: 1  
Operator: B.Bush  
Inst : MS #7  
Multiplr: 1.00

Quant Results File: WAT0305.RE5

Method : J:\ACQDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
Title : 8260B.WATERS  
Last Update : Fri Mar 13 15:29:46 2009  
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA7\DATA\040809\M7599.D  
 Acq On : 8 Apr 2009 11:49 pm  
 Sample : CCV  
 Misc :  
 MS Integration Params: RTEINT.P

Vial: 20  
 Operator: B.Bush  
 Inst : MS #7  
 Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
1 I	Pentafluorobenzene	1.000	1.000	0.0	104	0.04	
2	Dichlorodifluoromethane	0.556	0.462	16.9	83	0.02	
3 p	Chloromethane	0.735	0.718	2.3	100	0.02	
4 c	Vinyl Chloride	0.559	0.517	7.5	99	0.02	
5	Bromomethane	0.508	0.407	19.9	82	0.03	
6	Chloroethane	0.467	0.419	10.3	97	0.02	
7	FREON 21	1.284	1.315	-2.4	110	0.03	
8	Trichlorofluoromethane	0.725	0.712	1.8	107	0.03	
9	Diethyl Ether	0.497	0.550	-10.7	116	0.03	
10	FREON 123A	0.850	0.850	0.0	111	0.03	
11	FREON 123	0.850	0.874	-2.8	116	0.03	
12	Acrolein	0.066	0.067	-1.5	93	0.04	
13	FREON 113	0.500	0.492	1.6	114	0.04	
14 c	1,1-Diclcethene	0.485	0.454	6.4	101	0.04	
15	Acetone	0.189	0.200	-5.8	117	0.03	
16	2-Propanol	0.031	0.040	-29.0#	128	0.04	
17	Iodomethane	1.089	0.983	9.7	92	0.04	
18	Carbon Disulfide	2.012	2.212	-9.9	113	0.04	
19	Acetonitrile	0.067	0.083	-23.9#	119	0.04	
20	Allyl Chloride	1.190	1.150	3.4	100	0.04	
21	Methyl Acetate	0.623	0.744	-19.4	114	0.04	
22	Methylene Chloride	0.658	0.630	4.3	101	0.04	
23	TBA	0.042	0.052	-23.8#	118	0.04	
24	Acrylonitrile	0.205	0.248	-21.0#	118	0.04	
25	Methyl-t-Butyl Ether	1.528	1.679	-9.9	110	0.04	
26	trans-1,2-Dichloroethene	0.619	0.568	8.2	99	0.03	
27 p	1,1-Diclcethane	1.313	1.304	0.7	106	0.04	
28	Vinyl Acetate	0.070	0.061	6.7	12.9	97	0.04
<del>29</del>	<del>DIPE</del>	<del>0.000</del>	<del>0.000</del>	<del>0.0</del>	<del>0#</del>	<del>9.12#</del>	
30	2-Chloro-1,3-butadiene	0.865	0.963	-11.3	114	0.04	
31	Allyl Alcohol	0.000	0.000	0.0	109	0.04	
<del>32</del>	<del>ETBE</del>	<del>0.000</del>	<del>0.000</del>	<del>0.0</del>	<del>0#</del>	<del>0.04</del>	
33	2,2-Dichloropropane	0.829	0.779	6.0	106	0.04	
34	2-Butanone	0.358	0.384	-7.3	109	0.05	
35	cis-1,2-Dichloroethene	0.686	0.671	2.2	102	0.05	
36	Propionitrile	0.075	0.086	-14.7	109	0.04	
37	Methacrylonitrile	0.234	0.261	-11.5	109	0.04	
38	Bromochloromethane	0.363	0.365	-0.6	100	0.05	
39 c	Chloroform	1.158	1.213	-4.7	107	0.04	
40	Tetrahydrofuran	0.198	0.217	-9.6	113	0.05	
41	1,1,1-Trichloroethane	0.826	0.813	1.6	109	0.05	
42 I	1,4 - Difluorobenzene	1.000	1.000	0.0	104	0.04	
43	Cyclohexane	0.640	0.645	-0.8	116	0.04	
44 s	surr4,Dibrflmethane	0.379	0.386	-1.8	108	0.04	
45	Carbontetrachloride	0.397	0.373	6.0	113	0.04	
46	1,1-Dichloropropene	0.502	0.465	7.4	108	0.04	
47	Iso-Butyl Alcohol	0.015	0.017	-13.3	116	0.05	
48 s	surr1,1,2-Diclcethane	0.359	0.364	-1.4	107	0.05	
49	Benzene	1.447	1.321	8.7	104	0.05	

BB 4/10

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA7\DATA\040809\M7599.D  
 Acq On : 8 Apr 2009 11:49 pm  
 Sample : CCV  
 Misc :  
 MS Integration Params: RTEINT.P

Vial: 20  
 Operator: B.Bush  
 Inst : MS #7  
 Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
50	1,2-Dichloroethane	0.479	0.493	-2.9	107	0.05
51	<del>TAME</del>	<del>0.000</del>	<del>0.000</del>	<del>0.0</del>	<del>0#</del>	<del>0.03</del>
52	N-Heptane	0.439	0.384	12.5	118	0.04
53	Trichloroethene	0.391	0.345	11.8	110	0.04
54	Methylcyclohexane	0.479	0.465	2.9	106	0.04
55 c	1,2-Dicloropropane	0.498	0.475	4.6	103	0.04
56	Methyl Methacrylate	0.090	0.090	0.0	106	0.05
57	1,4-Dioxane	0.003	0.003	0.0	116	0.04
58	Dibromomethane	0.275	0.274	0.4	106	0.04
59	Bromodichloromethane	0.539	0.549	-1.9	108	0.05
60	2-Nitropropane	0.096	0.106	-10.4	117	0.05
61	2-Chloroethylvinyl Ether	0.230	0.287	-24.8#	131	0.04
62	cis-1,3-Dichloropropene	0.718	0.707	1.5	102	0.04
63 I	d5 - Chlorobenzene	1.000	1.000	0.0	109	0.04
64	4-Methyl-2-Pentanone	0.491	0.518	-5.5	112	0.04
65 c	Toluene	1.519	1.344	11.5	108	0.05
66	trans-1,3-Dichloropropene	0.652	0.637	2.3	107	0.05
67	Ethyl Methacrylate	0.570	0.579	-1.6	110	0.04
68	1,1,2-Trichloroethane	0.328	0.321	2.1	108	0.05
69 s	surr3,Toluene-d8	1.169	1.173	-0.3	104	0.04
70 s	surr2,bfb	0.525	0.556	-5.9	112	0.05
71	Tetrachloroethene	0.359	0.315	12.3	113	0.04
72	2-Hexanone	0.349	0.366	-4.9	116	0.04
73	1,3-Dichloropropene	0.679	0.674	0.7	108	0.04
74	Butyl Acetate	0.882	0.904	-2.5	109	0.05
75	Dibromochloromethane	0.450	0.458	-1.8	111	0.05
76	1,2-Dibromoethane	0.409	0.402	1.7	108	0.04
77 p	Chlorobenzene	1.059	0.986	6.9	114	0.04
78	1,1,1,2-Tetrachloroethane	0.400	0.371	7.3	113	0.04
79 c	Ethylbenzene	1.744	1.531	12.2	117	0.04
80	(m+p)Xylene	0.635	0.562	11.5	111	0.04
81	o-Xylene	0.641	0.581	9.4	110	0.04
82	Styrene	1.051	0.987	6.1	110	0.05
83 p	Bromoform	0.273	0.272	0.4	106	0.04
84	Isopropylbenzene	1.498	1.323	11.7	114	0.04
85	Cyclohexanone	0.065	0.052	20.0#	84	0.05
86 I	d4 - Dichlorobenzene	1.000	1.000	0.0	116	0.04
87 p	1,1,2,2-Tetrachloroethane	1.050	0.963	8.3	112	0.04
88	Trans-1,4-Dichloro-2-butene	0.228	0.202	11.4	111	0.04
89	1,2,3-Trichloropropane	0.263	0.241	8.4	111	0.04
90	n-Propylbenzene	4.044	3.258	19.4	110	0.04
91	Bromobenzene	0.962	0.842	12.5	112	0.05
92	1,3,5-Trimethylbenzene	2.493	2.058	17.4	113	0.05
93	2-Chlorotoluene	2.564	2.066	19.4	109	0.05
94	4-Chlorotoluene	2.665	2.198	17.5	110	0.04
95	tert-Butylbenzene	2.022	1.659	18.0	115	0.05
96	1,2,4-Trimethylbenzene	2.515	2.117	15.8	112	0.05
97	sec-Butylbenzene	2.889	2.325	19.5	112	0.04

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : J:\ACQUATA\MSVOA7\DATA\040809\M7599.D Vial: 20  
 Acq On : 8 Apr 2009 11:49 pm Operator: B.Bush  
 Sample : CCV Inst : MS #7  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : J:\ACQUATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
98 p-Isopropyltoluene	2.380	1.990	16.4	114	0.05
99 1,3-Dclbenz	1.630	1.435	12.0	114	0.05
100 1,4-Dclbenz	1.689	1.441	14.7	111	0.05
101 n-Butylbenzene	2.308	1.878	18.6	112	0.05
102 1,2-Dclbenz	1.579	1.386	12.2	113	0.05
103 1,2-Dibromo-3-chloropropane	0.174	0.160	8.0	111	0.06
104 Nitrobenzene	0.000	0.000	0.0	102	0.06
105 1,2,4-Tcbenzene	0.761	0.674	11.4	115	0.05
106 Hexachlorobt	0.309	0.263	10.9	120	0.04
107 Naphthalen	2.017	1.921	4.8	116	0.06
108 1,2,3-Tclbenzene	0.684	0.605	11.5	115	0.06

Data File : J:\ACQUDATA\MSVOA7\DATA\040809\M7599.D  
 Acq On : 8 Apr 2009 11:49 pm  
 Sample : CCV  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Apr 9 0:20 2009

Vial: 20  
 Operator: B.Bush  
 Inst : MS #7  
 Multiplr: 1.00

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.88	168	623143	50.00	ppb	0.04
42) 1,4 - Difluorobenzene	12.22	114	1198101	50.00	ppb	0.04
63) d5 - Chlorobenzene	17.77	117	1187481	50.00	ppb	0.04
86) d4 - Dichlorobenzene	22.55	152	615844	50.00	ppb	0.04

System Monitoring Compounds

44) surr4, Dibrflmethane	10.90	113	462964	51.01	ppb	0.04
Spiked Amount	50.000	Range 89 - 115	Recovery	=	102.02%	
48) surr1, 1,2-Dicethane	11.53	65	436378	50.67	ppb	0.05
Spiked Amount	50.000	Range 80 - 120	Recovery	=	101.34%	
69) surr3, Toluene-d8	14.95	98	1392505	50.15	ppb	0.04
Spiked Amount	50.000	Range 88 - 124	Recovery	=	100.30%	
70) surr2, bfb	20.11	95	660389	52.96	ppb	0.05
Spiked Amount	50.000	Range 80 - 123	Recovery	=	105.92%	

BB 4/10

Target Compounds

Qvalue

2) Dichlorodifluoromethane	4.24	85	288062	41.54	ppb	100
3) Chloromethane	4.64	50	447264	48.81	ppb	96
4) Vinyl Chloride	4.87	62	321928	46.18	ppb	98
5) Bromomethane	5.57	96	253826	40.07	ppb	98
6) Chloroethane	5.74	64	260829	44.84	ppb	97
7) FREON 21	6.08	67	819514	51.23	ppb	97
8) Trichlorofluoromethane	6.24	101	443683	49.14	ppb	98
9) Diethyl Ether	6.70	59	342421	55.24	ppb	99
10) FREON 123A	6.68	67	529544	49.98	ppb	97
11) FREON 123	6.77	83	544584	51.42	ppb	100
12) Acrolein	6.95	56	210231	254.14	ppb	95
13) FREON 113	7.13	101	306664	49.18	ppb	98
14) 1,1-Dicethene	7.17	96	282938	46.85	ppb	99
15) Acetone	7.19	43	124882	52.89	ppb	# 88
16) 2-Propanol	7.33	45	495166	1285.75	ppb	98
17) Iodomethane	7.48	142	612266	45.13	ppb	93
18) Carbon Disulfide	7.64	76	1378511	54.98	ppb	100
19) Acetonitrile	7.68	41	259180	309.67	ppb	94
20) Allyl Chloride	7.77	41	716694	48.34	ppb	100
21) Methyl Acetate	7.74	43	463733	59.71	ppb	97
22) Methylene Chloride	7.97	84	392508	47.89	ppb	93
23) TBA	8.01	59	647395	1226.28	ppb	96
24) Acrylonitrile	8.35	53	772397	302.58	ppb	99
25) Methyl-t-Butyl Ether	8.41	73	1046135	54.94	ppb	98
26) trans-1,2-Dichloroethene	8.44	96	353830	45.86	ppb	94
27) 1,1-Dicethane	9.15	63	812499	49.66	ppb	99
28) Vinyl Acetate	9.14	86	37888	45.67	ppb	95
30) 2-Chloro-1,3-butadiene	9.31	53	600366	55.69	ppb	99
33) 2,2-Dichloropropane	10.15	77	485208	46.94	ppb	95
34) 2-Butanone	10.08	43	239391	53.67	ppb	94
35) cis-1,2-Dichloroethene	10.13	96	417981	48.92	ppb	99
36) Propionitrile	10.19	54	266400	284.39	ppb	93
37) Methacrylonitrile	10.46	67	162418	55.74	ppb	93
38) Bromochloromethane	10.55	128	227384	50.30	ppb	86
39) Chloroform	10.62	83	756086	52.41	ppb	100

(#) = qualifier out of range (m) = manual integration  
 M7599.D WAT0305.M Thu Apr 09 00:20:08 2009

Data File : J:\ACQUDATA\MSVOA7\DATA\040809\M7599.D

Acq On : 8 Apr 2009 11:49 pm

Sample : CCV

Misc :

MS Integration Params: RTEINT.P

Quant Time: Apr 9 0:20 2009

Vial: 20

Operator: B.Bush

Inst : MS #7

Multiplr: 1.00

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)

Title : 8260B.WATERS

Last Update : Fri Mar 13 15:29:46 2009

Response via : Initial Calibration

DataAcq Meth : WAT0305

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
40) Tetrahydrofuran	10.62	42	135313	54.86	ppb	92
41) 1,1,1-Trichloroethane	11.03	97	506756	49.21	ppb	95
43) Cyclohexane	11.15	56	772358	50.36	ppb	97
45) Carbontetrachloride	11.32	117	446559	46.93	ppb	99
46) 1,1-Dichloropropene	11.28	75	557389	46.33	ppb	96
47) Iso-Butyl Alcohol	11.23	43	408513	1147.76	ppb	97
49) Benzene	11.68	78	1582997	45.64	ppb	99
50) 1,2-Dichloroethane	11.66	62	590596	51.42	ppb	98
52) N-Heptane	11.99	43	459697	55.84	ppb	98
53) Trichloroethene	12.75	95	413256	44.05	ppb	97
54) Methylcyclohexane	13.15	55	556548	48.53	ppb	99
55) 1,2-Dicloropropane	13.17	63	569168	47.72	ppb	99
56) Methyl Methacrylate	13.20	100	108338	50.23	ppb	95
57) 1,4-Dioxane	13.34	88	68547	1068.19	ppb	97
58) Dibromomethane	13.38	93	328714	49.83	ppb	94
59) Bromodichloromethane	13.61	83	657949	50.97	ppb	99
60) 2-Nitropropane	13.99	43	254856	110.28	ppb	96
61) 2-Chloroethylvinyl Ether	14.05	63	343784	62.51	ppb	95
62) cis-1,3-Dichloropropene	14.41	75	847075	49.25	ppb	99
64) 4-Methyl-2-Pentanone	14.61	43	614953	52.73	ppb	99
65) Toluene	15.09	91	1595670	44.23	ppb	98
66) trans-1,3-Dichloropropene	15.40	75	756279	48.83	ppb	99
67) Ethyl Methacrylate	15.46	69	687115	50.72	ppb	94
68) 1,1,2-Trichloroethane	15.79	83	380675	48.90	ppb	97
71) Tetrachloroethene	16.15	166	374589	43.93	ppb	95
72) 2-Hexanone	16.17	43	434317	52.41	ppb	99
73) 1,3-Dichloropropane	16.13	76	800244	49.61	ppb	95
74) Butyl Acetate	16.35	43	1072988	51.22	ppb	98
75) Dibromochloromethane	16.60	129	544160	50.96	ppb	100
76) 1,2-Dibromoethane	16.89	107	477009	49.15	ppb	99
77) Chlorobenzene	17.83	112	1170690	46.55	ppb	99
78) 1,1,1,2-Tetrachloroethane	17.95	131	440212	46.37	ppb	99
79) Ethylbenzene	17.98	91	1817759	43.88	ppb	98
80) (m+p)Xylene	18.20	106	1334138	88.42	ppb	99
81) o-Xylene	19.03	106	689858	45.33	ppb	95
82) Styrene	19.05	104	1172287	46.96	ppb	99
83) Bromoform	19.49	173	322916	49.86	ppb	100
84) Isopropylbenzene	19.75	105	1571177	44.16	ppb	96
85) Cyclohexanone	20.01	55	1224262	795.45	ppb	97
87) 1,1,2,2-Tetrachloroethane	20.31	83	593104	45.88	ppb	99
88) Trans-1,4-Dichloro-2-buten	20.42	53	124478	44.36	ppb	75
89) 1,2,3-Trichloropropane	20.46	110	148340	45.79	ppb	90
90) n-Propylbenzene	20.60	91	2006347	40.28	ppb	98
91) Bromobenzene	20.50	156	518630	43.78	ppb	91
92) 1,3,5-Trimethylbenzene	20.93	105	1267101	41.26	ppb	97
93) 2-Chlorotoluene	20.85	91	1272292	40.29	ppb	100
94) 4-Chlorotoluene	21.06	91	1353890	41.25	ppb	99
95) tert-Butylbenzene	21.65	119	1021611	41.02	ppb	98
96) 1,2,4-Trimethylbenzene	21.74	105	1304014	42.10	ppb	100
97) sec-Butylbenzene	22.10	105	1431833	40.24	ppb	96

(#)=qualifier out of range (m)=manual integration

M7599.D WAT0305.M

Thu Apr 09 00:20:09 2009

Data File : J:\ACQUDATA\MSVOA7\DATA\040809\M7599.D Vial: 20  
 Acq On : 8 Apr 2009 11:49 pm Operator: B.Bush  
 Sample : CCV Inst : MS #7  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Apr 9 0:20 2009 Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
98) p-Isopropyltoluene	22.38	119	1225287	41.79	ppb	98
99) 1,3-Dclbenz	22.43	146	883908	44.02	ppb	99
100) 1,4-Dclbenz	22.61	146	887307	42.65	ppb	98
101) n-Butylbenzene	23.29	91	1156675	40.68	ppb	99
102) 1,2-Dclbenz	23.47	146	853753	43.91	ppb	100
103) 1,2-Dibromo-3-chloropropan	25.34	157	98270	45.93	ppb	88
105) 1,2,4-Tcbenzene	27.42	180	414966	44.28	ppb	99
106) Hexachlorobt	27.75	225	161862	55.45	ppb	94
107) Naphthalen	28.06	128	1183258	47.63	ppb	100
108) 1,2,3-Tclbenzene	28.65	180	372409	44.21	ppb	99

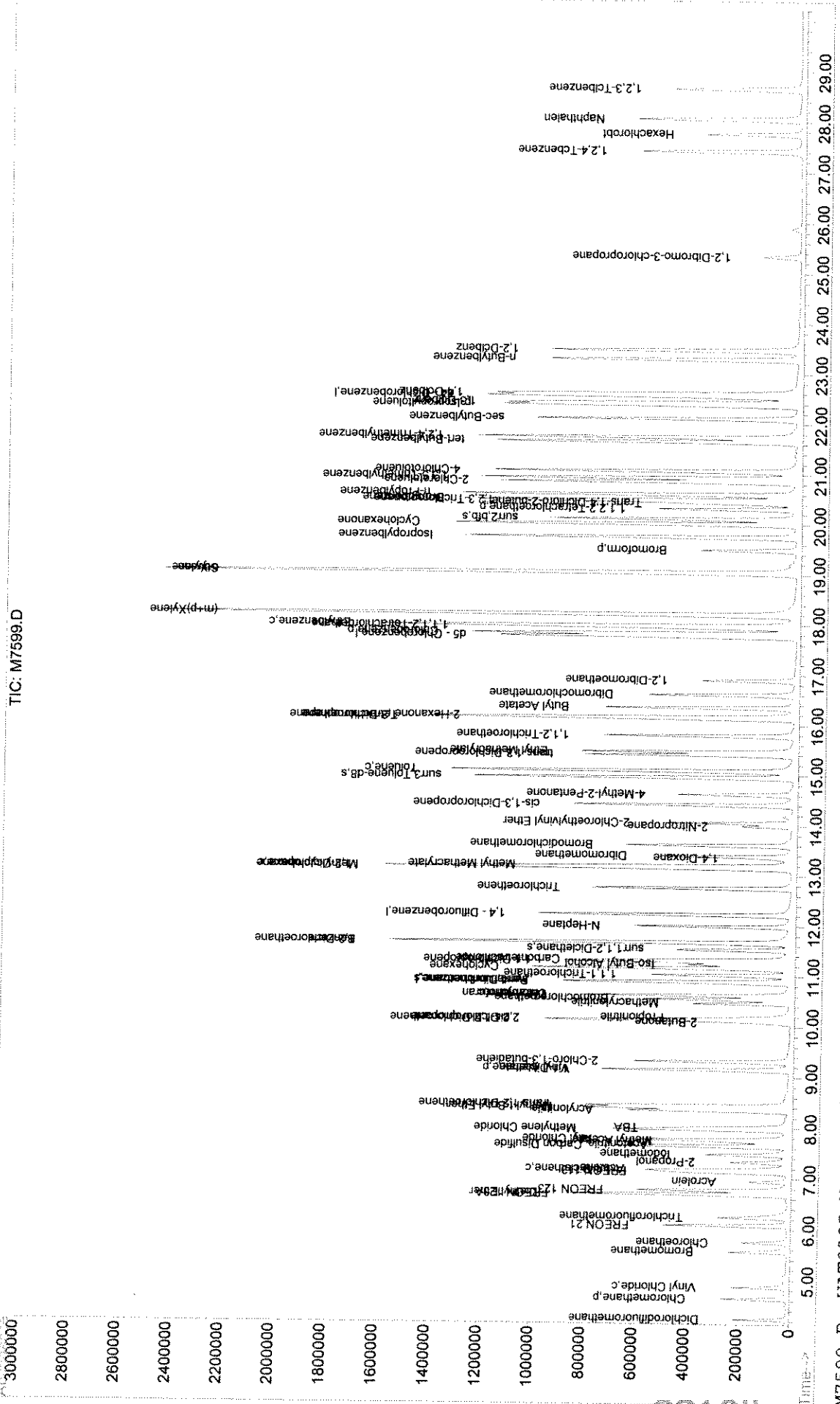
(#) = qualifier out of range (m) = manual integration  
 M7599.D WAT0305.M Thu Apr 09 00:20:09 2009



Quantitation Report

Data File : J:\ACQDATA\MSVOA7\DATA\040809\M7599.D Vial: 20  
Acq On : 8 Apr 2009 11:49 pm Operator: B.Bush  
Sample : CCV Inst : MS #7  
Misc : Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Apr 9 0:20 2009 Quant Results File: WAT0305.RES

Method : J:\ACQDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
Title : 8260B.WATERS  
Last Update : Fri Mar 13 15:29:46 2009  
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA7\DATA\040909\M7618.D  
 Acq On : 9 Apr 2009 12:11 pm  
 Sample : CCV  
 Misc :  
 MS Integration Params: RTEINT.P

Vial: 1  
 Operator: B.Bush  
 Inst : MS #7  
 Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	Pentafluorobenzene	1.000	1.000	0.0	108	0.02
2	Dichlorodifluoromethane	0.556	0.742	-33.5#	139	0.02
3 p	Chloromethane	0.735	0.826	-12.4	121	0.02
4 c	Vinyl Chloride	0.559	0.618	-10.6	123	0.01
5	Bromomethane	0.508	0.473	6.9	99	0.02
6	Chloroethane	0.467	0.497	-6.4	120	0.01
7	FREON 21	1.284	1.364	-6.2	119	0.02
8	Trichlorofluoromethane	0.725	0.791	-9.1	124	0.02
9	Diethyl Ether	0.497	0.546	-9.9	120	0.02
10	FREON 123A	0.850	0.871	-2.5	119	0.02
11	FREON 123	0.850	0.910	-7.1	126	0.03
12	Acrolein	0.066	0.074	-12.1	106	0.03
13	FREON 113	0.500	0.536	-7.2	130	0.02
14 c	1,1-Diclcethene	0.485	0.513	-5.8	119	0.03
15	Acetone	0.189	0.205	-8.5	125	0.01
16	2-Propanol	0.031	0.042	-35.5#	142	0.03
17	Iodomethane	1.089	0.901	17.3	88	0.03
18	Carbon Disulfide	2.012	2.081	-3.4	111	0.03
19	Acetonitrile	0.067	0.078	-16.4	117	0.02
20	Allyl Chloride	1.190	1.195	-0.4	108	0.02
21	Methyl Acetate	0.623	0.818	-31.3#	131	0.03
22	Methylene Chloride	0.658	0.000	100.0#	43.0#	-7.93#
23	TBA	0.042	0.059	-40.5#	140	0.03
24	Acrylonitrile	0.205	0.250	-22.0#	124	0.02
25	Methyl-t-Butyl Ether	1.528	1.617	-5.8	110	0.02
26	trans-1,2-Dichloroethene	0.619	0.622	-0.5	113	0.02
27 p	1,1-Diclcethane	1.313	1.398	-6.5	118	0.02
28	Vinyl Acetate	0.070	0.061	8.3	12.9	101
29	DIPE	0.000	0.000	0.0	0#	9.12#
30	2-Chloro-1,3-butadiene	0.865	0.891	-3.0	110	0.03
31	Allyl Alcohol	0.000	0.000	0.0	111	0.02
32	ETBE	0.000	0.000	0.0	0#	0.02
33	2,2-Dichloropropane	0.829	1.014	-22.3#	144	0.02
34	2-Butanone	0.358	0.425	-18.7	125	0.03
35	cis-1,2-Dichloroethene	0.686	0.706	-2.9	112	0.03
36	Propionitrile	0.075	0.089	-18.7	119	0.03
37	Methacrylonitrile	0.234	0.256	-9.4	111	0.02
38	Bromochloromethane	0.363	0.384	-5.8	109	0.03
39 c	Chloroform	1.158	1.274	-10.0	117	0.02
40	Tetrahydrofuran	0.198	0.227	-14.6	123	0.04
41	1,1,1-Trichloroethane	0.826	0.937	-13.4	130	0.03
42 I	1,4 - Difluorobenzene	1.000	1.000	0.0	105	0.03
43	Cyclohexane	0.640	0.688	-7.5	125	0.02
44 s	surr4,Dibrflmethane	0.379	0.397	-4.7	112	0.03
45	Carbontetrachloride	0.397	0.426	-7.3	130	0.03
46	1,1-Dichloropropene	0.502	0.539	-7.4	126	0.03
47	Iso-Butyl Alcohol	0.015	0.019	-26.7#	134	0.03
48 s	surr1,1,2-Diclcethane	0.359	0.380	-5.8	113	0.03
49	Benzene	1.447	1.482	-2.4	118	0.03

BB 4/9

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA7\DATA\040909\M7618.D  
 Acq On : 9 Apr 2009 12:11 pm  
 Sample : CCV  
 Misc :  
 MS Integration Params: RTEINT.P

Vial: 1  
 Operator: B.Bush  
 Inst : MS #7  
 Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
50	1,2-Dichloroethane	0.479	0.522	-9.0	114	0.03
<del>51</del>	<del>TAME</del>	<del>0.000</del>	<del>0.000</del>	<del>0.0</del>	<del>0#</del>	<del>0.02</del>
52	N-Heptane	0.439	0.510	49.4 -16.2	158	0.02
53	Trichloroethene	0.391	0.392	-0.3	126	0.02
54	Methylcyclohexane	0.479	0.507	-5.8	117	0.02
55 c	1,2-Diclp propane	0.498	0.512	-2.8	113	0.02
56	Methyl Methacrylate	0.090	0.097	-7.8	115	0.03
57	1,4-Dioxane	0.003	0.003	0.0	129	0.02
58	Dibromomethane	0.275	0.287	-4.4	112	0.02
59	Bromodichloromethane	0.539	0.575	-6.7	114	0.03
60	2-Nitropropane	0.096	0.110	-14.6	123	0.02
61	2-Chloroethylvinyl Ether	0.230	0.296	-28.7#	136	0.02
62	cis-1,3-Dichloropropene	0.718	0.778	-8.4	113	0.02
63 I	d5 - Chlorobenzene	1.000	1.000	0.0	111	0.02
64	4-Methyl-2-Pentanone	0.491	0.571	-16.3	126	0.02
65 c	Toluene	1.519	1.503	1.1	123	0.03
66	trans-1,3-Dichloropropene	0.652	0.701	-7.5	120	0.03
67	Ethyl Methacrylate	0.570	0.625	-9.6	121	0.02
68	1,1,2-Trichloroethane	0.328	0.343	-4.6	118	0.03
69 s	surr3,Toluene-d8	1.169	1.234	-5.6	111	0.02
70 s	surr2,bfb	0.525	0.568	-8.2	117	0.03
71	Tetrachloroethene	0.359	0.375	-4.5	137	0.02
72	2-Hexanone	0.349	0.408	-16.9	132	0.02
73	1,3-Dichloropropene	0.679	0.713	-5.0	116	0.02
74	Butyl Acetate	0.882	0.983	-11.5	121	0.03
75	Dibromochloromethane	0.450	0.483	-7.3	119	0.03
76	1,2-Dibromoethane	0.409	0.431	-5.4	118	0.02
77 p	Chlorobenzene	1.059	1.047	1.1	123	0.02
78	1,1,1,2-Tetrachloroethane	0.400	0.398	0.5	124	0.02
79 c	Ethylbenzene	1.744	1.749	-0.3	136	0.02
80	(m+p)Xylene	0.635	0.658	-3.6	133	0.02
81	o-Xylene	0.641	0.638	0.5	124	0.02
82	Styrene	1.051	1.056	-0.5	120	0.02
83 p	Bromoform	0.273	0.294	-7.7	116	0.02
84	Isopropylbenzene	1.498	1.532	-2.3	134	0.03
85	Cyclohexanone	0.065	0.075	-15.4	125	0.03
86 I	d4 - Dichlorobenzene	1.000	1.000	0.0	118	0.03
87 p	1,1,2,2-Tetrachloroethane	1.050	0.994	5.3	118	0.02
88	Trans-1,4-Dichloro-2-butene	0.228	0.221	3.1	124	0.03
89	1,2,3-Trichloropropene	0.263	0.243	7.6	114	0.02
90	n-Propylbenzene	4.044	3.746	7.4	129	0.02
91	Bromobenzene	0.962	0.896	6.9	121	0.03
92	1,3,5-Trimethylbenzene	2.493	2.320	6.9	130	0.03
93	2-Chlorotoluene	2.564	2.232	12.9	120	0.03
94	4-Chlorotoluene	2.665	2.371	11.0	121	0.03
95	tert-Butylbenzene	2.022	1.855	8.3	131	0.03
96	1,2,4-Trimethylbenzene	2.515	2.408	4.3	130	0.03
97	sec-Butylbenzene	2.889	2.655	8.1	130	0.02

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA7\DATA\040909\M7618.D Vial: 1  
 Acq On : 9 Apr 2009 12:11 pm Operator: B.Bush  
 Sample : CCV Inst : MS #7  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : J:\ACQUDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
98	p-Isopropyltoluene	2.380	2.294	3.6	134	0.03
99	1,3-Dclbenz	1.630	1.522	6.6	124	0.03
100	1,4-Dclbenz	1.689	1.555	7.9	122	0.03
101	n-Butylbenzene	2.308	2.220	3.8	135	0.03
102	1,2-Dclbenz	1.579	1.484	6.0	123	0.03
103	1,2-Dibromo-3-chloropropane	0.174	0.175	-0.6	124	0.03
104	Nitrobenzene	0.000	0.000	0.0	119	0.03
105	1,2,4-Tcbenzene	0.761	0.726	4.6	126	0.03
106	Hexachlorobt	0.309	0.299	26.8 <del>3.2</del>	139	0.03
107	Naphthalen	2.017	2.037	-1.0	125	0.03
108	1,2,3-Tclbenzene	0.684	0.640	6.4	124	0.04

Quantitation Report (Not Reviewed)

Data File : J:\ACQUDATA\MSVOA7\DATA\040909\M7618.D  
 Acq On : 9 Apr 2009 12:11 pm  
 Sample : CCV  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Apr 9 12:42 2009

Vial: 1  
 Operator: B.Bush  
 Inst : MS #7  
 Multiplr: 1.00

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.86	168	649908	50.00	ppb	0.02
42) 1,4 - Difluorobenzene	12.21	114	1210296	50.00	ppb	0.03
63) d5 - Chlorobenzene	17.75	117	1208939	50.00	ppb	0.02
86) d4 - Dichlorobenzene	22.54	152	627599	50.00	ppb	0.03

System Monitoring Compounds

44) surr4,Dibrflmethane	10.89	113	479924	52.34	ppb	0.03
Spiked Amount	50.000	Range 89 - 115	Recovery =	104.68%		
48) surr1,1,2-Dicethane	11.51	65	460412	52.92	ppb	0.03
Spiked Amount	50.000	Range 80 - 120	Recovery =	105.84%		
69) surr3,Toluene-d8	14.93	98	1491851	52.78	ppb	0.02
Spiked Amount	50.000	Range 88 - 124	Recovery =	105.56%		
70) surr2,bfb	20.09	95	686348	54.07	ppb	0.03
Spiked Amount	50.000	Range 80 - 123	Recovery =	108.14%		

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	4.24	85	482069	66.66	ppb	99
3) Chloromethane	4.64	50	536588	56.14	ppb	100
4) Vinyl Chloride	4.86	62	401656	55.25	ppb	99
5) Bromomethane	5.56	96	307501	46.55	ppb	98
6) Chloroethane	5.73	64	322776	53.21	ppb	98
7) FREON 21	6.07	67	886505	53.14	ppb	99
8) Trichlorofluoromethane	6.23	101	513979	54.58	ppb	97
9) Diethyl Ether	6.69	59	354689	54.87	ppb	98
10) FREON 123A	6.67	67	566344	51.25	ppb	97
11) FREON 123	6.77	83	591185	53.52	ppb	100
12) Acrolein	6.94	56	240515	278.77	ppb	97
13) FREON 113	7.11	101	348049	53.52	ppb	100
14) 1,1-Dicethene	7.16	96	333223	52.90	ppb	96
15) Acetone	7.17	43	133205	54.09	ppb	93
16) 2-Propanol	7.32	45	548726	1366.15	ppb	100
17) Iodomethane	7.47	142	585734	41.39	ppb	97
18) Carbon Disulfide	7.63	76	1352529	51.72	ppb	100
19) Acetonitrile	7.66	41	254552	291.61	ppb	100
20) Allyl Chloride	7.75	41	776889	50.24	ppb	98
21) Methyl Acetate	7.72	43	531820	65.65	ppb	97
23) TBA	8.00	59	772403	1402.81	ppb	99
24) Acrylonitrile	8.33	53	813596	305.59	ppb	99
25) Methyl-t-Butyl Ether	8.38	73	1051006	52.92	ppb	99
26) trans-1,2-Dichloroethene	8.43	96	404216	50.24	ppb	97
27) 1,1-Dicethane	9.13	63	908295	53.22	ppb	99
28) Vinyl Acetate	9.12	86	39663	45.85	ppb	97
30) 2-Chloro-1,3-butadiene	9.30	53	579297	51.52	ppb	95
33) 2,2-Dichloropropane	10.13	77	659112	61.14	ppb	98
34) 2-Butanone	10.06	43	276361	59.41	ppb	97
35) cis-1,2-Dichloroethene	10.11	96	459059	51.52	ppb	95
36) Propionitrile	10.18	54	289662	296.48	ppb	97
37) Methacrylonitrile	10.44	67	166130	54.66	ppb	81
38) Bromochloromethane	10.53	128	249401	52.90	ppb	98
39) Chloroform	10.60	83	827881	55.02	ppb	98
40) Tetrahydrofuran	10.61	42	147336	57.27	ppb	86

BB 4/9

(#) = qualifier out of range (m) = manual integration  
 M7618.D WAT0305.M Thu Apr 09 12:42:11 2009

Data File : J:\ACQUDATA\MSVOA7\DATA\040909\M7618.D

Vial: 1

Acq On : 9 Apr 2009 12:11 pm

Operator: B.Bush

Sample : CCV

Inst : MS #7

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Apr 9 12:42 2009

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)

Title : 8260B.WATERS

Last Update : Fri Mar 13 15:29:46 2009

Response via : Initial Calibration

DataAcq Meth : WAT0305

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) 1,1,1-Trichloroethane	11.01	97	608850	56.69	ppb	96
43) Cyclohexane	11.13	56	833096	53.77	ppb	99
45) Carbontetrachloride	11.31	117	515438	53.63	ppb	96
46) 1,1-Dichloropropene	11.27	75	652792	53.72	ppb	100
47) Iso-Butyl Alcohol	11.21	43	470694	1309.14	ppb	94
49) Benzene	11.66	78	1793125	51.18	ppb	99
50) 1,2-Dichloroethane	11.64	62	631174	54.40	ppb	99
52) N-Heptane	11.97	43	617706	74.72	ppb	99
53) Trichloroethene	12.73	95	474902	50.11	ppb	96
54) Methylcyclohexane	13.12	55	613922	52.99	ppb	99
55) 1,2-Dichloropropane	13.14	63	619416	51.41	ppb	100
56) Methyl Methacrylate	13.18	100	117653	54.00	ppb	100
57) 1,4-Dioxane	13.32	88	76378	1178.23	ppb	97
58) Dibromomethane	13.36	93	347773	52.19	ppb	93
59) Bromodichloromethane	13.59	83	695490	53.33	ppb	96
60) 2-Nitropropane	13.96	43	265932	113.91	ppb	100
61) 2-Chloroethylvinyl Ether	14.03	63	358191	64.47	ppb	96
62) cis-1,3-Dichloropropene	14.39	75	941155	54.17	ppb	98
64) 4-Methyl-2-Pentanone	14.59	43	690826	58.19	ppb	99
65) Toluene	15.07	91	1816617	49.46	ppb	100
66) trans-1,3-Dichloropropene	15.38	75	847789	53.77	ppb	100
67) Ethyl Methacrylate	15.44	69	755668	54.79	ppb	95
68) 1,1,2-Trichloroethane	15.77	83	414289	52.28	ppb	96
71) Tetrachloroethene	16.13	166	453734	52.27	ppb	98
72) 2-Hexanone	16.15	43	493313	58.47	ppb	100
73) 1,3-Dichloropropane	16.11	76	862143	52.50	ppb	98
74) Butyl Acetate	16.33	43	1187839	55.69	ppb	97
75) Dibromochloromethane	16.58	129	583419	53.66	ppb	95
76) 1,2-Dibromoethane	16.87	107	521627	52.79	ppb	98
77) Chlorobenzene	17.81	112	1266061	49.45	ppb	98
78) 1,1,1,2-Tetrachloroethane	17.92	131	480626	49.73	ppb	98
79) Ethylbenzene	17.96	91	2113835	50.12	ppb	100
80) (m+p)Xylene	18.18	106	1590579	103.54	ppb	98
81) o-Xylene	19.01	106	771798	49.82	ppb	99
82) Styrene	19.02	104	1276485	50.22	ppb	95
83) Bromoform	19.47	173	355961	53.98	ppb	95
84) Isopropylbenzene	19.74	105	1851709	51.12	ppb	97
85) Cyclohexanone	19.99	55	1818761	1160.75	ppb	98
87) 1,1,2,2-Tetrachloroethane	20.29	83	623923	47.36	ppb	97
88) Trans-1,4-Dichloro-2-buten	20.41	53	138781	48.53	ppb	89
89) 1,2,3-Trichloropropene	20.44	110	152217	46.10	ppb	94
90) n-Propylbenzene	20.58	91	2351025	46.31	ppb	98
91) Bromobenzene	20.48	156	562034	46.55	ppb	95
92) 1,3,5-Trimethylbenzene	20.91	105	1456042	46.52	ppb	98
93) 2-Chlorotoluene	20.83	91	1401003	43.54	ppb	100
94) 4-Chlorotoluene	21.05	91	1488149	44.49	ppb	98
95) tert-Butylbenzene	21.63	119	1163971	45.86	ppb	97
96) 1,2,4-Trimethylbenzene	21.72	105	1511465	47.88	ppb	99
97) sec-Butylbenzene	22.08	105	1666149	45.95	ppb	98
98) p-Isopropyltoluene	22.36	119	1439426	48.18	ppb	97

(#)=qualifier out of range (m)=manual integration

M7618.D WAT0305.M

Thu Apr 09 12:42:11 2009

Data File : J:\ACQUATA\MSVOA7\DATA\040909\M7618.D Vial: 1  
 Acq On : 9 Apr 2009 12:11 pm Operator: B.Bush  
 Sample : CCV Inst : MS #7  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Apr 9 12:42 2009 Quant Results File: WAT0305.RES

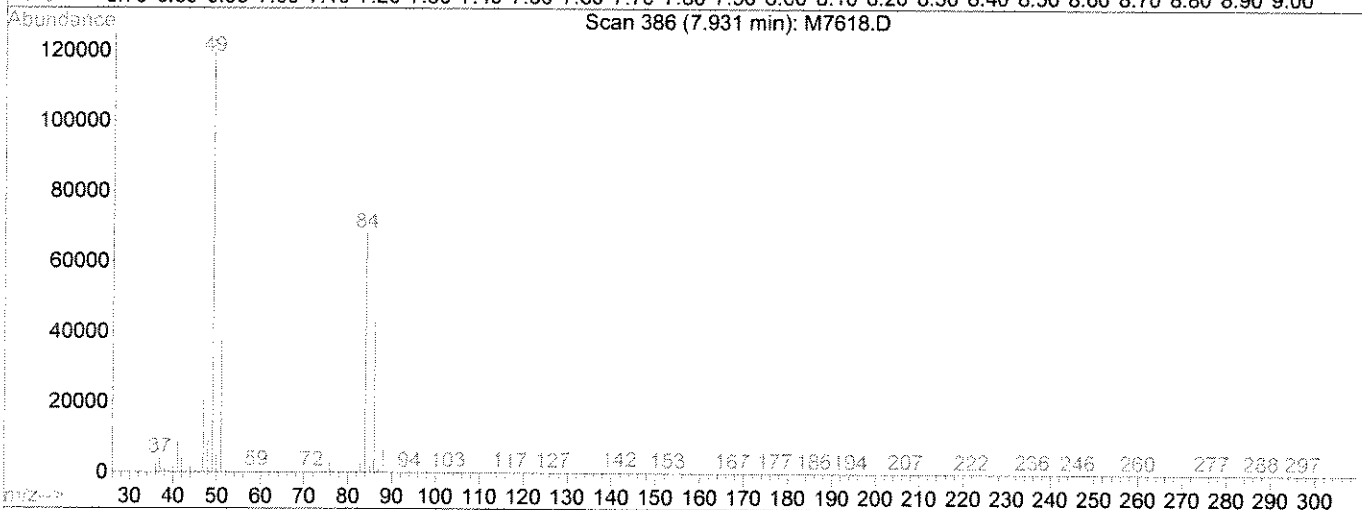
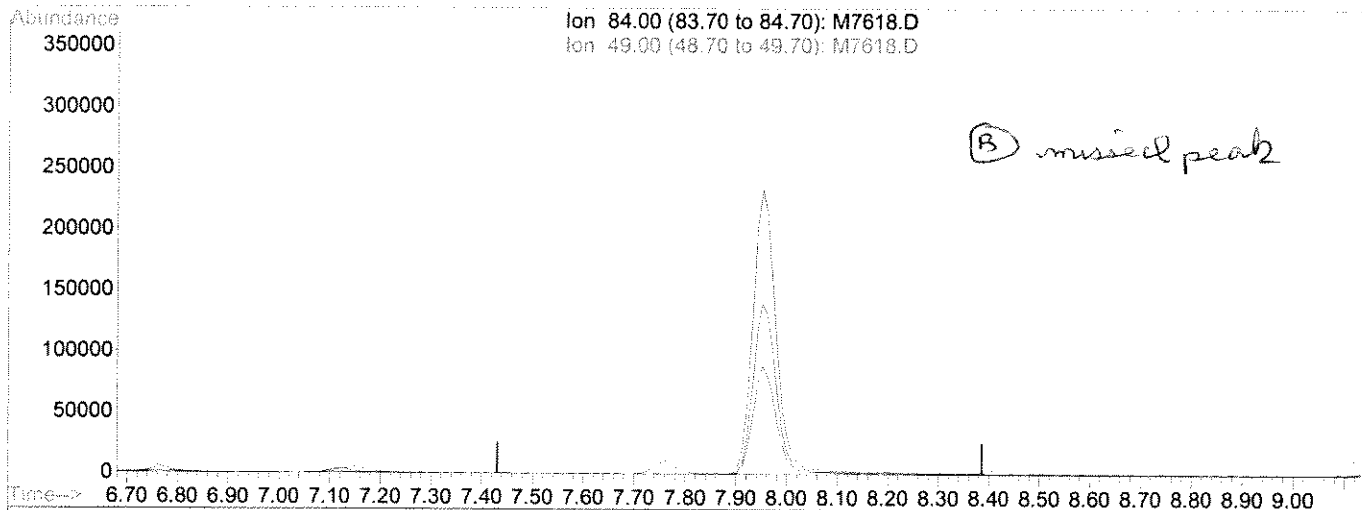
Quant Method : J:\ACQUATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
99) 1,3-Dclbenz	22.41	146	955151	46.68	ppb	100
100) 1,4-Dclbenz	22.59	146	975968	46.03	ppb	99
101) n-Butylbenzene	23.27	91	1393556	48.09	ppb	99
102) 1,2-Dclbenz	23.45	146	931634	47.02	ppb	96
103) 1,2-Dibromo-3-chloropropan	25.31	157	109949	50.42	ppb	89
105) 1,2,4-Tcbenzene	27.40	180	455622	47.71	ppb	100
106) Hexachlorobt	27.74	225	187834	63.40	ppb	98
107) Naphthalen	28.03	128	1278174	50.49	ppb	99
108) 1,2,3-Tclbenzene	28.63	180	401892	46.81	ppb	96
20) <i>methylene chloride</i>	7.95		445801	52.15	ppb	BB

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA7\DATA\040909\M7618.D Vial: 1  
 Acq On : 9 Apr 2009 12:11 pm Operator: B.Bush  
 Sample : CCV Inst : MS #7  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Apr 9 12:42 2009 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Multiple Level Calibration



(22) Methylene Chloride

7.93min 0.00ppb

response 0

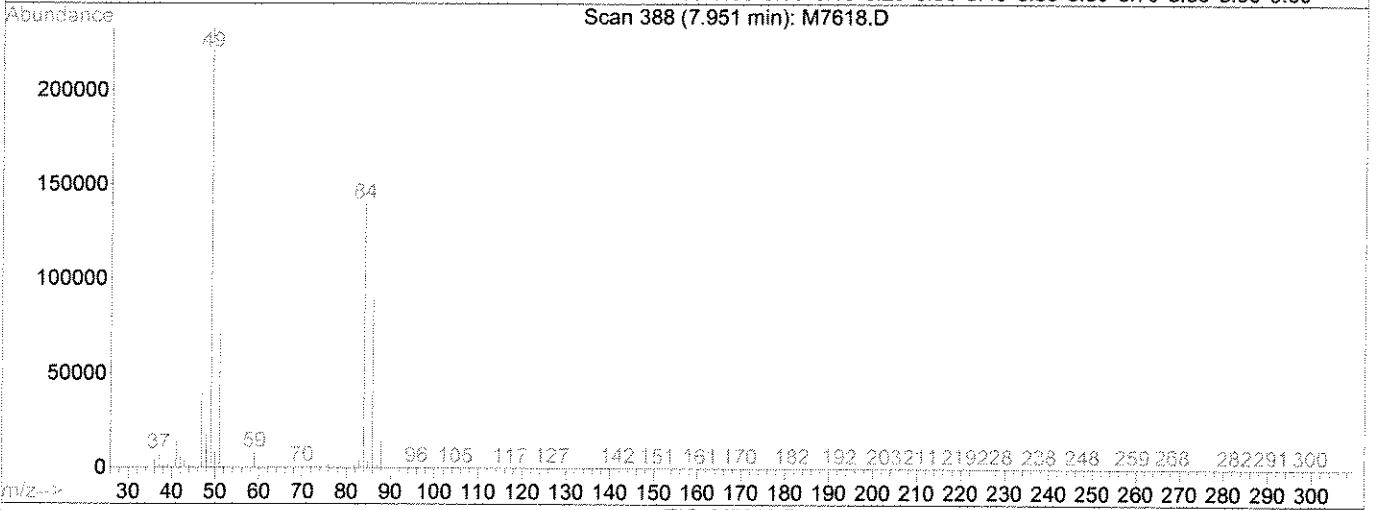
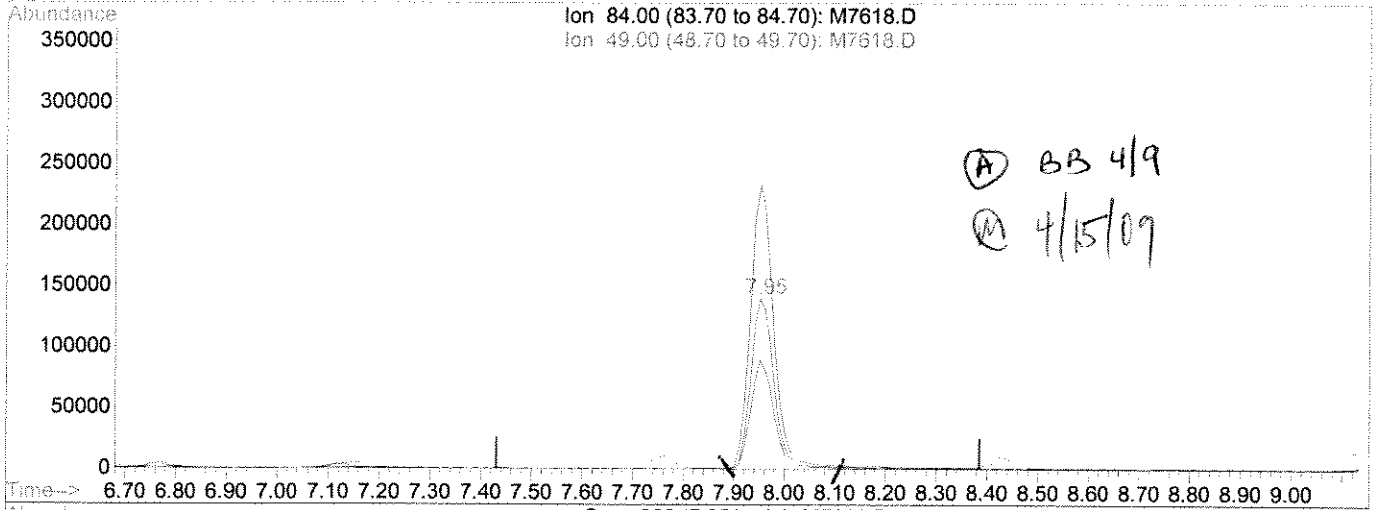
Ion	Exp%	Act%
84.00	100	0.00
49.00	159.50	0.00#
86.00	64.60	0.00#
0.00	0.00	0.00



Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA7\DATA\040909\M7618.D Vial: 1  
 Acq On : 9 Apr 2009 12:11 pm Operator: B.Bush  
 Sample : CCV Inst : MS #7  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Apr 9 13:02 2009 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Multiple Level Calibration



(22) Methylene Chloride

7.95min 52.15ppb m

response 445801

Ion	Exp%	Act%
84.00	100	100
49.00	159.50	166.67
86.00	64.60	63.79
0.00	0.00	0.00

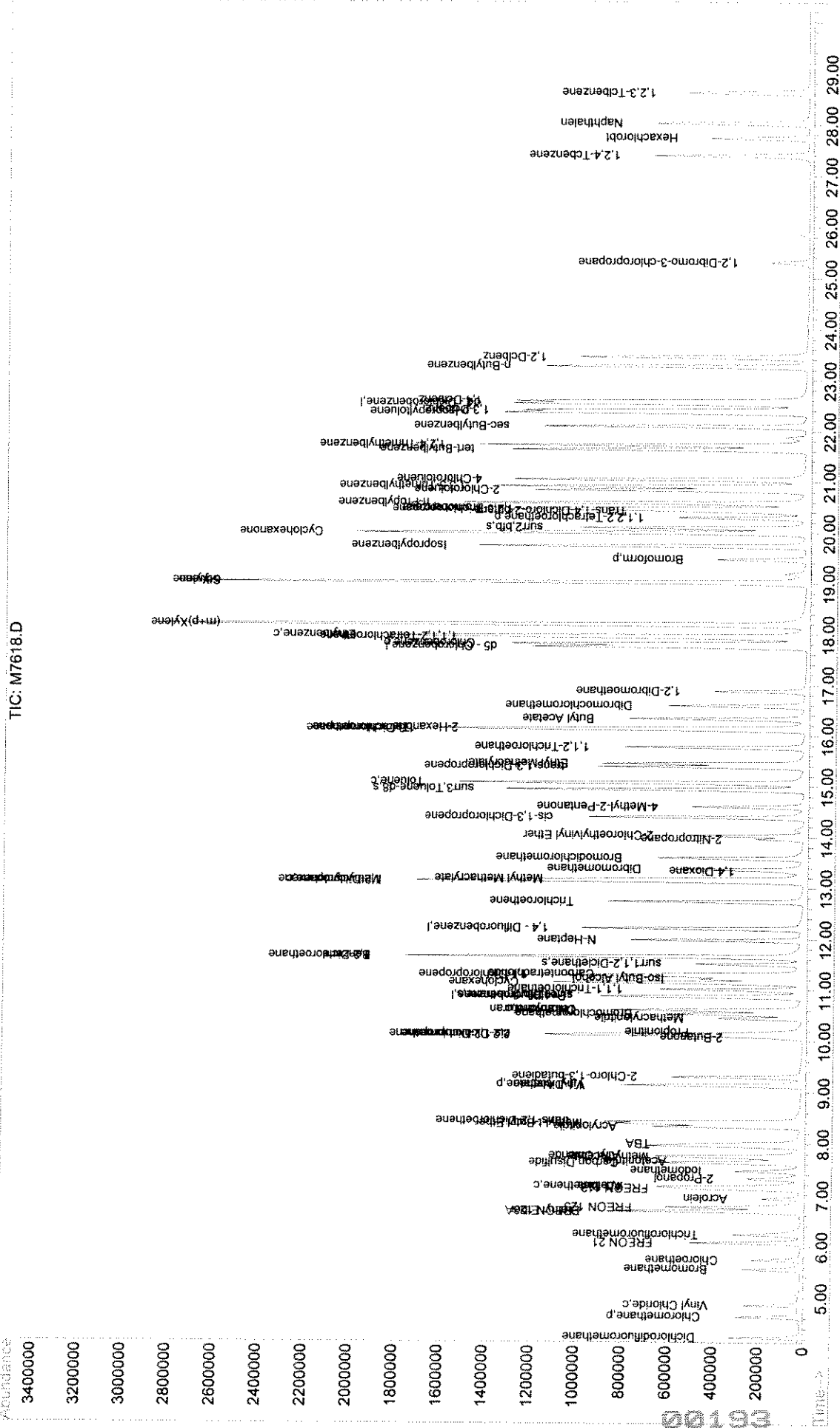
Quantitation Report

Data File : J:\ACQDATA\MSVOA7\DATA\040909\M7618.D  
Acq On : 9 Apr 2009 12:11 pm  
Sample : CCV  
Misc :  
MS Integration Params: RTEINT.P  
Quant Time: Apr 9 12:42 2009

Vial: 1  
Operator: B.Bush  
Inst : MS #7  
Multiplr: 1.00

Quant Results File: WAT0305.RES

Method : J:\ACQDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
Title : 8260B.WATERS  
Last Update : Fri Mar 13 15:29:46 2009  
Response via : Initial Calibration

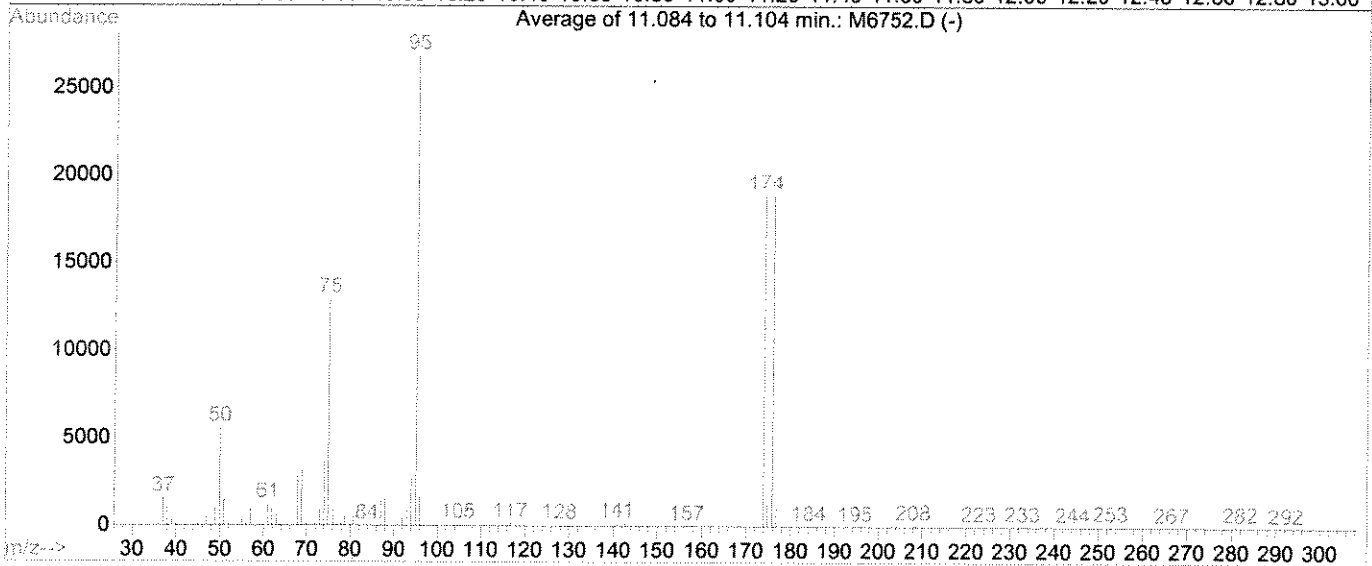
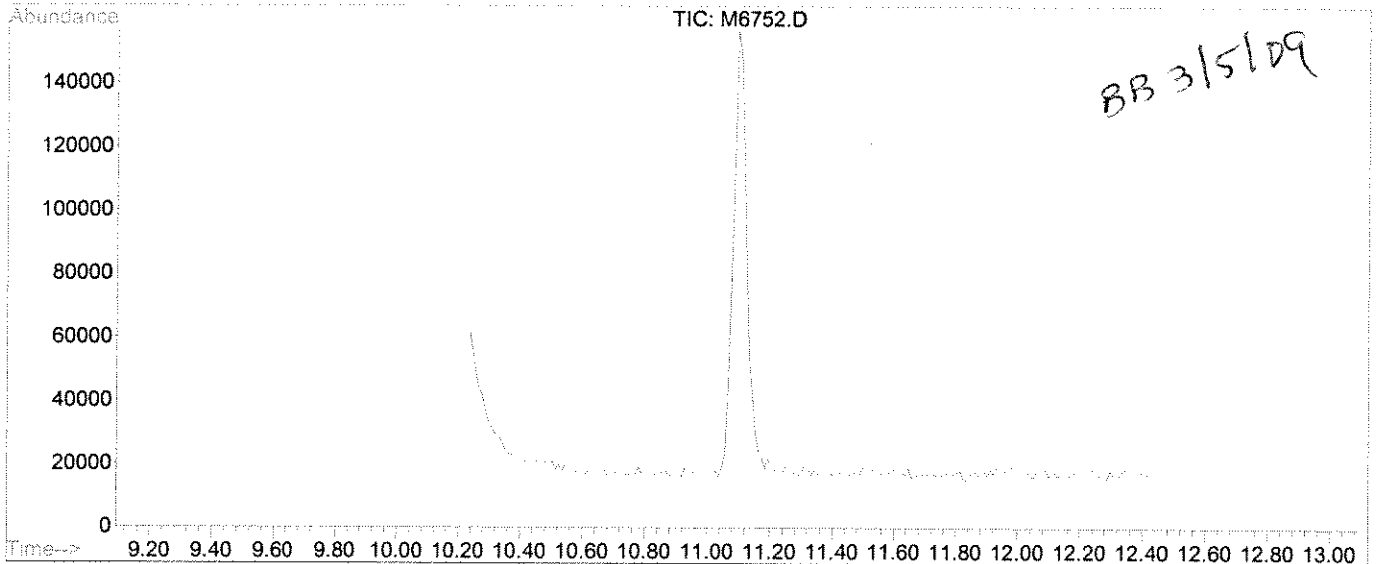


**VOLATILE ORGANICS**

**RAW QC DATA**

BFB

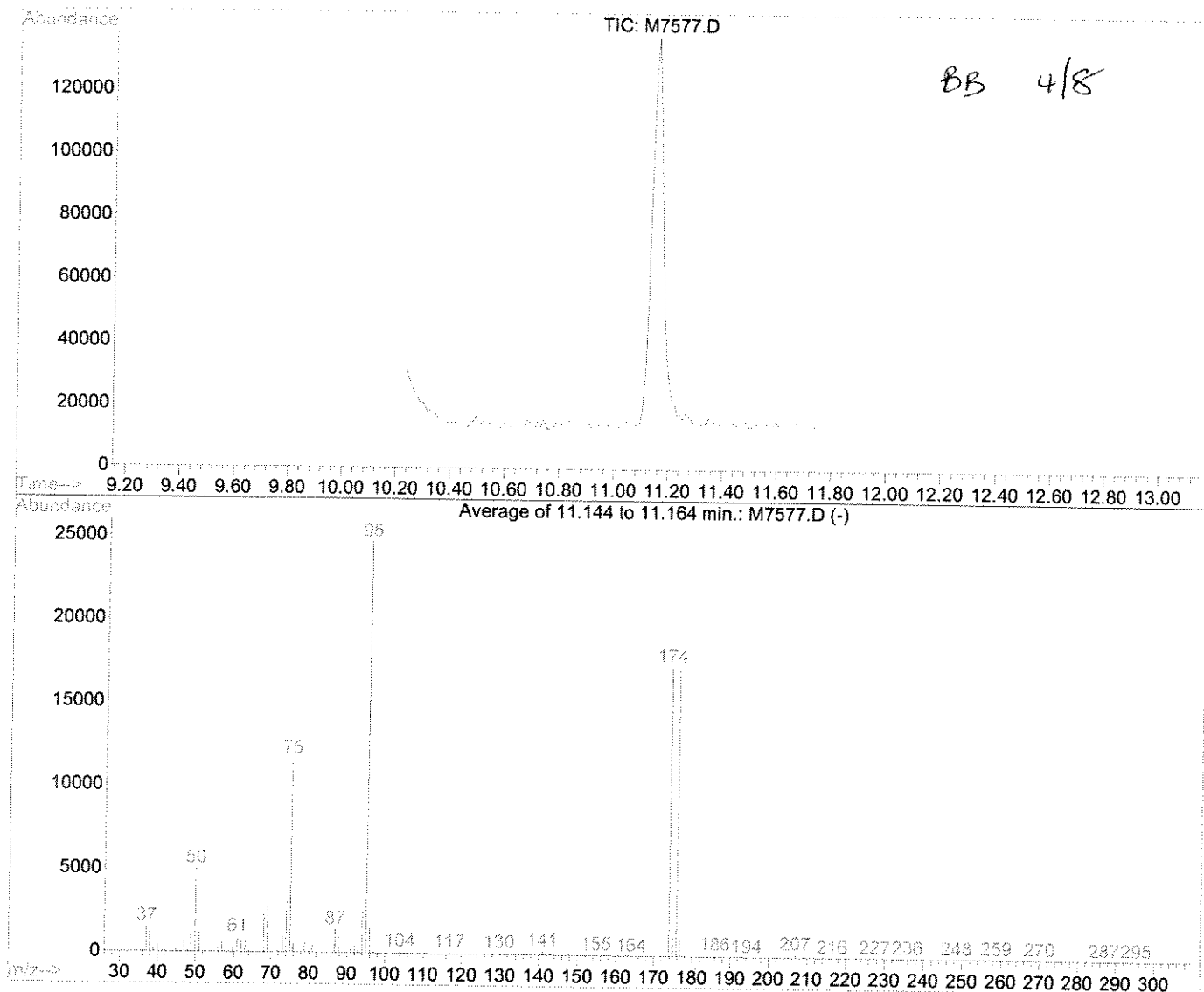
Data File : J:\ACQUDATA\MSVOA7\DATA\030509\M6752.D Vial: 19  
Acq On : 5 Mar 2009 3:45 pm Operator: B.Bush  
Sample : TUNE Inst : MS #7  
Misc : Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Method : J:\ACQUDATA\MSVOA7\METHODS\WAT0206.M (RTE Integrator)  
Title : 8260B.WATERS



AutoFind: Scans 87, 88, 89; Background Corrected with Scan 76

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.8	5608	PASS
75	95	30	60	48.1	12961	PASS
95	95	100	100	100.0	26946	PASS
96	95	5	9	6.6	1784	PASS
173	174	0.00	2	0.3	55	PASS
174	95	50	120	70.3	18933	PASS
175	174	5	9	7.3	1380	PASS
176	174	95	101	99.7	18882	PASS
177	176	5	9	6.1	1156	PASS

Data File : J:\ACQUDATA\MSVOA7\DATA\040809\M7577.D Vial: 18  
 Acq On : 8 Apr 2009 9:43 am Operator: B.Bush  
 Sample : TUNE Inst : MS #7  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Method : J:\ACQUDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS

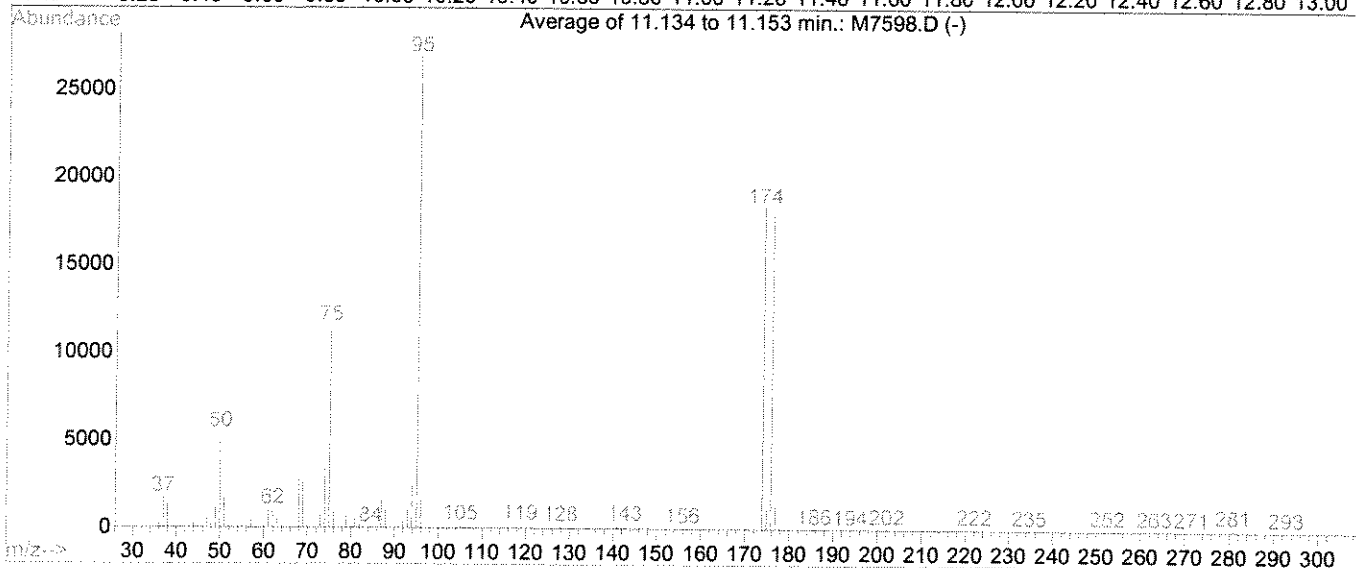
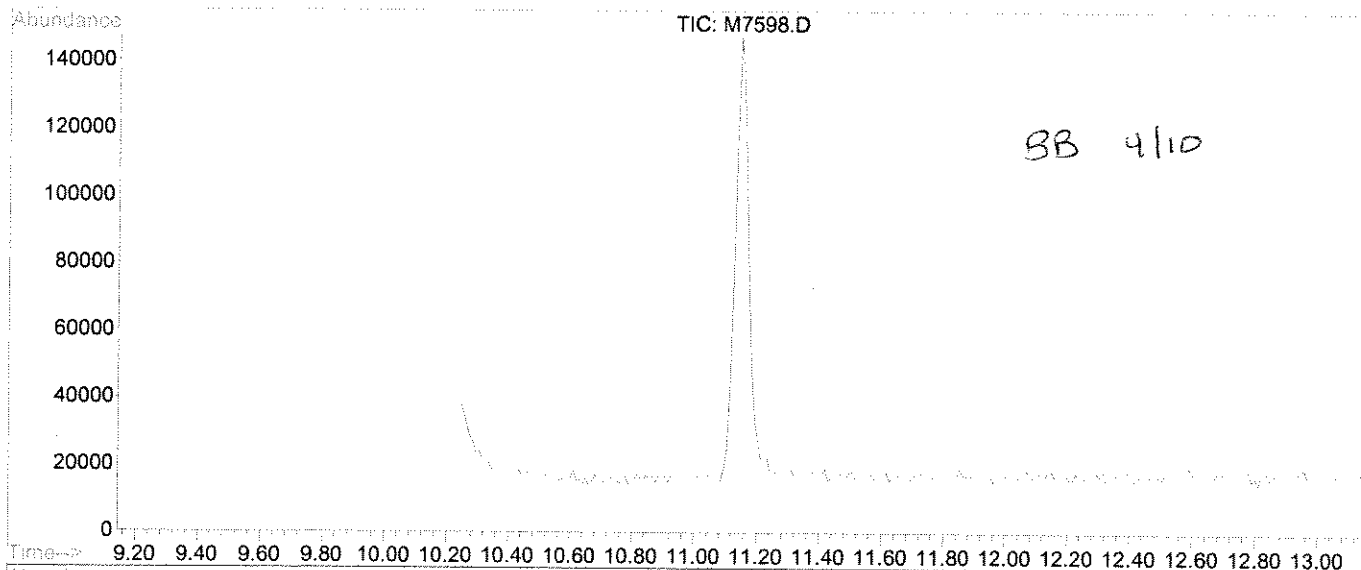


AutoFind: Scans 93, 94, 95; Background Corrected with Scan 83

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.3	5033	PASS
75	95	30	60	47.0	11621	PASS
95	95	100	100	100.0	24747	PASS
96	95	5	9	6.0	1478	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	70.1	17358	PASS
175	174	5	9	6.9	1200	PASS
176	174	95	101	99.5	17268	PASS
177	176	5	9	6.3	1090	PASS

BFB

Data File : J:\ACQUDATA\MSVOA7\DATA\040809\M7598.D Vial: 19  
Acq On : 8 Apr 2009 11:14 pm Operator: B.Bush  
Sample : TUNE Inst : MS #7  
Misc : Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Method : J:\ACQUDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
Title : 8260B.WATERS

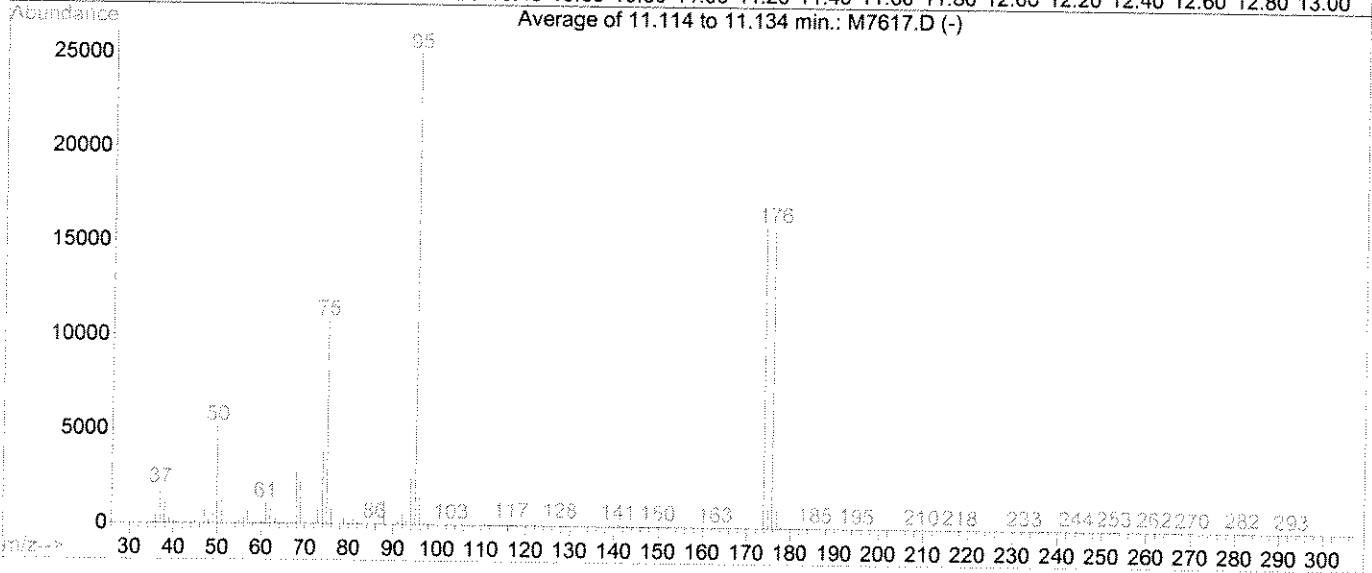
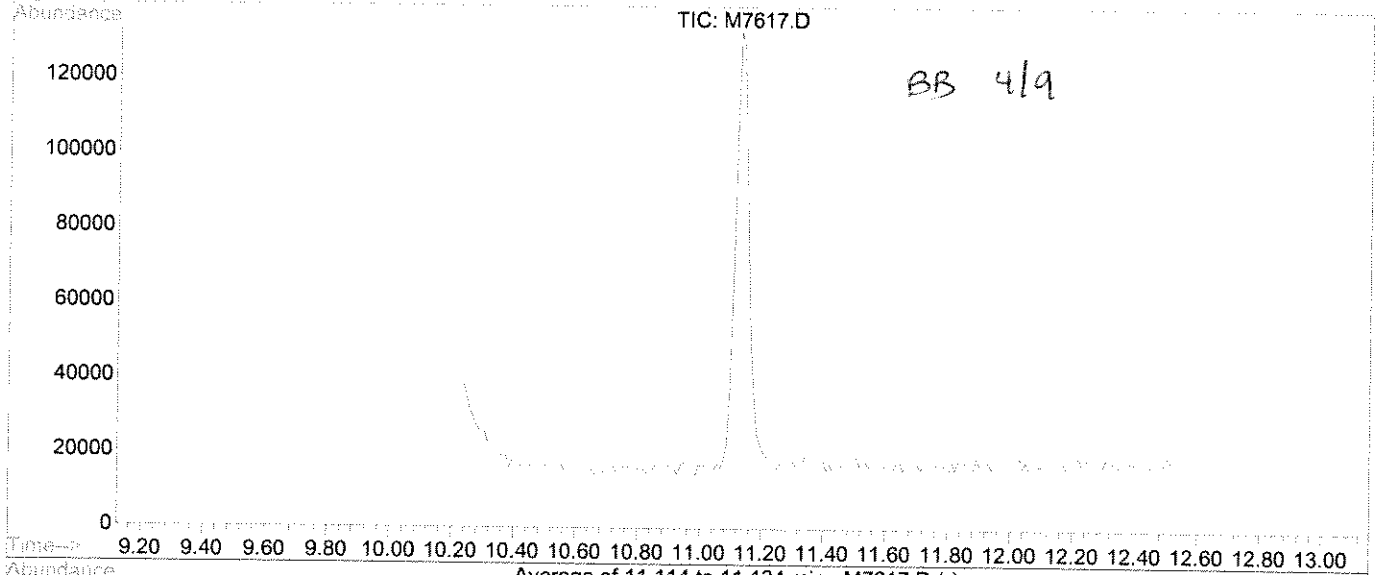


AutoFind: Scans 92, 93, 94; Background Corrected with Scan 84

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.1	5422	PASS
75	95	30	60	42.7	11502	PASS
95	95	100	100	100.0	26924	PASS
96	95	5	9	6.1	1641	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	68.1	18340	PASS
175	174	5	9	6.7	1236	PASS
176	174	95	101	97.9	17951	PASS
177	176	5	9	7.6	1356	PASS

BFB

Data File : J:\ACQUDATA\MSVOA7\DATA\040909\M7617.D Vial: 18  
Acq On : 9 Apr 2009 11:36 am Operator: B.Bush  
Sample : TUNE Inst : MS #7  
Misc : Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Method : J:\ACQUDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
Title : 8260B.WATERS



AutoFind: Scans 90, 91, 92; Background Corrected with Scan 84

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.6	5158	PASS
75	95	30	60	43.0	10787	PASS
95	95	100	100	100.0	25059	PASS
96	95	5	9	5.7	1417	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	63.5	15901	PASS
175	174	5	9	6.8	1074	PASS
176	174	95	101	100.4	15959	PASS
177	176	5	9	6.5	1040	PASS

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** RQ0902333-01

**Service Request:** R0901679  
**Date Collected:** NA  
**Date Received:** NA

**Units:** µg/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1-Trichloroethane (TCA)	0.45	U	5.0	0.45	1	NA	4/8/09 12:17		149068	
1,1,2,2-Tetrachloroethane	0.44	U	5.0	0.44	1	NA	4/8/09 12:17		149068	
1,1,2-Trichloroethane	0.45	U	5.0	0.45	1	NA	4/8/09 12:17		149068	
1,1-Dichloroethane (1,1-DCA)	0.64	U	5.0	0.64	1	NA	4/8/09 12:17		149068	
1,1-Dichloroethene (1,1-DCE)	0.59	U	5.0	0.59	1	NA	4/8/09 12:17		149068	
1,2-Dichloroethane	0.42	U	5.0	0.42	1	NA	4/8/09 12:17		149068	
1,2-Dichloroethene, Total	0.93	U	10	0.93	1	NA	4/8/09 12:17		149068	
1,2-Dichloropropane	0.36	U	5.0	0.36	1	NA	4/8/09 12:17		149068	
2-Butanone (MEK)	1.0	U	10	1.0	1	NA	4/8/09 12:17		149068	
2-Hexanone	0.78	U	10	0.78	1	NA	4/8/09 12:17		149068	
4-Methyl-2-pentanone	0.71	U	10	0.71	1	NA	4/8/09 12:17		149068	
Acetone	1.2	U	20	1.2	1	NA	4/8/09 12:17		149068	
Benzene	0.42	U	5.0	0.42	1	NA	4/8/09 12:17		149068	
Bromodichloromethane	0.84	U	5.0	0.84	1	NA	4/8/09 12:17		149068	
Bromoform	0.32	U	5.0	0.32	1	NA	4/8/09 12:17		149068	
Bromomethane	0.58	U	5.0	0.58	1	NA	4/8/09 12:17		149068	
Carbon Disulfide	0.52	U	10	0.52	1	NA	4/8/09 12:17		149068	
Carbon Tetrachloride	0.36	U	5.0	0.36	1	NA	4/8/09 12:17		149068	
Chlorobenzene	0.44	U	5.0	0.44	1	NA	4/8/09 12:17		149068	
Chloroethane	0.36	U	5.0	0.36	1	NA	4/8/09 12:17		149068	
Chloroform	0.22	U	5.0	0.22	1	NA	4/8/09 12:17		149068	
Chloromethane	0.96	U	5.0	0.96	1	NA	4/8/09 12:17		149068	
Dibromochloromethane	0.43	U	5.0	0.43	1	NA	4/8/09 12:17		149068	
Methylene Chloride	0.50	U	5.0	0.50	1	NA	4/8/09 12:17		149068	
Ethylbenzene	0.43	U	5.0	0.43	1	NA	4/8/09 12:17		149068	
Styrene	0.37	U	5.0	0.37	1	NA	4/8/09 12:17		149068	
Tetrachloroethene (PCE)	0.43	U	5.0	0.43	1	NA	4/8/09 12:17		149068	
Toluene	0.42	U	5.0	0.42	1	NA	4/8/09 12:17		149068	
Trichloroethene (TCE)	0.63	U	5.0	0.63	1	NA	4/8/09 12:17		149068	
Vinyl Chloride	0.52	U	5.0	0.52	1	NA	4/8/09 12:17		149068	
Xylenes, Total	1.5	U	5.0	1.5	1	NA	4/8/09 12:17		149068	
cis-1,3-Dichloropropene	0.38	U	5.0	0.38	1	NA	4/8/09 12:17		149068	
trans-1,3-Dichloropropene	0.25	U	5.0	0.25	1	NA	4/8/09 12:17		149068	

**Comments:**



**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** RQ0902333-01

**Service Request:** R0901679  
**Date Collected:** NA  
**Date Received:** NA  
**Units:** µg/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
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Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
4-Bromofluorobenzene	107	80-123	4/8/09 12:17		
Dibromofluoromethane	103	89-115	4/8/09 12:17		
Toluene-d8	98	88-124	4/8/09 12:17		

**Comments:** \_\_\_\_\_

Data File : J:\ACQUDATA\MSVOA7\DATA\040809\M7581.D  
 Acq On : 8 Apr 2009 12:17 pm  
 Sample : METBLK|1.0 RQ02333-01  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Apr 8 12:47 2009

Vial: 2  
 Operator: B.Bush  
 Inst : MS #7  
 Multiplr: 1.00

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.88	168	626442	50.00	ppb	0.04
42) 1,4 - Difluorobenzene	12.23	114	1140703	50.00	ppb	0.05
63) d5 - Chlorobenzene	17.78	117	1141837	50.00	ppb	0.05
86) d4 - Dichlorobenzene	22.56	152	556196	50.00	ppb	0.05

System Monitoring Compounds

44) surr4, Dibrflmethane	10.91	113	445607	51.57	ppb	0.05
Spiked Amount	50.000	Range	89 - 115	Recovery	=	103.14%
48) surr1, 1,2-Dicethane	11.53	65	430043	52.45	ppb	0.05
Spiked Amount	50.000	Range	80 - 120	Recovery	=	104.90%
69) surr3, Toluene-d8	14.96	98	1302096	48.77	ppb	0.05
Spiked Amount	50.000	Range	88 - 124	Recovery	=	97.54%
70) surr2, bfb	20.12	95	640398	53.41	ppb	0.06
Spiked Amount	50.000	Range	80 - 123	Recovery	=	106.82%

Target Compounds

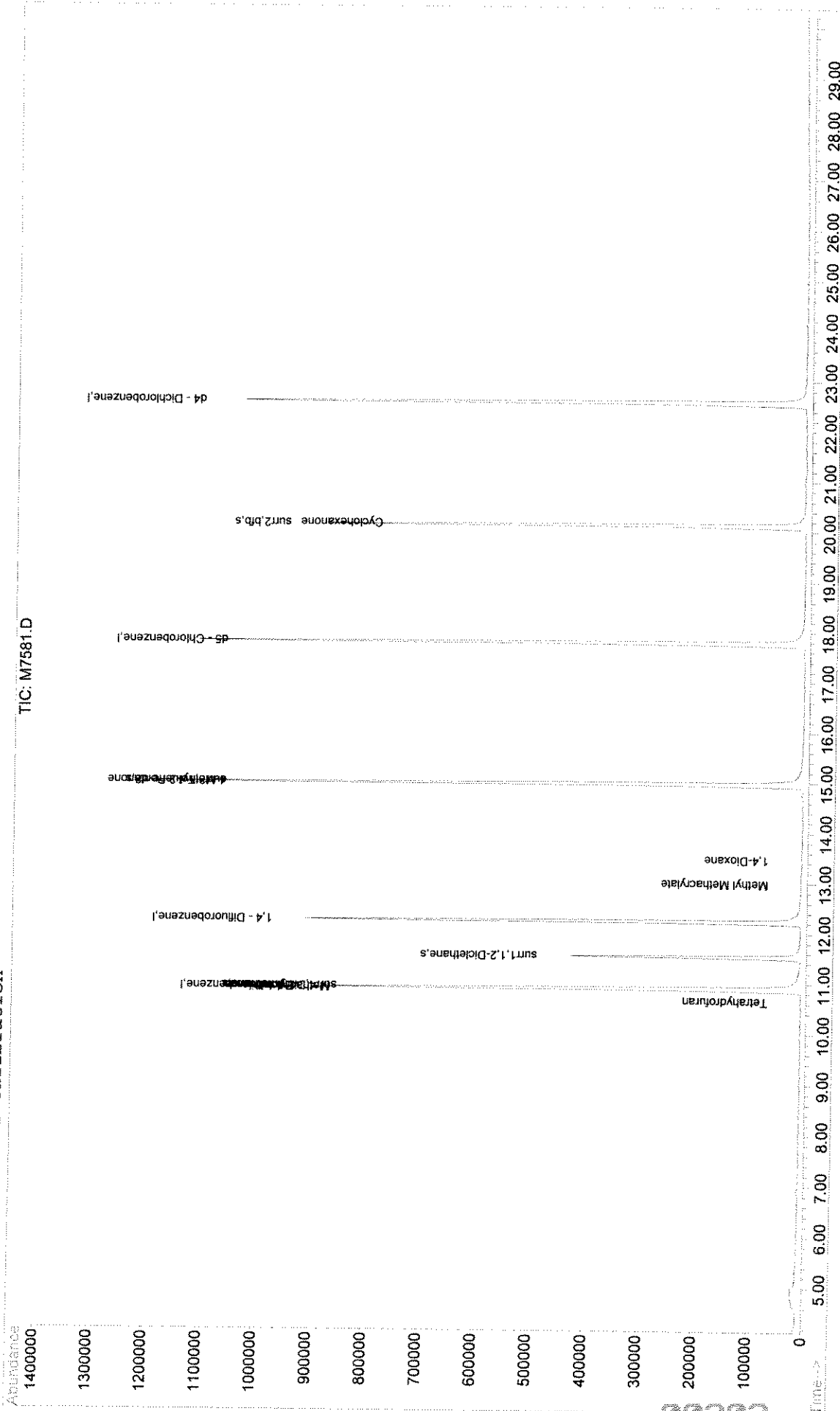
	R.T.	QIon	Response	Conc	Units	Qvalue
<del>37) Methacrylonitrile</del>	<del>10.87</del>	<del>67</del>	<del>1338</del>	<del>0.46</del>	<del>ppb</del>	<del># 1</del>
40) Tetrahydrofuran	10.64	42	1485	0.60	ppb	# 95
<del>43) Cyclohexane</del>	<del>10.88</del>	<del>56</del>	<del>15028</del>	<del>1.03</del>	<del>ppb</del>	<del># 1</del>
<del>56) Methyl Methacrylate</del>	<del>12.98</del>	<del>100</del>	<del>741</del>	<del>0.36</del>	<del>ppb</del>	<del># 17</del>
<del>57) 1,4-Dioxane</del>	<del>13.45</del>	<del>88</del>	<del>809</del>	<del>13.24</del>	<del>ppb</del>	<del># 34</del>
<del>64) 4 Methyl 2 Pentanone</del>	<del>14.97</del>	<del>43</del>	<del>8032</del>	<del>0.72</del>	<del>ppb</del>	<del># 1</del>
<del>85) Cyclohexanone</del>	<del>20.14</del>	<del>55</del>	<del>868</del>	<del>0.59</del>	<del>ppb</del>	<del>92</del>

BB 4/10

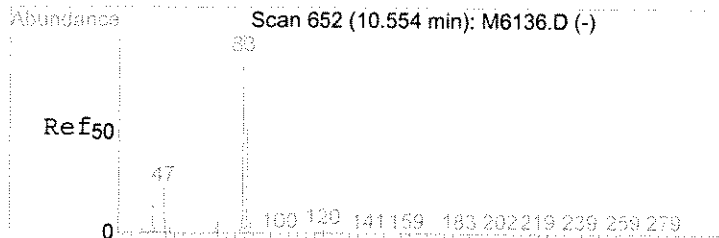
Quantitation Report

Data File : J:\ACQDATA\MSVOA7\DATA\040809\M7581.D  
Acq On : 8 Apr 2009 12:17 pm Vial: 2  
Sample : METBLK|1.0 Operator: B.Bush  
Misc : Inst : MS #7  
MS Integration Params: RTEINT.P Multiplr: 1.00  
Quant Time: Apr 8 12:47 2009 Quant Results File: WAT0305.REB

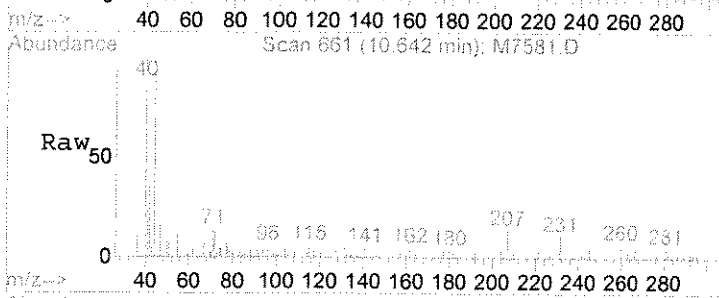
Method : J:\ACQDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
Title : 8260B.WATERS  
Last Update : Fri Mar 13 15:29:46 2009  
Response via : Initial Calibration



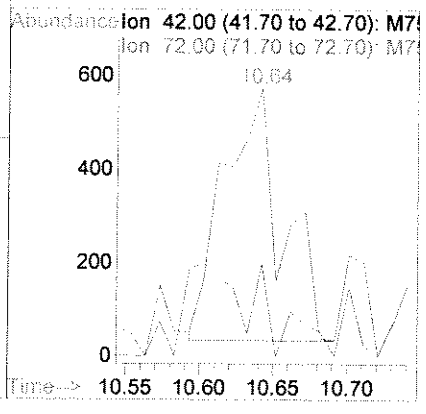
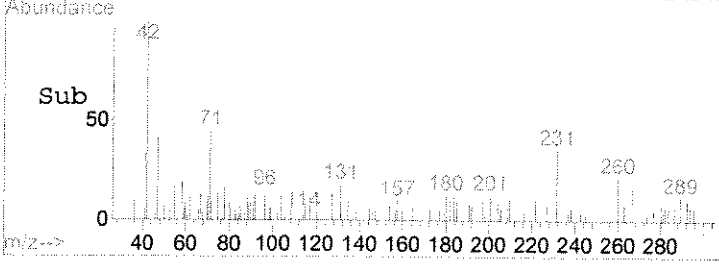
00202



#40  
 Tetrahydrofuran  
 Concen: 0.60 ppb  
 RT: 10.64 min Scan# 661  
 Delta R.T. 0.07 min  
 Lab File: M7581.D  
 Acq: 8 Apr 2009 12:17 pm



Tgt Ion: 42 Resp: 1485  
 Ion Ratio Lower Upper  
 42 100  
 72 34.6 22.3 41.5



## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

Client: Conestoga-Rovers & Associates, Incorporated  
 Project: UCAR Annual GE/ 5513-02  
 Sample Matrix: Water  
 Sample Name: Method Blank  
 Lab Code: RQ0902369-03

Service Request: R0901679  
 Date Collected: NA  
 Date Received: NA  
 Units: µg/L  
 Basis: NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis	
								Lot	Lot Note
1,1,1-Trichloroethane (TCA)	0.45	U	5.0	0.45	1	NA	4/9/09 01:46	149259	
1,1,2,2-Tetrachloroethane	0.44	U	5.0	0.44	1	NA	4/9/09 01:46	149259	
1,1,2-Trichloroethane	0.45	U	5.0	0.45	1	NA	4/9/09 01:46	149259	
1,1-Dichloroethane (1,1-DCA)	0.64	U	5.0	0.64	1	NA	4/9/09 01:46	149259	
1,1-Dichloroethene (1,1-DCE)	0.59	U	5.0	0.59	1	NA	4/9/09 01:46	149259	
1,2-Dichloroethane	0.42	U	5.0	0.42	1	NA	4/9/09 01:46	149259	
1,2-Dichloroethene, Total	0.93	U	10	0.93	1	NA	4/9/09 01:46	149259	
1,2-Dichloropropane	0.36	U	5.0	0.36	1	NA	4/9/09 01:46	149259	
2-Butanone (MEK)	1.0	U	10	1.0	1	NA	4/9/09 01:46	149259	
2-Hexanone	0.78	U	10	0.78	1	NA	4/9/09 01:46	149259	
4-Methyl-2-pentanone	0.71	U	10	0.71	1	NA	4/9/09 01:46	149259	
Acetone	1.2	U	20	1.2	1	NA	4/9/09 01:46	149259	
Benzene	0.42	U	5.0	0.42	1	NA	4/9/09 01:46	149259	
Bromodichloromethane	0.84	U	5.0	0.84	1	NA	4/9/09 01:46	149259	
Bromoform	0.32	U	5.0	0.32	1	NA	4/9/09 01:46	149259	
Bromomethane	0.58	U	5.0	0.58	1	NA	4/9/09 01:46	149259	
Carbon Disulfide	0.52	U	10	0.52	1	NA	4/9/09 01:46	149259	
Carbon Tetrachloride	0.36	U	5.0	0.36	1	NA	4/9/09 01:46	149259	
Chlorobenzene	0.44	U	5.0	0.44	1	NA	4/9/09 01:46	149259	
Chloroethane	0.36	U	5.0	0.36	1	NA	4/9/09 01:46	149259	
Chloroform	0.22	U	5.0	0.22	1	NA	4/9/09 01:46	149259	
Chloromethane	0.96	U	5.0	0.96	1	NA	4/9/09 01:46	149259	
Dibromochloromethane	0.43	U	5.0	0.43	1	NA	4/9/09 01:46	149259	
Methylene Chloride	0.50	U	5.0	0.50	1	NA	4/9/09 01:46	149259	
Ethylbenzene	0.43	U	5.0	0.43	1	NA	4/9/09 01:46	149259	
Styrene	0.37	U	5.0	0.37	1	NA	4/9/09 01:46	149259	
Tetrachloroethene (PCE)	0.43	U	5.0	0.43	1	NA	4/9/09 01:46	149259	
Toluene	0.42	U	5.0	0.42	1	NA	4/9/09 01:46	149259	
Trichloroethene (TCE)	0.63	U	5.0	0.63	1	NA	4/9/09 01:46	149259	
Vinyl Chloride	0.52	U	5.0	0.52	1	NA	4/9/09 01:46	149259	
Xylenes, Total	1.5	U	5.0	1.5	1	NA	4/9/09 01:46	149259	
cis-1,3-Dichloropropene	0.38	U	5.0	0.38	1	NA	4/9/09 01:46	149259	
trans-1,3-Dichloropropene	0.25	U	5.0	0.25	1	NA	4/9/09 01:46	149259	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Conestoga-Rovers & Associates, Incorporated
Project: UCAR Annual GE/ 5513-02
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ0902369-03

Service Request: R0901679
Date Collected: NA
Date Received: NA
Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Table with 10 columns: Analyte Name, Result, Q, MRL, MDL, Dilution Factor, Date Extracted, Date Analyzed, Extraction Lot, Analysis Lot, Note

Table with 7 columns: Surrogate Name, %Rec, Control Limits, Date Analyzed, Q, Note. Includes rows for 4-Bromofluorobenzene, Dibromofluoromethane, and Toluene-d8.

Comments:

Quantitation Report (Not Reviewed)

Data File : J:\ACQUDATA\MSVOA7\DATA\040809\M7602.D  
 Acq On : 9 Apr 2009 1:46 am  
 Sample : METBLK|1.0 RD0902369-03  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Apr 9 2:16 2009

Vial: 23  
 Operator: B.Bush  
 Inst : MS #7  
 Multiplr: 1.00

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

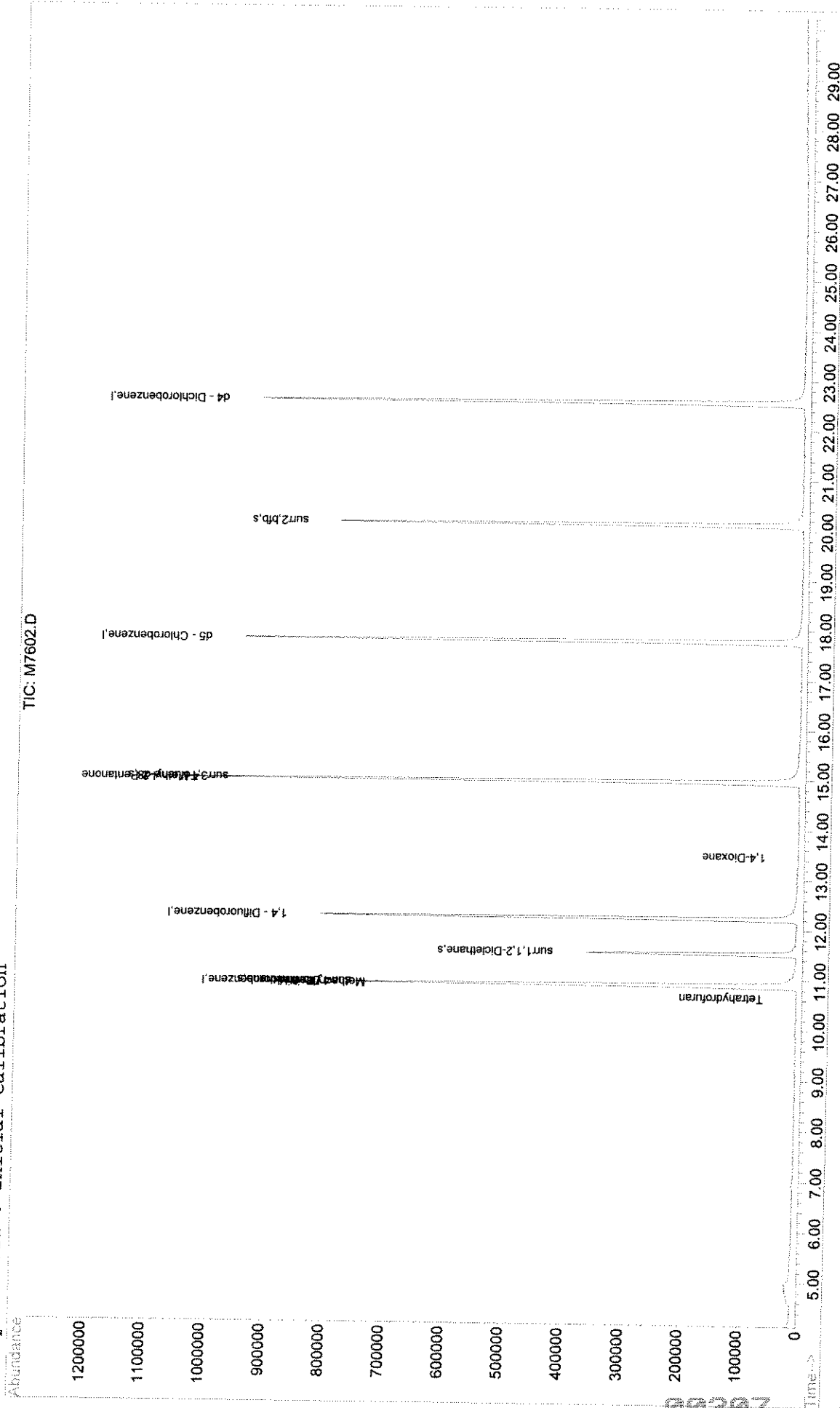
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.87	168	553386	50.00	ppb	0.03
42) 1,4 - Difluorobenzene	12.22	114	989508	50.00	ppb	0.04
63) d5 - Chlorobenzene	17.77	117	1022379	50.00	ppb	0.04
86) d4 - Dichlorobenzene	22.55	152	493772	50.00	ppb	0.04
System Monitoring Compounds						
44) surr4, Dibrflmethane	10.90	113	393520	52.50	ppb	0.04
Spiked Amount 50.000	Range 89 - 115		Recovery =	105.00%		
48) surr1, 1,2-Dicethane	11.52	65	360697	50.71	ppb	0.04
Spiked Amount 50.000	Range 80 - 120		Recovery =	101.42%		
69) surr3, Toluene-d8	14.95	98	1170116	48.95	ppb	0.04
Spiked Amount 50.000	Range 88 - 124		Recovery =	97.90%		
70) surr2, bfb	20.10	95	569464	53.04	ppb	0.04
Spiked Amount 50.000	Range 80 - 123		Recovery =	106.08%		
Target Compounds						
<del>37) Methacrylonitrile</del>	<del>10.86</del>	<del>67</del>	<del>1248</del>	<del>0.48</del>	<del>ppb</del>	<del># 1</del>
40) Tetrahydrofuran	10.62	42	2120	0.97	ppb	# 88
<del>57) 1,4 Dioxane</del>	<del>13.47</del>	<del>88</del>	<del>484</del>	<del>9.13</del>	<del>ppb</del>	<del># 8</del>
<del>64) 4-Methyl-2-Pentanone</del>	<del>14.93</del>	<del>43</del>	<del>3087</del>	<del>0.31</del>	<del>ppb</del>	<del># 1</del>
106) Hexachlorobt	27.76	225	1096	Below Cal	#	81

BB 4110

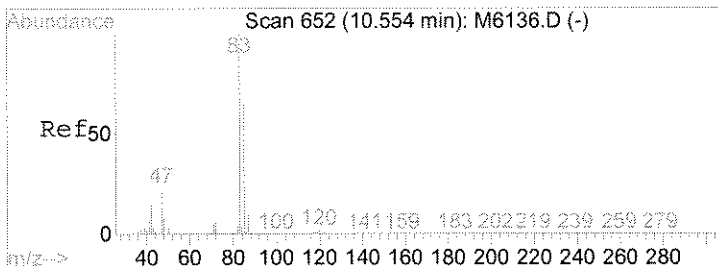
Quantitation Report

Data File : J:\ACQDATA\MSVOA7\DATA\040809\M7602.D Vial: 23  
Acq On : 9 Apr 2009 1:46 am Operator: B.Bush  
Sample : METBLK|1.0 Inst : MS #7  
Misc : Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Apr 9 2:16 2009 Quant Results File: WAT0305.RES

Method : J:\ACQDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
Title : 8260B.WATERS  
Last Update : Fri Mar 13 15:29:46 2009  
Response via : Initial Calibration

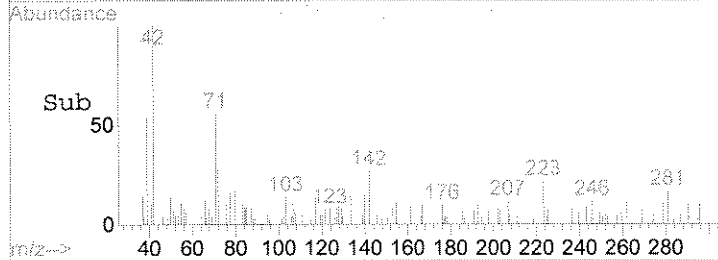
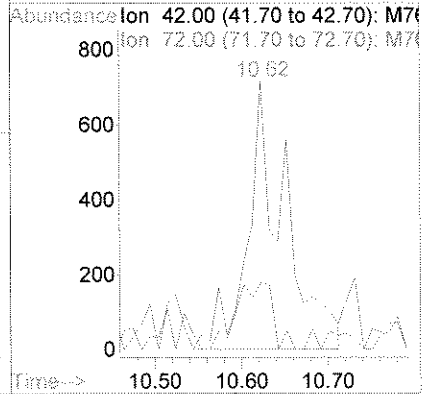
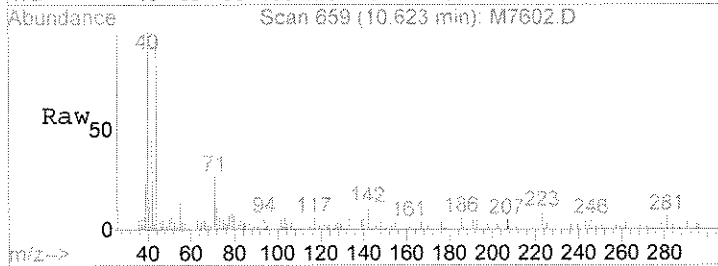






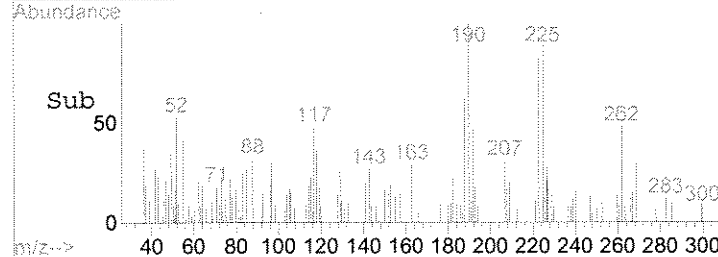
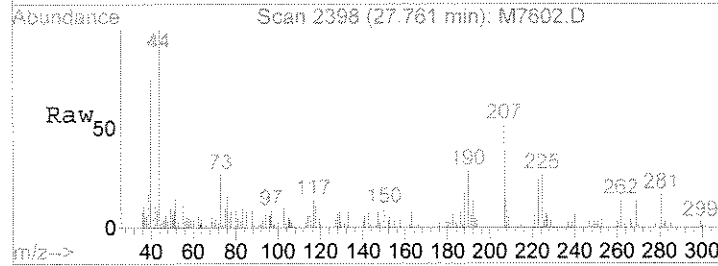
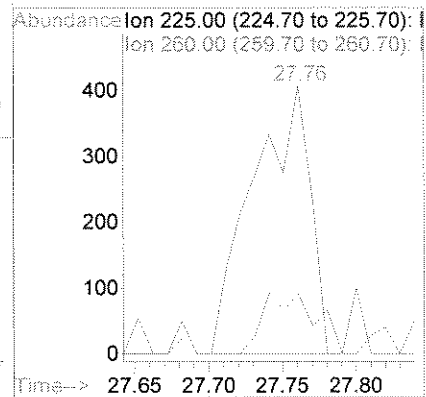
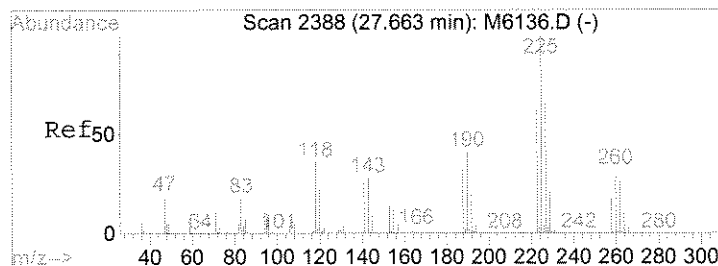
#40  
 Tetrahydrofuran  
 Concen: 0.97 ppb  
 RT: 10.62 min Scan# 659  
 Delta R.T. 0.05 min  
 Lab File: M7602.D  
 Acq: 9 Apr 2009 1:46 am

Tgt Ion: 42 Resp: 2120  
 Ion Ratio Lower Upper  
 42 100  
 72 25.2 22.3 41.5



#106  
 Hexachlorobt  
 Concen: Below Cal  
 RT: 27.76 min Scan# 2398  
 Delta R.T. 0.05 min  
 Lab File: M7602.D  
 Acq: 9 Apr 2009 1:46 am

Tgt Ion: 225 Resp: 1096  
 Ion Ratio Lower Upper  
 225 100  
 260 22.4 26.6 40.0#



**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** RQ0902441-01

**Service Request:** R0901679  
**Date Collected:** NA  
**Date Received:** NA  
**Units:** µg/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis		
								Lot	Lot	Note
1,1,1-Trichloroethane (TCA)	0.45	U	5.0	0.45	1	NA	4/9/09 14:09			149502
1,1,2,2-Tetrachloroethane	0.44	U	5.0	0.44	1	NA	4/9/09 14:09			149502
1,1,2-Trichloroethane	0.45	U	5.0	0.45	1	NA	4/9/09 14:09			149502
1,1-Dichloroethane (1,1-DCA)	0.64	U	5.0	0.64	1	NA	4/9/09 14:09			149502
1,1-Dichloroethene (1,1-DCE)	0.59	U	5.0	0.59	1	NA	4/9/09 14:09			149502
1,2-Dichloroethane	0.42	U	5.0	0.42	1	NA	4/9/09 14:09			149502
1,2-Dichloroethene, Total	0.93	U	10	0.93	1	NA	4/9/09 14:09			149502
1,2-Dichloropropane	0.36	U	5.0	0.36	1	NA	4/9/09 14:09			149502
2-Butanone (MEK)	1.0	U	10	1.0	1	NA	4/9/09 14:09			149502
2-Hexanone	0.78	U	10	0.78	1	NA	4/9/09 14:09			149502
4-Methyl-2-pentanone	0.71	U	10	0.71	1	NA	4/9/09 14:09			149502
Acetone	1.2	U	20	1.2	1	NA	4/9/09 14:09			149502
Benzene	0.42	U	5.0	0.42	1	NA	4/9/09 14:09			149502
Bromodichloromethane	0.84	U	5.0	0.84	1	NA	4/9/09 14:09			149502
Bromoform	0.32	U	5.0	0.32	1	NA	4/9/09 14:09			149502
Bromomethane	0.58	U	5.0	0.58	1	NA	4/9/09 14:09			149502
Carbon Disulfide	0.52	U	10	0.52	1	NA	4/9/09 14:09			149502
Carbon Tetrachloride	0.36	U	5.0	0.36	1	NA	4/9/09 14:09			149502
Chlorobenzene	0.44	U	5.0	0.44	1	NA	4/9/09 14:09			149502
Chloroethane	0.36	U	5.0	0.36	1	NA	4/9/09 14:09			149502
Chloroform	0.22	U	5.0	0.22	1	NA	4/9/09 14:09			149502
Chloromethane	0.96	U	5.0	0.96	1	NA	4/9/09 14:09			149502
Dibromochloromethane	0.43	U	5.0	0.43	1	NA	4/9/09 14:09			149502
Methylene Chloride	0.50	U	5.0	0.50	1	NA	4/9/09 14:09			149502
Ethylbenzene	0.43	U	5.0	0.43	1	NA	4/9/09 14:09			149502
Styrene	0.37	U	5.0	0.37	1	NA	4/9/09 14:09			149502
Tetrachloroethene (PCE)	0.43	U	5.0	0.43	1	NA	4/9/09 14:09			149502
Toluene	0.42	U	5.0	0.42	1	NA	4/9/09 14:09			149502
Trichloroethene (TCE)	0.63	U	5.0	0.63	1	NA	4/9/09 14:09			149502
Vinyl Chloride	0.52	U	5.0	0.52	1	NA	4/9/09 14:09			149502
Xylenes, Total	1.5	U	5.0	1.5	1	NA	4/9/09 14:09			149502
cis-1,3-Dichloropropene	0.38	U	5.0	0.38	1	NA	4/9/09 14:09			149502
trans-1,3-Dichloropropene	0.25	U	5.0	0.25	1	NA	4/9/09 14:09			149502

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** RQ0902441-01

**Service Request:** R0901679  
**Date Collected:** NA  
**Date Received:** NA  
**Units:** µg/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
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Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
4-Bromofluorobenzene	105	80-123	4/9/09 14:09		
Dibromofluoromethane	109	89-115	4/9/09 14:09		
Toluene-d8	97	88-124	4/9/09 14:09		

**Comments:**

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Data File : J:\ACQUDATA\MSVOA7\DATA\040909\M7621.D  
 Acq On : 9 Apr 2009 2:09 pm  
 Sample : METBLK|1.0  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Apr 9 14:39 2009

Vial: 4  
 Operator: B.Bush  
 Inst : MS #7  
 Multiplr: 1.00

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.86	168	630795	50.00	ppb	0.02
42) 1,4 - Difluorobenzene	12.20	114	1106102	50.00	ppb	0.02
63) d5 - Chlorobenzene	17.75	117	1160650	50.00	ppb	0.02
86) d4 - Dichlorobenzene	22.53	152	554696	50.00	ppb	0.02

System Monitoring Compounds

44) surr4, Dibrflmethane	10.88	113	457659	54.62	ppb	0.02
Spiked Amount	50.000	Range	89 - 115	Recovery	=	109.24%
48) surr1, 1,2-Dicethane	11.50	65	400686	50.39	ppb	0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	100.78%
69) surr3, Toluene-d8	14.93	98	1312057	48.35	ppb	0.02
Spiked Amount	50.000	Range	88 - 124	Recovery	=	96.70%
70) surr2, bfb	20.09	95	637505	52.31	ppb	0.03
Spiked Amount	50.000	Range	80 - 123	Recovery	=	104.62%

Target Compounds

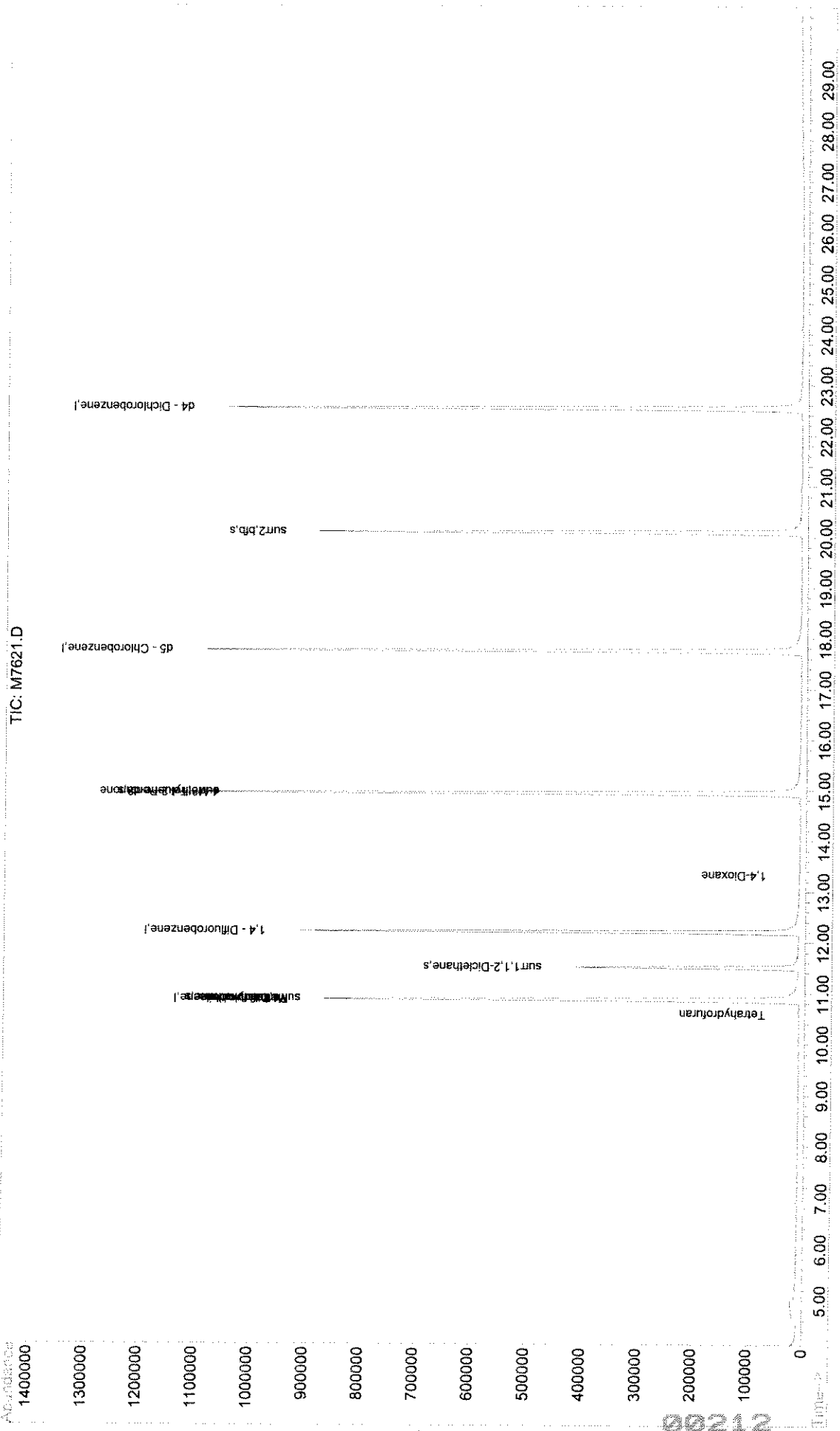
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
<del>37) Methacrylonitrile</del>	<del>10.85</del>	<del>67</del>	<del>1930</del>	<del>0.65</del>	<del>ppb</del>	<del># 1</del>
40) Tetrahydrofuran	10.60	42	2109	0.84	ppb	97
<del>52) N-Heptane</del>	<del>11.99</del>	<del>43</del>	<del>2360</del>	<del>Below Cal</del>	<del>#</del>	<del>77</del>
<del>57) 1,4 Dioxane</del>	<del>13.33</del>	<del>88</del>	<del>791</del>	<del>13.35</del>	<del>ppb</del>	<del># 23</del>
<del>64) 4 Methyl-2-Pentanone</del>	<del>14.93</del>	<del>43</del>	<del>7573</del>	<del>0.66</del>	<del>ppb</del>	<del># 1</del>
<del>86) Hexachlorobt</del>	<del>27.71</del>	<del>225</del>	<del>859</del>	<del>Below Cal</del>	<del>#</del>	<del>67</del>

BB 4/14

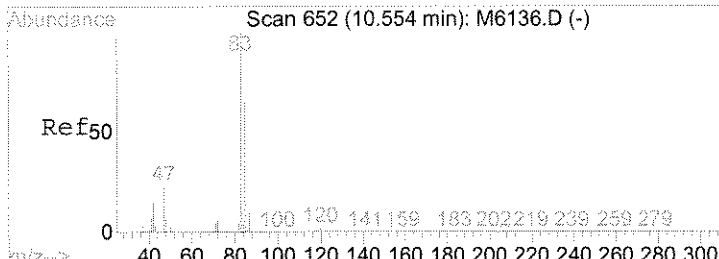
Quantitation Report

Data File : J:\ACQDATA\MSVOA7\DATA\040909\M7621.D  
Acq On : 9 Apr 2009 2:09 pm Vial: 4  
Sample : METBLK|1.0 Operator: B.Bush  
Misc : Inst : MS #7  
MS Integration Params: RTEINT.P  
Quant Time: Apr 9 14:39 2009 Multiplr: 1.00  
Quant Results File: WAT0305.RES

Method : J:\ACQDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
Title : 8260B.WATERS  
Last Update : Fri Mar 13 15:29:46 2009  
Response via : Initial Calibration

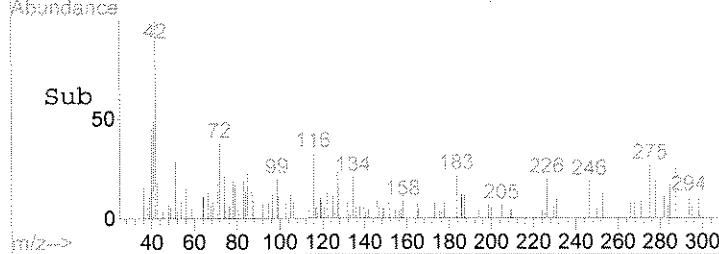
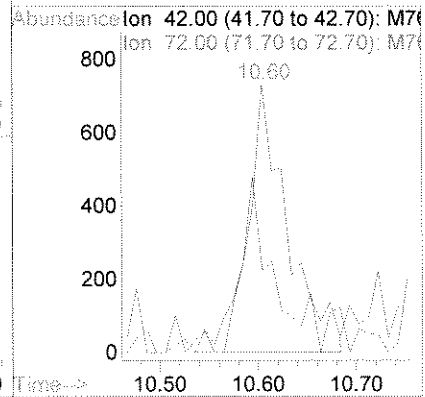
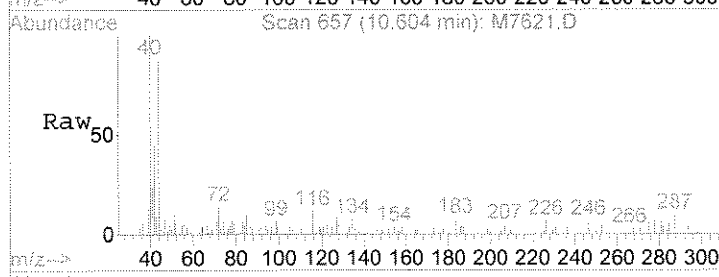


00212



#40  
 Tetrahydrofuran  
 Concen: 0.84 ppb  
 RT: 10.60 min Scan# 657  
 Delta R.T. 0.03 min  
 Lab File: M7621.D  
 Acq: 9 Apr 2009 2:09 pm

Tgt Ion	Ratio	Lower	Upper
42	100		
72	30.5	22.3	41.5



**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water  
**Sample Name:** Lab Control Sample  
**Lab Code:** RQ0902333-02

**Service Request:** R0901679  
**Date Collected:** NA  
**Date Received:** NA  
**Units:** µg/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution	Date	Date	Extraction	Analysis
					Factor	Extracted	Analyzed	Lot	Lot
1,1,1-Trichloroethane (TCA)	23.0		5.0	0.45	1	NA	4/8/09 10:58		149068
1,1,2,2-Tetrachloroethane	20.0		5.0	0.44	1	NA	4/8/09 10:58		149068
1,1,2-Trichloroethane	20.2		5.0	0.45	1	NA	4/8/09 10:58		149068
1,1-Dichloroethane (1,1-DCA)	22.0		5.0	0.64	1	NA	4/8/09 10:58		149068
1,1-Dichloroethene (1,1-DCE)	20.8		5.0	0.59	1	NA	4/8/09 10:58		149068
1,2-Dichloroethane	22.1		5.0	0.42	1	NA	4/8/09 10:58		149068
1,2-Dichloroethene, Total	42.0		10	0.93	1	NA	4/8/09 10:58		149068
1,2-Dichloropropane	21.5		5.0	0.36	1	NA	4/8/09 10:58		149068
2-Butanone (MEK)	21.6		10	1.0	1	NA	4/8/09 10:58		149068
2-Hexanone	20.3		10	0.78	1	NA	4/8/09 10:58		149068
4-Methyl-2-pentanone	21.1		10	0.71	1	NA	4/8/09 10:58		149068
Acetone	18.9	J	20	1.2	1	NA	4/8/09 10:58		149068
Benzene	21.4		5.0	0.42	1	NA	4/8/09 10:58		149068
Bromodichloromethane	22.1		5.0	0.84	1	NA	4/8/09 10:58		149068
Bromoform	20.1		5.0	0.32	1	NA	4/8/09 10:58		149068
Bromomethane	19.1		5.0	0.58	1	NA	4/8/09 10:58		149068
Carbon Disulfide	19.5		10	0.52	1	NA	4/8/09 10:58		149068
Carbon Tetrachloride	22.5		5.0	0.36	1	NA	4/8/09 10:58		149068
Chlorobenzene	20.0		5.0	0.44	1	NA	4/8/09 10:58		149068
Chloroethane	20.8		5.0	0.36	1	NA	4/8/09 10:58		149068
Chloroform	23.0		5.0	0.22	1	NA	4/8/09 10:58		149068
Chloromethane	21.9		5.0	0.96	1	NA	4/8/09 10:58		149068
Dibromochloromethane	20.5		5.0	0.43	1	NA	4/8/09 10:58		149068
Methylene Chloride	20.4		5.0	0.50	1	NA	4/8/09 10:58		149068
Ethylbenzene	20.6		5.0	0.43	1	NA	4/8/09 10:58		149068
Styrene	21.6		5.0	0.37	1	NA	4/8/09 10:58		149068
Tetrachloroethene (PCE)	20.8		5.0	0.43	1	NA	4/8/09 10:58		149068
Toluene	20.2		5.0	0.42	1	NA	4/8/09 10:58		149068
Trichloroethene (TCE)	20.6		5.0	0.63	1	NA	4/8/09 10:58		149068
Vinyl Chloride	22.3		5.0	0.52	1	NA	4/8/09 10:58		149068
Xylenes, Total	61.4		5.0	1.5	1	NA	4/8/09 10:58		149068
cis-1,3-Dichloropropene	21.4		5.0	0.38	1	NA	4/8/09 10:58		149068
trans-1,3-Dichloropropene	19.8		5.0	0.25	1	NA	4/8/09 10:58		149068

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water  
**Sample Name:** Lab Control Sample  
**Lab Code:** RQ0902333-02

**Service Request:** R0901679  
**Date Collected:** NA  
**Date Received:** NA  
**Units:** µg/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
<b>Surrogate Name</b>			<b>%Rec</b>	<b>Control Limits</b>		<b>Date Analyzed</b>	<b>Q</b>		<b>Note</b>	
4-Bromofluorobenzene			106	80-123		4/8/09 10:58				
Dibromofluoromethane			103	89-115		4/8/09 10:58				
Toluene-d8			99	88-124		4/8/09 10:58				

**Comments:**

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Data File : J:\ACQUDATA\MSVOA7\DATA\040809\M7579.D  
 Acq On : 8 Apr 2009 10:58 am  
 Sample : LCS  
 Misc : R0D9D2333-02  
 MS Integration Params: RTEINT.P  
 Quant Time: Apr 8 11:28 2009

Vial: 2  
 Operator: B.Bush  
 Inst : MS #7  
 Multiplr: 1.00

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.89	168	647857	50.00	ppb	0.05
42) 1,4 - Difluorobenzene	12.23	114	1208393	50.00	ppb	0.05
63) d5 - Chlorobenzene	17.78	117	1229234	50.00	ppb	0.05
86) d4 - Dichlorobenzene	22.57	152	614051	50.00	ppb	0.06

System Monitoring Compounds

44) surr4,Dibrflmethane	10.91	113	470147	51.36	ppb	0.05
Spiked Amount	50.000	Range 89 - 115	Recovery	=	102.72%	
48) surr1,1,2-Diclcethane	11.53	65	441196	50.79	ppb	0.05
Spiked Amount	50.000	Range 80 - 120	Recovery	=	101.58%	
69) surr3,Toluene-d8	14.96	98	1418625	49.36	ppb	0.05
Spiked Amount	50.000	Range 88 - 124	Recovery	=	98.72%	
70) surr2,bfb	20.12	95	682649	52.89	ppb	0.06
Spiked Amount	50.000	Range 80 - 123	Recovery	=	105.78%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	4.25	85	166608	23.11	ppb	100
3) Chloromethane	4.65	50	208804	21.92	ppb	97
4) Vinyl Chloride	4.88	62	161840	22.33	ppb	98
5) Bromomethane	5.58	96	125791	19.10	ppb	92
6) Chloroethane	5.76	64	125924	20.82	ppb	98
7) FREON 21	6.09	67	327429	19.69	ppb	99
8) Trichlorofluoromethane	6.25	101	215309	22.94	ppb	98
9) Diethyl Ether	6.71	59	147269	22.85	ppb	97
10) FREON 123A	6.69	67	220906	20.05	ppb	97
11) FREON 123	6.78	83	212335	19.28	ppb	99
12) Acrolein	6.96	56	135292	157.31	ppb	93
13) FREON 113	7.14	101	151757	23.41	ppb	92
14) 1,1-Diclcethene	7.18	96	130514	20.78	ppb	95
15) Acetone	7.20	43	46285	18.86	ppb	# 80
16) 2-Propanol	7.34	45	200200	500.01	ppb	97
17) Iodomethane	7.49	142	231516	16.41	ppb	98
18) Carbon Disulfide	7.65	76	507828	19.48	ppb	99
19) Acetonitrile	7.68	41	106201	122.05	ppb	96
20) Allyl Chloride	7.77	41	312376	20.26	ppb	99
21) Methyl Acetate	7.74	43	195512	24.21	ppb	99
22) Methylene Chloride	7.97	84	174059	20.43	ppb	93
23) TBA	8.02	59	299709	546.04	ppb	97
24) Acrylonitrile	8.36	53	315669	118.94	ppb	98
25) Methyl-t-Butyl Ether	8.40	73	439374	22.19	ppb	97
26) trans-1,2-Dichloroethene	8.45	96	163497	20.38	ppb	100
27) 1,1-Diclcethane	9.16	63	373662	21.96	ppb	100
28) Vinyl Acetate	9.14	86	15425	17.22	ppb	99
30) 2-Chloro-1,3-butadiene	9.32	53	267332	23.85	ppb	95
33) 2,2-Dichloropropane	10.16	77	260087	24.20	ppb	99
34) 2-Butanone	10.09	43	99927	21.55	ppb	100
35) cis-1,2-Dichloroethene	10.13	96	192031	21.62	ppb	91
36) Propionitrile	10.20	54	111284	114.27	ppb	94
37) Methacrylonitrile	10.47	67	69302	22.88	ppb	99
38) Bromochloromethane	10.55	128	98199	20.89	ppb	90
39) Chloroform	10.63	83	345055	23.00	ppb	97

(#) = qualifier out of range (m) = manual integration

BB 4/8

Data File : J:\ACQUDATA\MSVOA7\DATA\040809\M7579.D

Vial: 2

Acq On : 8 Apr 2009 10:58 am

Operator: B.Bush

Sample : LCS

Inst : MS #7

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Apr 8 11:28 2009

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)

Title : 8260B.WATERS

Last Update : Fri Mar 13 15:29:46 2009

Response via : Initial Calibration

DataAcq Meth : WAT0305

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
40) Tetrahydrofuran	10.63	42	58670	22.88	ppb	88
41) 1,1,1-Trichloroethane	11.03	97	246725	23.04	ppb	96
43) Cyclohexane	11.16	56	298969	19.33	ppb	94
45) Carbontetrachloride	11.33	117	215531	22.46	ppb	98
46) 1,1-Dichloropropene	11.29	75	280424	23.11	ppb	97
47) Iso-Butyl Alcohol	11.23	43	179177	499.13	ppb	95
49) Benzene	11.68	78	746895	21.35	ppb	100
50) 1,2-Dichloroethane	11.66	62	256054	22.10	ppb	98
52) N-Heptane	11.99	43	253619	29.93	ppb	98
53) Trichloroethene	12.76	95	195217	20.63	ppb	91
54) Methylcyclohexane	13.15	55	223812	19.35	ppb	97
55) 1,2-Dichloropropane	13.17	63	258202	21.46	ppb	99
56) Methyl Methacrylate	13.21	100	48767	22.42	ppb	91
57) 1,4-Dioxane	13.35	88	34881	538.93	ppb	88
58) Dibromomethane	13.39	93	140913	21.18	ppb	97
59) Bromodichloromethane	13.62	83	287420	22.08	ppb	99
60) 2-Nitropropane	13.99	43	95645	41.03	ppb	95
61) 2-Chloroethylvinyl Ether	14.06	63	139527	25.15	ppb	92
62) cis-1,3-Dichloropropene	14.42	75	371485	21.41	ppb	99
64) 4-Methyl-2-Pentanone	14.62	43	255105	21.13	ppb	98
65) Toluene	15.09	91	754251	20.19	ppb	99
66) trans-1,3-Dichloropropene	15.41	75	317062	19.78	ppb	97
67) Ethyl Methacrylate	15.47	69	288999	20.61	ppb	99
68) 1,1,2-Trichloroethane	15.80	83	162991	20.23	ppb	98
71) Tetrachloroethene	16.16	166	183654	20.81	ppb	95
72) 2-Hexanone	16.18	43	174102	20.30	ppb	97
73) 1,3-Dichloropropane	16.14	76	332560	19.92	ppb	99
74) Butyl Acetate	16.36	43	407304	18.78	ppb	98
75) Dibromochloromethane	16.61	129	226560	20.50	ppb	96
76) 1,2-Dibromoethane	16.90	107	203071	20.21	ppb	100
77) Chlorobenzene	17.84	112	520061	19.98	ppb	99
78) 1,1,1,2-Tetrachloroethane	17.95	131	191375	19.47	ppb	98
79) Ethylbenzene	17.99	91	884063	20.62	ppb	100
80) (m+p)Xylene	18.21	106	641181	41.05	ppb	100
81) o-Xylene	19.04	106	319715	20.30	ppb	95
82) Styrene	19.05	104	559140	21.64	ppb	92
83) Bromoform	19.50	173	134849	20.11	ppb	99
84) Isopropylbenzene	19.76	105	794374	21.57	ppb	96
85) Cyclohexanone	20.02	55	671673	421.59	ppb	99
87) 1,1,2,2-Tetrachloroethane	20.32	83	257139	19.95	ppb	96
88) Trans-1,4-Dichloro-2-buten	20.43	53	67744	24.21	ppb	77
89) 1,2,3-Trichloropropane	20.48	110	64408	19.94	ppb	96
90) n-Propylbenzene	20.61	91	957237	19.27	ppb	98
91) Bromobenzene	20.50	156	229524	19.43	ppb	97
92) 1,3,5-Trimethylbenzene	20.94	105	620308	20.26	ppb	97
93) 2-Chlorotoluene	20.86	91	600446	19.07	ppb	99
94) 4-Chlorotoluene	21.07	91	618121	18.89	ppb	100
95) tert-Butylbenzene	21.66	119	488980	19.69	ppb	98
96) 1,2,4-Trimethylbenzene	21.75	105	616068	19.95	ppb	99
97) sec-Butylbenzene	22.11	105	765307	21.57	ppb	99

(#) = qualifier out of range (m) = manual integration  
M7579.D WAT0305.M Wed Apr 08 11:28:50 2009

Data File : J:\ACQUDATA\MSVOA7\DATA\040809\M7579.D  
 Acq On : 8 Apr 2009 10:58 am  
 Sample : LCS  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Apr 8 11:28 2009

Vial: 2  
 Operator: B.Bush  
 Inst : MS #7  
 Multiplr: 1.00

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

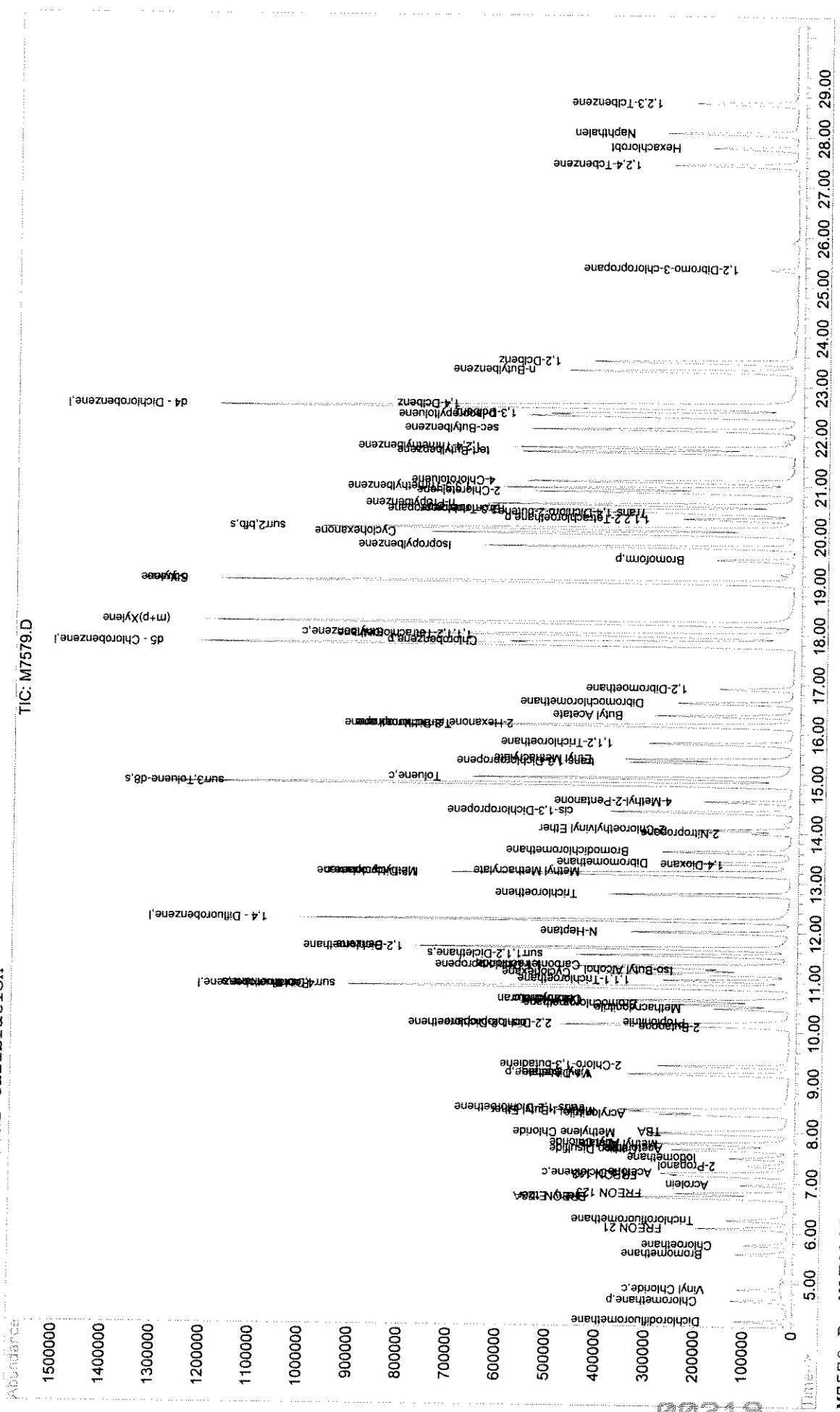
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
98) p-Isopropyltoluene	22.39	119	580758	19.87	ppb	99
99) 1,3-Dclbenz	22.44	146	387052	19.33	ppb	99
100) 1,4-Dclbenz	22.62	146	395841	19.08	ppb	98
101) n-Butylbenzene	23.30	91	555571	19.60	ppb	99
102) 1,2-Dclbenz	23.48	146	381045	19.65	ppb	99
103) 1,2-Dibromo-3-chloropropan	25.35	157	39401	18.47	ppb	95
105) 1,2,4-Tcbenzene	27.43	180	183463	19.64	ppb	100
106) Hexachlorobt	27.77	225	78827	26.14	ppb ↑ NT	99
107) Naphthalen	28.06	128	500407	20.20	ppb	100
108) 1,2,3-Tclbenzene	28.66	180	158599	18.88	ppb	97

(#) = qualifier out of range (m) = manual integration  
 M7579.D WAT0305.M Wed Apr 08 11:28:50 2009

Quantitation Report

Data File : J:\ACQDATA\MSVOA7\DATA\040809\M7579.D Vial: 2  
 Acq On : 8 Apr 2009 10:58 am Operator: B.Bush  
 Sample : LCS Inst : MS #7  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Apr 8 11:28 2009 Quant Results File: WAT0305.RES

Method : J:\ACQDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Initial Calibration



**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water  
**Sample Name:** Lab Control Sample  
**Lab Code:** RQ0902369-04

**Service Request:** R0901679  
**Date Collected:** NA  
**Date Received:** NA

**Units:** µg/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1-Trichloroethane (TCA)	25.5		5.0	0.45	1	NA	4/9/09 00:28		149259	
1,1,2,2-Tetrachloroethane	20.4		5.0	0.44	1	NA	4/9/09 00:28		149259	
1,1,2-Trichloroethane	21.7		5.0	0.45	1	NA	4/9/09 00:28		149259	
1,1-Dichloroethane (1,1-DCA)	25.3		5.0	0.64	1	NA	4/9/09 00:28		149259	
1,1-Dichloroethene (1,1-DCE)	22.8		5.0	0.59	1	NA	4/9/09 00:28		149259	
1,2-Dichloroethane	23.7		5.0	0.42	1	NA	4/9/09 00:28		149259	
1,2-Dichloroethene, Total	47.8		10	0.93	1	NA	4/9/09 00:28		149259	
1,2-Dichloropropane	23.7		5.0	0.36	1	NA	4/9/09 00:28		149259	
2-Butanone (MEK)	25.0		10	1.0	1	NA	4/9/09 00:28		149259	
2-Hexanone	23.7		10	0.78	1	NA	4/9/09 00:28		149259	
4-Methyl-2-pentanone	23.5		10	0.71	1	NA	4/9/09 00:28		149259	
Acetone	23.9		20	1.2	1	NA	4/9/09 00:28		149259	
Benzene	22.6		5.0	0.42	1	NA	4/9/09 00:28		149259	
Bromodichloromethane	24.0		5.0	0.84	1	NA	4/9/09 00:28		149259	
Bromoform	21.7		5.0	0.32	1	NA	4/9/09 00:28		149259	
Bromomethane	21.5		5.0	0.58	1	NA	4/9/09 00:28		149259	
Carbon Disulfide	24.4		10	0.52	1	NA	4/9/09 00:28		149259	
Carbon Tetrachloride	24.1		5.0	0.36	1	NA	4/9/09 00:28		149259	
Chlorobenzene	22.2		5.0	0.44	1	NA	4/9/09 00:28		149259	
Chloroethane	22.9		5.0	0.36	1	NA	4/9/09 00:28		149259	
Chloroform	25.2		5.0	0.22	1	NA	4/9/09 00:28		149259	
Chloromethane	23.8		5.0	0.96	1	NA	4/9/09 00:28		149259	
Dibromochloromethane	22.4		5.0	0.43	1	NA	4/9/09 00:28		149259	
Methylene Chloride	22.5		5.0	0.50	1	NA	4/9/09 00:28		149259	
Ethylbenzene	21.4		5.0	0.43	1	NA	4/9/09 00:28		149259	
Styrene	23.9		5.0	0.37	1	NA	4/9/09 00:28		149259	
Tetrachloroethene (PCE)	23.2		5.0	0.43	1	NA	4/9/09 00:28		149259	
Toluene	21.0		5.0	0.42	1	NA	4/9/09 00:28		149259	
Trichloroethene (TCE)	23.7		5.0	0.63	1	NA	4/9/09 00:28		149259	
Vinyl Chloride	22.6		5.0	0.52	1	NA	4/9/09 00:28		149259	
Xylenes, Total	65.1		5.0	1.5	1	NA	4/9/09 00:28		149259	
cis-1,3-Dichloropropene	22.2		5.0	0.38	1	NA	4/9/09 00:28		149259	
trans-1,3-Dichloropropene	20.7		5.0	0.25	1	NA	4/9/09 00:28		149259	

**Comments:**

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water  
**Sample Name:** Lab Control Sample  
**Lab Code:** RQ0902369-04

**Service Request:** R0901679  
**Date Collected:** NA  
**Date Received:** NA  
**Units:** µg/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
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Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
4-Bromofluorobenzene	108	80-123	4/9/09 00:28		
Dibromofluoromethane	102	89-115	4/9/09 00:28		
Toluene-d8	97	88-124	4/9/09 00:28		

**Comments:** \_\_\_\_\_

Data File : J:\ACQUDATA\MSVOA7\DATA\040809\M7600.D

Vial: 21

Acq On : 9 Apr 2009 12:28 am

Operator: B.Bush

Sample : LCS R00902369-04

Inst : MS #7

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Apr 9 0:58 2009

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)

Title : 8260B.WATERS

Last Update : Fri Mar 13 15:29:46 2009

Response via : Initial Calibration

DataAcq Meth : WAT0305

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.87	168	552753	50.00	ppb	0.03
42) 1,4 - Difluorobenzene	12.22	114	1057222	50.00	ppb	0.04
63) d5 - Chlorobenzene	17.77	117	1075526	50.00	ppb	0.04
86) d4 - Dichlorobenzene	22.55	152	527270	50.00	ppb	0.04

System Monitoring Compounds

44) surr4,Dibrflmethane	10.90	113	409852	51.17	ppb	0.04
Spiked Amount	50.000	Range 89 - 115	Recovery =	102.34%		
48) surr1,1,2-Dicethane	11.52	65	366728	48.26	ppb	0.04
Spiked Amount	50.000	Range 80 - 120	Recovery =	96.52%		
69) surr3,Toluene-d8	14.95	98	1225166	48.72	ppb	0.04
Spiked Amount	50.000	Range 88 - 124	Recovery =	97.44%		
70) surr2,bfb	20.11	95	607247	53.77	ppb	0.05
Spiked Amount	50.000	Range 80 - 123	Recovery =	107.54%		

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	4.24	85	165308	26.87	ppb	99
3) Chloromethane	4.64	50	193675	23.83	ppb	95
4) Vinyl Chloride	4.87	62	139950	22.63	ppb	98
5) Bromomethane	5.57	96	121051	21.54	ppb	100
6) Chloroethane	5.74	64	117933	22.86	ppb	96
7) FREON 21	6.08	67	330145	23.27	ppb	99
8) Trichlorofluoromethane	6.25	101	206081	25.73	ppb	95
9) Diethyl Ether	6.70	59	127962	23.27	ppb	100
10) FREON 123A	6.68	67	217756	23.17	ppb	97
11) FREON 123	6.78	83	205349	21.86	ppb	98
12) Acrolein	6.95	56	110206	150.19	ppb	94
13) FREON 113	7.12	101	141828	25.64	ppb	96
14) 1,1-Dicethene	7.17	96	122322	22.83	ppb	89
15) Acetone	7.19	43	50062	23.90	ppb	95
16) 2-Propanol	7.33	45	194776	570.16	ppb	98
17) Iodomethane	7.48	142	243638	20.24	ppb	99
18) Carbon Disulfide	7.64	76	543216	24.42	ppb	96
19) Acetonitrile	7.67	41	91284	122.95	ppb	93
20) Allyl Chloride	7.77	41	281701	21.42	ppb	98
21) Methyl Acetate	7.73	43	186253	27.03	ppb	99
22) Methylene Chloride	7.97	84	163667	22.51	ppb	98
23) TBA	8.02	59	254977	544.47	ppb	98
24) Acrylonitrile	8.35	53	288813	127.55	ppb	99
25) Methyl-t-Butyl Ether	8.39	73	396591	23.48	ppb	98
26) trans-1,2-Dichloroethene	8.44	96	157003	22.94	ppb	96
27) 1,1-Dicethane	9.15	63	366806	25.27	ppb	97
28) Vinyl Acetate	9.13	86	11346	14.70	ppb	93
30) 2-Chloro-1,3-butadiene	9.31	53	290756	30.40	ppb	99
33) 2,2-Dichloropropane	10.15	77	191927	20.93	ppb	99
34) 2-Butanone	10.07	43	98759	24.96	ppb	100
35) cis-1,2-Dichloroethene	10.12	96	188516	24.88	ppb	98
36) Propionitrile	10.19	54	105513	126.98	ppb	90
37) Methacrylonitrile	10.46	67	62005	23.99	ppb	98
38) Bromochloromethane	10.54	128	91962	22.93	ppb	99
39) Chloroform	10.62	83	322859	25.23	ppb	94

(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\MSVOA7\DATA\040809\M7600.D  
 Acq On : 9 Apr 2009 12:28 am  
 Sample : LCS  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Apr 9 0:58 2009

Vial: 21  
 Operator: B.Bush  
 Inst : MS #7  
 Multiplr: 1.00

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
40) Tetrahydrofuran	10.62	42	55392	25.32	ppb	91
41) 1,1,1-Trichloroethane	11.03	97	232772	25.48	ppb	97
43) Cyclohexane	11.15	56	296984	21.94	ppb	96
45) Carbontetrachloride	11.32	117	201945	24.05	ppb	94
46) 1,1-Dichloropropene	11.28	75	259760	24.47	ppb	99
47) Iso-Butyl Alcohol	11.22	43	159579	508.10	ppb	98
49) Benzene	11.67	78	691352	22.59	ppb	98
50) 1,2-Dichloroethane	11.65	62	239689	23.65	ppb	96
52) N-Heptane	11.99	43	211895	28.52	ppb	99
53) Trichloroethene	12.75	95	195747	23.65	ppb	96
54) Methylcyclohexane	13.13	55	222179	21.96	ppb	92
55) 1,2-Dichloropropane	13.16	63	249255	23.68	ppb	98
56) Methyl Methacrylate	13.19	100	41557	21.84	ppb	91
57) 1,4-Dioxane	13.33	88	32563	575.06	ppb	97
58) Dibromomethane	13.38	93	132192	22.71	ppb	96
59) Bromodichloromethane	13.61	83	273436	24.00	ppb	98
60) 2-Nitropropane	13.98	43	91983	45.11	ppb	95
61) 2-Chloroethylvinyl Ether	14.05	63	142923	29.45	ppb	100
62) cis-1,3-Dichloropropene	14.41	75	336247	22.16	ppb	99
64) 4-Methyl-2-Pentanone	14.61	43	248476	23.53	ppb	97
65) Toluene	15.08	91	685433	20.98	ppb	96
66) trans-1,3-Dichloropropene	15.40	75	290142	20.68	ppb	99
67) Ethyl Methacrylate	15.47	69	266875	21.75	ppb	99
68) 1,1,2-Trichloroethane	15.79	83	153056	21.71	ppb	99
71) Tetrachloroethene	16.15	166	178790	23.15	ppb	99
72) 2-Hexanone	16.17	43	177513	23.65	ppb	94
73) 1,3-Dichloropropane	16.13	76	325098	22.25	ppb	99
74) Butyl Acetate	16.34	43	371018	19.55	ppb	97
75) Dibromochloromethane	16.60	129	216175	22.35	ppb	95
76) 1,2-Dibromoethane	16.89	107	192280	21.87	ppb	99
77) Chlorobenzene	17.83	112	504860	22.16	ppb	98
78) 1,1,1,2-Tetrachloroethane	17.94	131	183860	21.38	ppb	99
79) Ethylbenzene	17.98	91	803534	21.42	ppb	99
80) (m+p)Xylene	18.20	106	582519	42.62	ppb	98
81) o-Xylene	19.03	106	310002	22.49	ppb	94
82) Styrene	19.04	104	540789	23.92	ppb	94
83) Bromoform	19.49	173	127125	21.67	ppb	98
84) Isopropylbenzene	19.75	105	738045	22.90	ppb	99
85) Cyclohexanone	20.01	55	578044	414.67	ppb	96
87) 1,1,2,2-Tetrachloroethane	20.31	83	226006	20.42	ppb	99
88) Trans-1,4-Dichloro-2-buten	20.43	53	55806	23.23	ppb	74
89) 1,2,3-Trichloropropane	20.46	110	59702	21.52	ppb	88
90) n-Propylbenzene	20.60	91	914141	21.43	ppb	97
91) Bromobenzene	20.49	156	215044	21.20	ppb	96
92) 1,3,5-Trimethylbenzene	20.93	105	582646	22.16	ppb	98
93) 2-Chlorotoluene	20.85	91	561917	20.79	ppb	97
94) 4-Chlorotoluene	21.06	91	596600	21.23	ppb	99
95) tert-Butylbenzene	21.65	119	458910	21.52	ppb	98
96) 1,2,4-Trimethylbenzene	21.74	105	576701	21.74	ppb	99
97) sec-Butylbenzene	22.10	105	723010	23.73	ppb	97

(#) = qualifier out of range (m) = manual integration  
 M7600.D WAT0305.M Thu Apr 09 00:58:50 2009



Data File : J:\ACQUDATA\MSVOA7\DATA\040809\M7600.D

Vial: 21

Acq On : 9 Apr 2009 12:28 am

Operator: B.Bush

Sample : LCS

Inst : MS #7

Misc :

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Apr 9 0:58 2009

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)

Title : 8260B.WATERS

Last Update : Fri Mar 13 15:29:46 2009

Response via : Initial Calibration

DataAcq Meth : WAT0305

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
98) p-Isopropyltoluene	22.37	119	555283	22.12	ppb	97
99) 1,3-Dclbenz	22.42	146	371141	21.59	ppb	97
100) 1,4-Dclbenz	22.61	146	376355	21.13	ppb	96
101) n-Butylbenzene	23.29	91	538610	22.13	ppb	98
102) 1,2-Dclbenz	23.47	146	365949	21.98	ppb	98
103) 1,2-Dibromo-3-chloropropan	25.34	157	36471	19.91	ppb #	85
105) 1,2,4-Tcbenzene	27.41	180	171086	21.33	ppb	99
106) Hexachlorobt	27.76	225	77894	30.36	ppb ↑ NT	90
107) Naphthalen	28.05	128	468756	22.04	ppb	96
108) 1,2,3-Tclbenzene	28.65	180	152089	21.09	ppb	98

(#) = qualifier out of range (m) = manual integration

M7600.D WAT0305.M Thu Apr 09 00:58:51 2009

00224

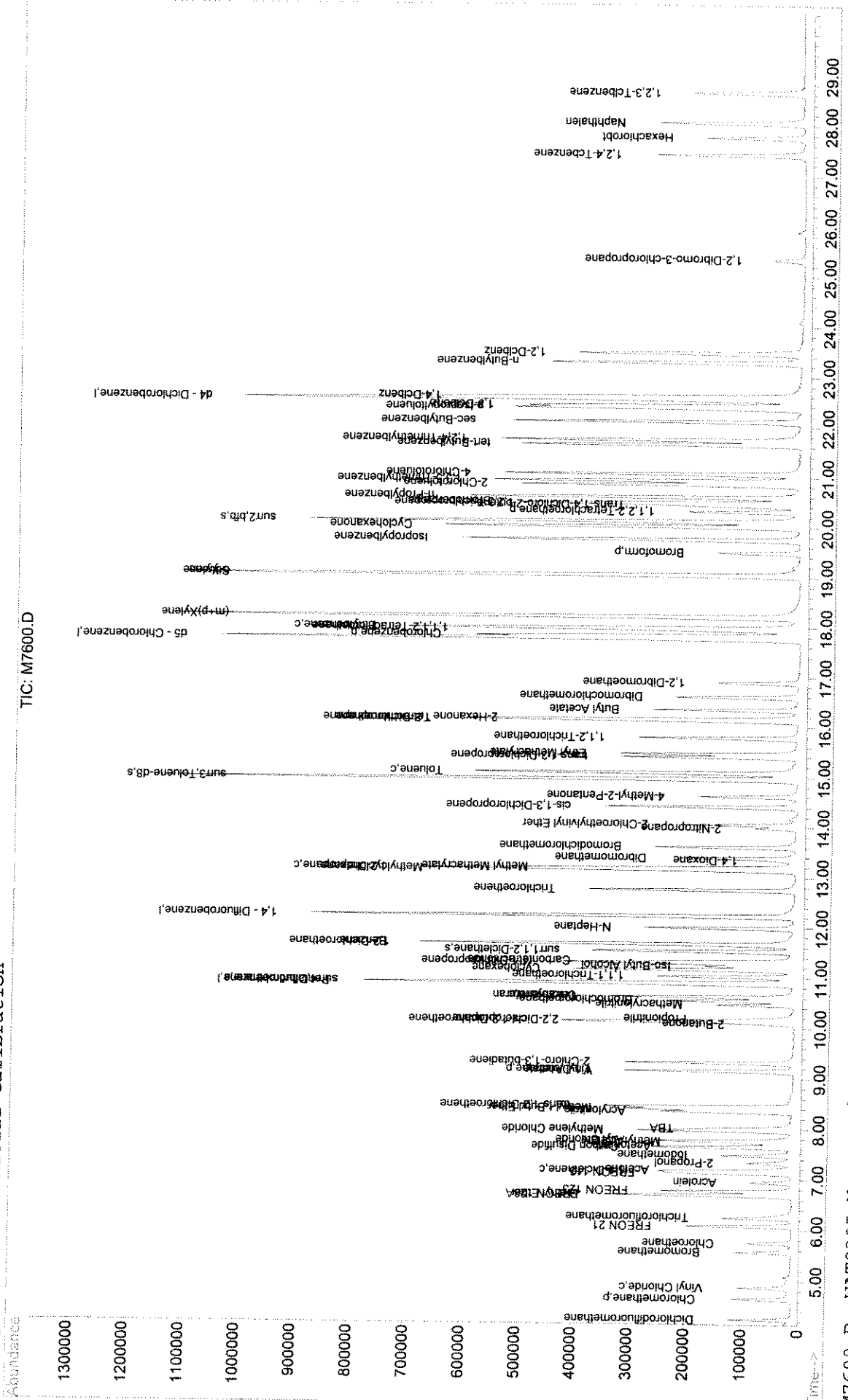
Quantitation Report

Data File : J:\ACQUDATA\MSVOA7\DATA\040809\M7600.D  
 Acq On : 9 Apr 2009 12:28 am  
 Sample : LCS  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Apr 9 0:58 2009

Vial: 21  
 Operator: B.Bush  
 Inst : MS #7  
 Multiplr: 1.00

Quant Results File: WAT0305.RES

Method : J:\ACQUDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Initial Calibration



**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water  
**Sample Name:** Lab Control Sample  
**Lab Code:** RQ0902441-02

**Service Request:** R0901679  
**Date Collected:** NA  
**Date Received:** NA  
**Units:** µg/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1-Trichloroethane (TCA)	21.4		5.0	0.45	1	NA	4/9/09 12:50		149502	
1,1,2,2-Tetrachloroethane	20.9		5.0	0.44	1	NA	4/9/09 12:50		149502	
1,1,2-Trichloroethane	20.2		5.0	0.45	1	NA	4/9/09 12:50		149502	
1,1-Dichloroethane (1,1-DCA)	20.8		5.0	0.64	1	NA	4/9/09 12:50		149502	
1,1-Dichloroethene (1,1-DCE)	19.6		5.0	0.59	1	NA	4/9/09 12:50		149502	
1,2-Dichloroethane	23.1		5.0	0.42	1	NA	4/9/09 12:50		149502	
1,2-Dichloroethene, Total	39.7		10	0.93	1	NA	4/9/09 12:50		149502	
1,2-Dichloropropane	21.2		5.0	0.36	1	NA	4/9/09 12:50		149502	
2-Butanone (MEK)	23.2		10	1.0	1	NA	4/9/09 12:50		149502	
2-Hexanone	22.2		10	0.78	1	NA	4/9/09 12:50		149502	
4-Methyl-2-pentanone	22.4		10	0.71	1	NA	4/9/09 12:50		149502	
Acetone	21.7		20	1.2	1	NA	4/9/09 12:50		149502	
Benzene	21.7		5.0	0.42	1	NA	4/9/09 12:50		149502	
Bromodichloromethane	21.4		5.0	0.84	1	NA	4/9/09 12:50		149502	
Bromoform	20.2		5.0	0.32	1	NA	4/9/09 12:50		149502	
Bromomethane	18.3		5.0	0.58	1	NA	4/9/09 12:50		149502	
Carbon Disulfide	21.4		10	0.52	1	NA	4/9/09 12:50		149502	
Carbon Tetrachloride	21.6		5.0	0.36	1	NA	4/9/09 12:50		149502	
Chlorobenzene	19.0		5.0	0.44	1	NA	4/9/09 12:50		149502	
Chloroethane	20.3		5.0	0.36	1	NA	4/9/09 12:50		149502	
Chloroform	21.9		5.0	0.22	1	NA	4/9/09 12:50		149502	
Chloromethane	20.7		5.0	0.96	1	NA	4/9/09 12:50		149502	
Dibromochloromethane	20.2		5.0	0.43	1	NA	4/9/09 12:50		149502	
Methylene Chloride	20.3		5.0	0.50	1	NA	4/9/09 12:50		149502	
Ethylbenzene	19.3		5.0	0.43	1	NA	4/9/09 12:50		149502	
Styrene	20.3		5.0	0.37	1	NA	4/9/09 12:50		149502	
Tetrachloroethene (PCE)	19.8		5.0	0.43	1	NA	4/9/09 12:50		149502	
Toluene	19.2		5.0	0.42	1	NA	4/9/09 12:50		149502	
Trichloroethene (TCE)	20.5		5.0	0.63	1	NA	4/9/09 12:50		149502	
Vinyl Chloride	22.5		5.0	0.52	1	NA	4/9/09 12:50		149502	
Xylenes, Total	58.2		5.0	1.5	1	NA	4/9/09 12:50		149502	
cis-1,3-Dichloropropene	22.0		5.0	0.38	1	NA	4/9/09 12:50		149502	
trans-1,3-Dichloropropene	20.2		5.0	0.25	1	NA	4/9/09 12:50		149502	

**Comments:**

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water  
**Sample Name:** Lab Control Sample  
**Lab Code:** RQ0902441-02

**Service Request:** R0901679  
**Date Collected:** NA  
**Date Received:** NA  
**Units:** µg/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis		
								Lot	Lot	Note
<b>Surrogate Name</b>			<b>%Rec</b>	<b>Control Limits</b>		<b>Date Analyzed</b>	<b>Q</b>	<b>Note</b>		
4-Bromofluorobenzene			107	80-123		4/9/09 12:50				
Dibromofluoromethane			108	89-115		4/9/09 12:50				
Toluene-d8			97	88-124		4/9/09 12:50				

**Comments:**

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Quantitation Report (Not Reviewed)

Data File : J:\ACQUDATA\MSVOA7\DATA\040909\M7619.D  
 Acq On : 9 Apr 2009 12:50 pm  
 Sample : LCS R00902441-02  
 Misc :  
 MS Integration Params: RTEINT.P  
 Quant Time: Apr 9 13:20 2009

Vial: 2  
 Operator: B.Bush  
 Inst : MS #7  
 Multiplr: 1.00

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.86	168	638115	50.00	ppb	0.02
42) 1,4 - Difluorobenzene	12.20	114	1121424	50.00	ppb	0.02
63) d5 - Chlorobenzene	17.75	117	1178280	50.00	ppb	0.02
86) d4 - Dichlorobenzene	22.53	152	560502	50.00	ppb	0.02

System Monitoring Compounds

44) surr4, Dibromomethane	10.88	113	457301	53.83	ppb	0.02
Spiked Amount	50.000	Range	89 - 115	Recovery	=	107.66%
48) surr1, 1,2-Dichloroethane	11.50	65	420457	52.16	ppb	0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	104.32%
69) surr3, Toluene-d8	14.93	98	1337829	48.56	ppb	0.02
Spiked Amount	50.000	Range	88 - 124	Recovery	=	97.12%
70) surr2, bfb	20.10	95	659485	53.30	ppb	0.03
Spiked Amount	50.000	Range	80 - 123	Recovery	=	106.60%

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	4.23	85	162664	22.91	ppb	97
3) Chloromethane	4.63	50	194251	20.70	ppb	98
4) Vinyl Chloride	4.86	62	160302	22.46	ppb	100
5) Bromomethane	5.55	96	118462	18.26	ppb	97
6) Chloroethane	5.74	64	120677	20.26	ppb	96
7) FREON 21	6.07	67	304184	18.57	ppb	99
8) Trichlorofluoromethane	6.23	101	202982	21.95	ppb	99
9) Diethyl Ether	6.68	59	145001	22.84	ppb	98
10) FREON 123A	6.66	67	215925	19.90	ppb	94
11) FREON 123	6.76	83	198880	18.34	ppb	94
12) Acrolein	6.93	56	133982	158.16	ppb	87
13) FREON 113	7.12	101	142535	22.32	ppb	96
14) 1,1-Dichloroethene	7.16	96	121157	19.59	ppb	94
15) Acetone	7.18	43	52425	21.68	ppb	97
16) 2-Propanol	7.31	45	217034	550.33	ppb	98
17) Iodomethane	7.46	142	247779	17.83	ppb	99
18) Carbon Disulfide	7.62	76	549858	21.41	ppb	99
19) Acetonitrile	7.66	41	108972	127.14	ppb	92
20) Allyl Chloride	7.75	41	301421	19.85	ppb	97
21) Methyl Acetate	7.72	43	201033	25.28	ppb	100
22) Methylene Chloride	7.95	84	170705	20.34	ppb	96
23) TBA	8.00	59	304676	563.57	ppb	99
24) Acrylonitrile	8.33	53	306199	117.14	ppb	98
25) Methyl-t-Butyl Ether	8.39	73	421739	21.63	ppb	97
26) trans-1,2-Dichloroethene	8.43	96	147427	18.66	ppb	95
27) 1,1-Dichloroethane	9.14	63	348278	20.79	ppb	100
28) Vinyl Acetate	9.12	86	16885	19.26	ppb	86
30) 2-Chloro-1,3-butadiene	9.29	53	276030	25.00	ppb	96
33) 2,2-Dichloropropane	10.13	77	241844	22.85	ppb	99
34) 2-Butanone	10.06	43	105771	23.16	ppb	97
35) cis-1,2-Dichloroethene	10.10	96	184457	21.08	ppb	99
36) Propionitrile	10.18	54	113195	118.00	ppb	94
37) Methacrylonitrile	10.44	67	64443	21.60	ppb	95
38) Bromochloromethane	10.53	128	93338	20.16	ppb	98
39) Chloroform	10.60	83	323751	21.91	ppb	93

BB 4/9

(#) = qualifier out of range (m) = manual integration  
 M7619.D WAT0305.M Thu Apr 09 13:21:07 2009

Quantitation Report (Not Reviewed)

Data File : J:\ACQUDATA\MSVOA7\DATA\040909\M7619.D Vial: 2  
 Acq On : 9 Apr 2009 12:50 pm Operator: B.Bush  
 Sample : LCS Inst : MS #7  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Apr 9 13:20 2009 Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
40) Tetrahydrofuran	10.60	42	59759	23.66	ppb	# 80
41) 1,1,1-Trichloroethane	11.01	97	225279	21.36	ppb	98
43) Cyclohexane	11.14	56	297826	20.75	ppb	99
45) Carbontetrachloride	11.30	117	192365	21.60	ppb	94
46) 1,1-Dichloropropene	11.26	75	255918	22.73	ppb	100
47) Iso-Butyl Alcohol	11.21	43	188493	565.80	ppb	98
49) Benzene	11.65	78	703685	21.68	ppb	98
50) 1,2-Dichloroethane	11.64	62	247757	23.05	ppb	98
52) N-Heptane	11.97	43	232694	29.58	ppb	↑ NT 100
53) Trichloroethene	12.73	95	180337	20.54	ppb	96
54) Methylcyclohexane	13.13	55	216950	20.21	ppb	99
55) 1,2-Diclpropane	13.15	63	236147	21.15	ppb	97
56) Methyl Methacrylate	13.19	100	45800	22.69	ppb	99
57) 1,4-Dioxane	13.32	88	31313	521.32	ppb	91
58) Dibromomethane	13.36	93	136779	22.15	ppb	95
59) Bromodichloromethane	13.59	83	258372	21.38	ppb	95
60) 2-Nitropropane	13.97	43	97827	45.23	ppb	97
61) 2-Chloroethylvinyl Ether	14.03	63	149050	28.95	ppb	✓ SK 93
62) cis-1,3-Dichloropropene	14.39	75	354356	22.01	ppb	99
64) 4-Methyl-2-Pentanone	14.60	43	259211	22.40	ppb	99
65) Toluene	15.06	91	686668	19.18	ppb	99
66) trans-1,3-Dichloropropene	15.38	75	310503	20.21	ppb	98
67) Ethyl Methacrylate	15.44	69	290888	21.64	ppb	98
68) 1,1,2-Trichloroethane	15.76	83	155956	20.19	ppb	96
71) Tetrachloroethene	16.13	166	167553	19.80	ppb	93
72) 2-Hexanone	16.15	43	182216	22.16	ppb	100
73) 1,3-Dichloropropene	16.11	76	318955	19.93	ppb	100
74) Butyl Acetate	16.33	43	405278	19.50	ppb	98
75) Dibromochloromethane	16.58	129	213484	20.15	ppb	96
76) 1,2-Dibromoethane	16.87	107	192492	19.99	ppb	94
77) Chlorobenzene	17.81	112	473776	18.99	ppb	98
78) 1,1,1,2-Tetrachloroethane	17.93	131	179549	19.06	ppb	97
79) Ethylbenzene	17.97	91	794283	19.32	ppb	99
80) (m+p)Xylene	18.18	106	580536	38.77	ppb	98
81) o-Xylene	19.01	106	292606	19.38	ppb	99
82) Styrene	19.02	104	501871	20.26	ppb	95
83) Bromoform	19.47	173	129912	20.21	ppb	98
84) Isopropylbenzene	19.73	105	677349	19.19	ppb	99
85) Cyclohexanone	19.99	55	641665	420.17	ppb	100
87) 1,1,2,2-Tetrachloroethane	20.29	83	245357	20.85	ppb	98
88) Trans-1,4-Dichloro-2-buten	20.40	53	62241	24.37	ppb	85
89) 1,2,3-Trichloropropane	20.44	110	56553	19.18	ppb	# 79
90) n-Propylbenzene	20.58	91	841317	18.56	ppb	99
91) Bromobenzene	20.48	156	204994	19.01	ppb	90
92) 1,3,5-Trimethylbenzene	20.90	105	503085	18.00	ppb	96
93) 2-Chlorotoluene	20.83	91	568685	19.79	ppb	98
94) 4-Chlorotoluene	21.04	91	527269	17.65	ppb	97
95) tert-Butylbenzene	21.62	119	423605	18.69	ppb	100
96) 1,2,4-Trimethylbenzene	21.72	105	547408	19.42	ppb	99
97) sec-Butylbenzene	22.09	105	664001	20.51	ppb	98

(#) = qualifier out of range (m) = manual integration  
 M7619.D WAT0305.M Thu Apr 09 13:21:08 2009

Quantitation Report (Not Reviewed)

Data File : J:\ACQUDATA\MSVOA7\DATA\040909\M7619.D Vial: 2  
 Acq On : 9 Apr 2009 12:50 pm Operator: B.Bush  
 Sample : LCS Inst : MS #7  
 Misc : Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Apr 9 13:20 2009 Quant Results File: WAT0305.RES

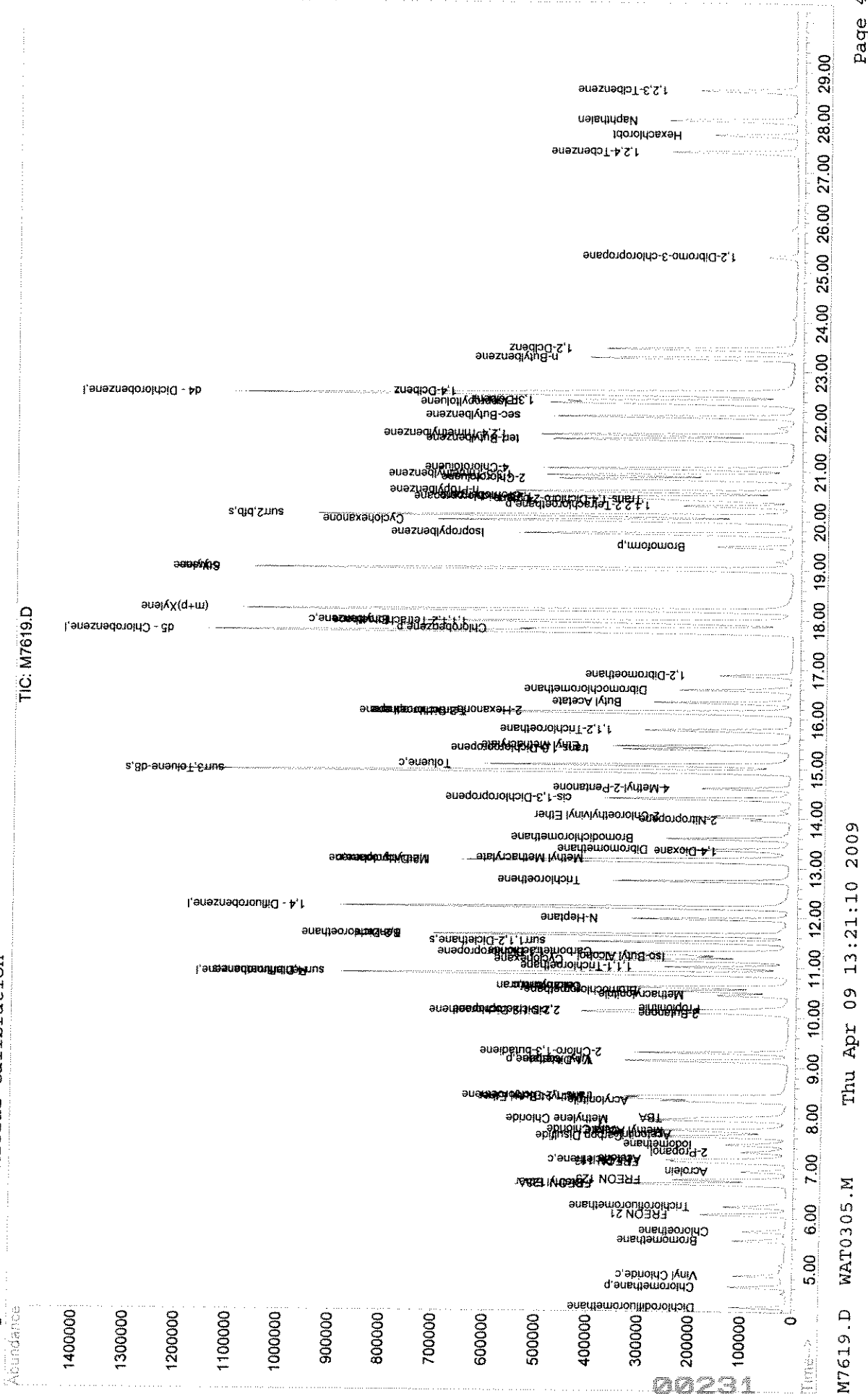
Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
98) p-Isopropyltoluene	22.35	119	520813	19.52	ppb	97
99) 1,3-Dclbenz	22.40	146	348387	19.06	ppb	99
100) 1,4-Dclbenz	22.58	146	348729	18.42	ppb	99
101) n-Butylbenzene	23.26	91	495148	19.13	ppb	99
102) 1,2-Dclbenz	23.45	146	336027	18.99	ppb	96
103) 1,2-Dibromo-3-chloropropan	25.31	157	38298	19.67	ppb	90
105) 1,2,4-Tcbenzene	27.39	180	164428	19.28	ppb	97
106) Hexachlorobt	27.73	225	72161	26.22	ppb	90
107) Naphthalen	28.03	128	473226	20.93	ppb	100
108) 1,2,3-Tclbenzene	28.62	180	141269	18.42	ppb	100

Quantitation Report

Data File : J:\ACQDATA\MSVOA7\DATA\040909\M7619.D Vial: 2  
Acq On : 9 Apr 2009 12:50 pm Operator: B.Bush  
Sample : LCS Inst : MS #7  
Misc : Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Apr 9 13:20 2009 Quant Results File: WAT0305.RES

Method : J:\ACQDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
Title : 8260B.WATERS  
Last Update : Fri Mar 13 15:29:46 2009  
Response via : Initial Calibration





## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water  
**Sample Name:** WG-5513-032609-001  
**Lab Code:** RQ0902333-03  
**Run Type:** Matrix Spike

**Service Request:** R0901679  
**Date Collected:** 3/26/09 0900  
**Date Received:** 3/27/09

**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1-Trichloroethane (TCA)	63.6		5.0	0.45	1	NA	4/8/09 20:45		149068	
1,1,2,2-Tetrachloroethane	48.3		5.0	0.44	1	NA	4/8/09 20:45		149068	
1,1,2-Trichloroethane	49.4		5.0	0.45	1	NA	4/8/09 20:45		149068	
1,1-Dichloroethane (1,1-DCA)	56.8		5.0	0.64	1	NA	4/8/09 20:45		149068	
1,1-Dichloroethene (1,1-DCE)	52.1		5.0	0.59	1	NA	4/8/09 20:45		149068	
1,2-Dichloroethane	55.4		5.0	0.42	1	NA	4/8/09 20:45		149068	
1,2-Dichloroethene, Total	127		10	0.93	1	NA	4/8/09 20:45		149068	
1,2-Dichloropropane	53.0		5.0	0.36	1	NA	4/8/09 20:45		149068	
2-Butanone (MEK)	56.9		10	1.0	1	NA	4/8/09 20:45		149068	
2-Hexanone	52.8		10	0.78	1	NA	4/8/09 20:45		149068	
4-Methyl-2-pentanone	53.5		10	0.71	1	NA	4/8/09 20:45		149068	
Acetone	56.0		20	1.2	1	NA	4/8/09 20:45		149068	
Benzene	52.1		5.0	0.42	1	NA	4/8/09 20:45		149068	
Bromodichloromethane	53.9		5.0	0.84	1	NA	4/8/09 20:45		149068	
Bromoform	50.4		5.0	0.32	1	NA	4/8/09 20:45		149068	
Bromomethane	42.3		5.0	0.58	1	NA	4/8/09 20:45		149068	
Carbon Disulfide	48.0		10	0.52	1	NA	4/8/09 20:45		149068	
Carbon Tetrachloride	56.6		5.0	0.36	1	NA	4/8/09 20:45		149068	
Chlorobenzene	51.6		5.0	0.44	1	NA	4/8/09 20:45		149068	
Chloroethane	55.5		5.0	0.36	1	NA	4/8/09 20:45		149068	
Chloroform	61.2		5.0	0.22	1	NA	4/8/09 20:45		149068	
Chloromethane	63.6		5.0	0.96	1	NA	4/8/09 20:45		149068	
Dibromochloromethane	51.1		5.0	0.43	1	NA	4/8/09 20:45		149068	
Methylene Chloride	52.4		5.0	0.50	1	NA	4/8/09 20:45		149068	
Ethylbenzene	51.8		5.0	0.43	1	NA	4/8/09 20:45		149068	
Styrene	40.8		5.0	0.37	1	NA	4/8/09 20:45		149068	
Tetrachloroethene (PCE)	53.6		5.0	0.43	1	NA	4/8/09 20:45		149068	
Toluene	51.5		5.0	0.42	1	NA	4/8/09 20:45		149068	
Trichloroethene (TCE)	59.6		5.0	0.63	1	NA	4/8/09 20:45		149068	
Vinyl Chloride	63.8		5.0	0.52	1	NA	4/8/09 20:45		149068	
Xylenes, Total	154		5.0	1.5	1	NA	4/8/09 20:45		149068	
cis-1,3-Dichloropropene	52.6		5.0	0.38	1	NA	4/8/09 20:45		149068	
trans-1,3-Dichloropropene	48.6		5.0	0.25	1	NA	4/8/09 20:45		149068	

**Comments:**

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water  
**Sample Name:** WG-5513-032609-001  
**Lab Code:** RQ0902333-03  
**Run Type:** Matrix Spike

**Service Request:** R0901679  
**Date Collected:** 3/26/09 0900  
**Date Received:** 3/27/09  
**Units:** µg/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Surrogate Name			%Rec	Control Limits		Date Analyzed	Q		Note	
4-Bromofluorobenzene			109	80-123		4/8/09 20:45				
Dibromofluoromethane			104	89-115		4/8/09 20:45				
Toluene-d8			98	88-124		4/8/09 20:45				

**Comments:**

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Data File : J:\ACQUDATA\MSVOA7\DATA\040809\M7594.D Vial: 15  
 Acq On : 8 Apr 2009 8:45 pm Operator: B.Bush  
 Sample : R0901679-001MS|1.0 R00902333-03 Inst : MS #7  
 Misc : CRA, 8260, 4769, T4 Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Apr 10 15:28 2009 Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.87	168	549732m 83	50.00	ppb	0.03
42) 1,4 - Difluorobenzene	12.22	114	1073044	50.00	ppb	0.04
63) d5 - Chlorobenzene	17.77	117	1083061	50.00	ppb	0.04
86) d4 - Dichlorobenzene	22.55	152	551144	50.00	ppb	0.04

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) surr4,Dibrflmethane	10.90	113	423435	52.09	ppb	0.04
Spiked Amount	50.000	Range	89 - 115	Recovery	=	104.18%
48) surr1,1,2-Diclcethane	11.52	65	400859	51.97	ppb	0.04
Spiked Amount	50.000	Range	80 - 120	Recovery	=	103.94%
69) surr3,Toluene-d8	14.95	98	1238485	48.91	ppb	0.04
Spiked Amount	50.000	Range	88 - 124	Recovery	=	97.82%
70) surr2,bfb	20.11	95	620781	54.58	ppb	0.04
Spiked Amount	50.000	Range	80 - 123	Recovery	=	109.16%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	4.24	85	394018	64.41	ppb	99
3) Chloromethane	4.64	50	514470	63.64	ppb	96
4) Vinyl Chloride	4.87	62	392034	63.75	ppb	97
5) Bromomethane	5.57	96	236475	42.32	ppb	97
6) Chloroethane	5.76	64	284829	55.51	ppb	100
7) FREON 21	6.08	67	852000	60.37	ppb	98
8) Trichlorofluoromethane	6.24	101	510714	64.11	ppb	99
9) Diethyl Ether	6.70	59	320564	58.62	ppb	96
10) FREON 123A	6.68	67	570975	61.08	ppb	94
11) FREON 123	6.77	83	525306	56.22	ppb	98
12) Acrolein	6.95	56	260414	356.84	ppb	92
13) FREON 113	7.13	101	342006	62.18	ppb	99
14) 1,1-Diclcethene	7.18	96	277553	52.09	ppb	96
15) Acetone	7.19	43	116616	55.99	ppb	99
16) 2-Propanol	7.32	45	467883	1377.15	ppb	97
17) Iodomethane	7.48	142	564626	47.17	ppb	93
18) Carbon Disulfide	7.64	76	1060601	47.95	ppb	100
19) Acetonitrile	7.67	41	221861	300.48	ppb	95
20) Allyl Chloride	7.77	41	653423	49.95	ppb	99
21) Methyl Acetate	7.74	43	375105	54.75	ppb	100
23) TBA	8.01	59	604349	1297.61	ppb	99
24) Acrylonitrile	8.34	53	617525	274.22	ppb	99
25) Methyl-t-Butyl Ether	8.40	73	955426	56.87	ppb	97
26) trans-1,2-Dichloroethene	8.45	96	348015	51.13	ppb	95
27) 1,1-Diclcethane	9.16	63	819744	56.79	ppb	99
28) Vinyl Acetate	9.15	86	30138	41.08	ppb	85
30) 2-Chloro-1,3-butadiene	9.31	53	563168	59.21	ppb	91
33) 2,2-Dichloropropane	10.15	77	496029	54.39	ppb	99
34) 2-Butanone	10.07	43	223925	56.91	ppb	100
35) cis-1,2-Dichloroethene	10.12	96	568596	75.44	ppb	95
36) Propionitrile	10.19	54	243842	295.07	ppb	96
37) Methacrylonitrile	10.47	67	139066	54.10	ppb	96
38) Bromochloromethane	10.55	128	205175	51.45	ppb	99
39) Chloroform	10.62	83	779166	61.22	ppb	99
40) Tetrahydrofuran	10.63	42	126892	58.32	ppb	93

BB4/10

Data File : J:\ACQUDATA\MSVOA7\DATA\040809\M7594.D Vial: 15  
 Acq On : 8 Apr 2009 8:45 pm Operator: B.Bush  
 Sample : R0901679-001MS|1.0 Inst : MS #7  
 Misc : CRA, 8260, 4769, T4 Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Apr 10 15:28 2009 Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) 1,1,1-Trichloroethane	11.02	97	578057	63.63	ppb	96
43) Cyclohexane	11.16	56	780687	56.83	ppb	97
45) Carbontetrachloride	11.33	117	481907	56.55	ppb	96
46) 1,1-Dichloropropene	11.29	75	623005	57.82	ppb	98
47) Iso-Butyl Alcohol	11.23	43	368531	1156.10	ppb	97
49) Benzene	11.67	78	1619098	52.12	ppb	100
50) 1,2-Dichloroethane	11.65	62	569312	55.35	ppb	# 94
52) N-Heptane	12.00	43	528476	72.05	ppb	↑ NT 98
53) Trichloroethene	12.74	95	501107	59.64	ppb	98
54) Methylcyclohexane	13.15	55	572544	55.74	ppb	99
55) 1,2-Dichloropropane	13.17	63	565784	52.96	ppb	97
56) Methyl Methacrylate	13.21	100	88286	45.71	ppb	100
57) 1,4-Dioxane	13.34	88	64622	1124.38	ppb	99
58) Dibromomethane	13.39	93	305903	51.78	ppb	95
59) Bromodichloromethane	13.60	83	622781	53.87	ppb	97
60) 2-Nitropropane	13.99	43	230101	111.17	ppb	97
62) cis-1,3-Dichloropropene	14.41	75	809779	52.57	ppb	98
64) 4-Methyl-2-Pentanone	14.62	43	568681	53.47	ppb	100
65) Toluene	15.08	91	1693588	51.47	ppb	99
66) trans-1,3-Dichloropropene	15.41	75	686000	48.56	ppb	98
67) Ethyl Methacrylate	15.46	69	616507	49.89	ppb	97
68) 1,1,2-Trichloroethane	15.79	83	350574	49.38	ppb	96
71) Tetrachloroethene	16.15	166	416956	53.61	ppb	97
72) 2-Hexanone	16.17	43	398916	52.78	ppb	100
73) 1,3-Dichloropropane	16.12	76	755089	51.32	ppb	97
74) Butyl Acetate	16.35	43	877189	45.91	ppb	99
75) Dibromochloromethane	16.60	129	497965	51.13	ppb	98
76) 1,2-Dibromoethane	16.89	107	448122	50.62	ppb	100
77) Chlorobenzene	17.83	112	1182671	51.56	ppb	98
78) 1,1,1,2-Tetrachloroethane	17.95	131	435590	50.30	ppb	98
79) Ethylbenzene	17.99	91	1955222	51.75	ppb	100
80) (m+p)Xylene	18.20	106	1390410	101.03	ppb	98
81) o-Xylene	19.03	106	734647	52.93	ppb	98
82) Styrene	19.04	104	927847	40.75	ppb	91
83) Bromoform	19.50	173	297841	50.42	ppb	100
84) Isopropylbenzene	19.75	105	1802532	55.55	ppb	97
85) Cyclohexanone	20.01	55	336004	239.36	ppb	98
87) 1,1,2,2-Tetrachloroethane	20.31	83	558687	48.29	ppb	100
88) Trans-1,4-Dichloro-2-buten	20.42	53	129350	51.50	ppb	91
89) 1,2,3-Trichloropropane	20.46	110	135980	46.90	ppb	90
90) n-Propylbenzene	20.60	91	2181195	48.93	ppb	99
91) Bromobenzene	20.49	156	513891	48.47	ppb	99
92) 1,3,5-Trimethylbenzene	20.92	105	1280051	46.57	ppb	98
93) 2-Chlorotoluene	20.86	91	1400519	49.56	ppb	99
94) 4-Chlorotoluene	21.06	91	1501225	51.11	ppb	98
95) tert-Butylbenzene	21.65	119	1170328	52.50	ppb	95
96) 1,2,4-Trimethylbenzene	21.74	105	1255769	45.30	ppb	100
97) sec-Butylbenzene	22.11	105	1741162	54.68	ppb	98
98) p-Isopropyltoluene	22.37	119	1357394	51.73	ppb	99
99) 1,3-Dclbenz	22.43	146	920534	51.23	ppb	98

(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\MSVOA7\DATA\040809\M7594.D Vial: 15  
 Acq On : 8 Apr 2009 8:45 pm Operator: B.Bush  
 Sample : R0901679-001MS|1.0 Inst : MS #7  
 Misc : CRA, 8260, 4769, T4 Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Apr 10 15:28 2009 Quant Results File: WAT0305.RES

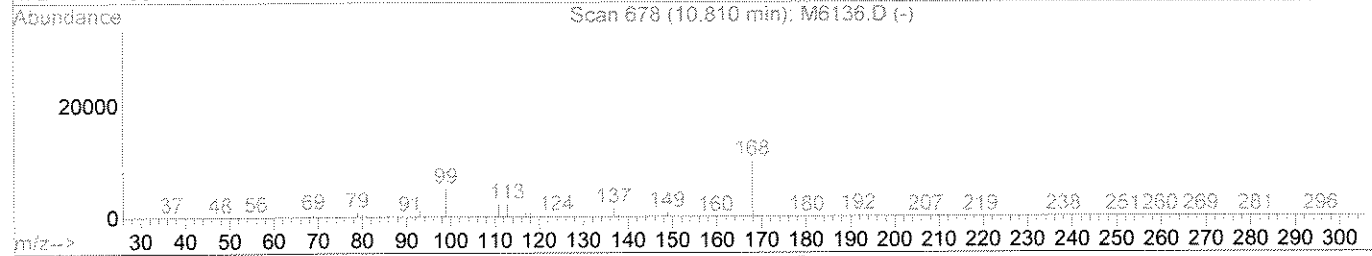
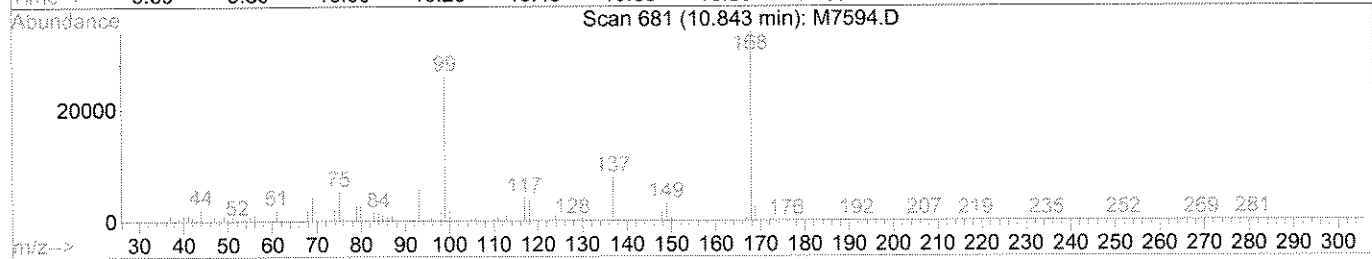
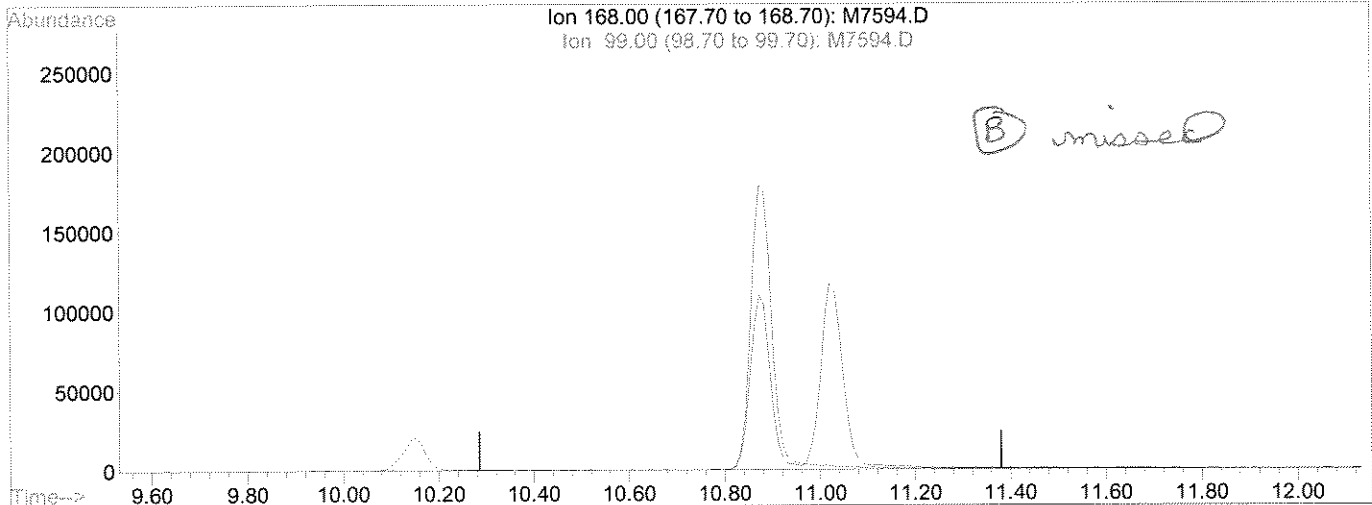
Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
100) 1,4-Dclbenz	22.61	146	887319	47.65	ppb	98
101) n-Butylbenzene	23.28	91	1360696	53.47	ppb	98
102) 1,2-Dclbenz	23.48	146	868515	49.91	ppb	100
103) 1,2-Dibromo-3-chloropropan	25.33	157	90964	47.50	ppb	89
105) 1,2,4-Tcbenzene	27.41	180	419160	49.98	ppb	94
106) Hexachlorobt	27.76	225	170863	65.73	ppb <sup>↑NT</sup>	96
107) Naphthalen	28.05	128	1120825	50.41	ppb	99
108) 1,2,3-Tclbenzene	28.65	180	364343	48.32	ppb	100
22) METHYLENE CHLORIDE	7.96		378656	52.37	ppb	BB

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA7\DATA\040809\M7594.D Vial: 15  
 Acq On : 8 Apr 2009 8:45 pm Operator: B.Bush  
 Sample : R0901679-001MS|1.0 Inst : MS #7  
 Misc : CRA, 8260, 4769, T4 Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Apr 10 15:27 2009 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Multiple Level Calibration



(1) Pentafluorobenzene (I)

10.84min 0.00ppb

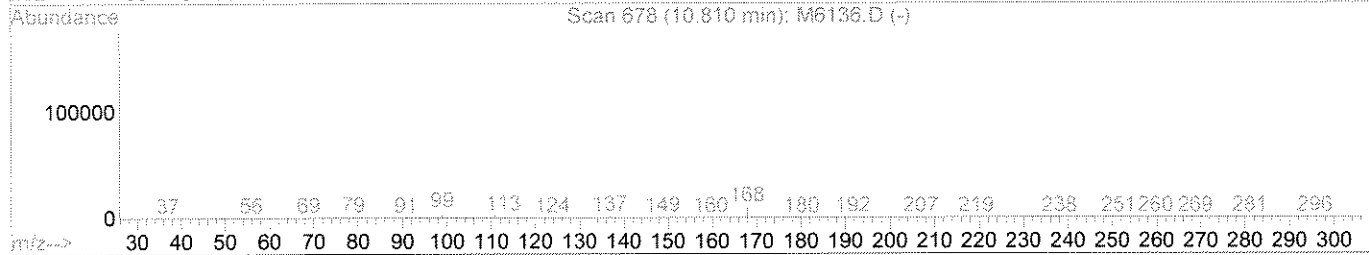
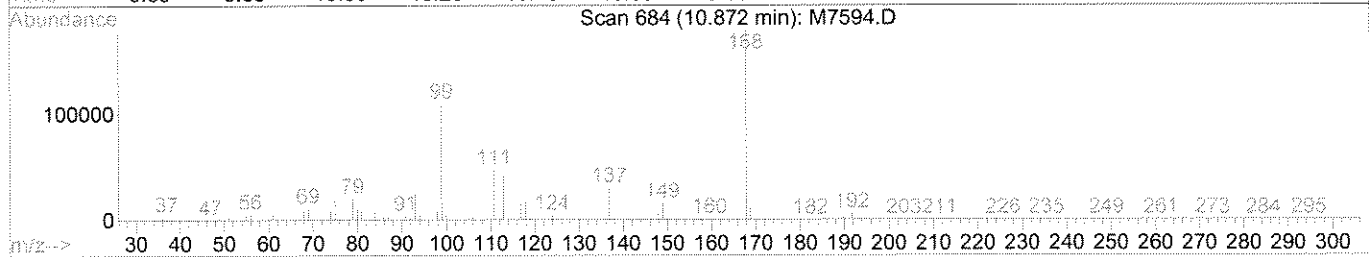
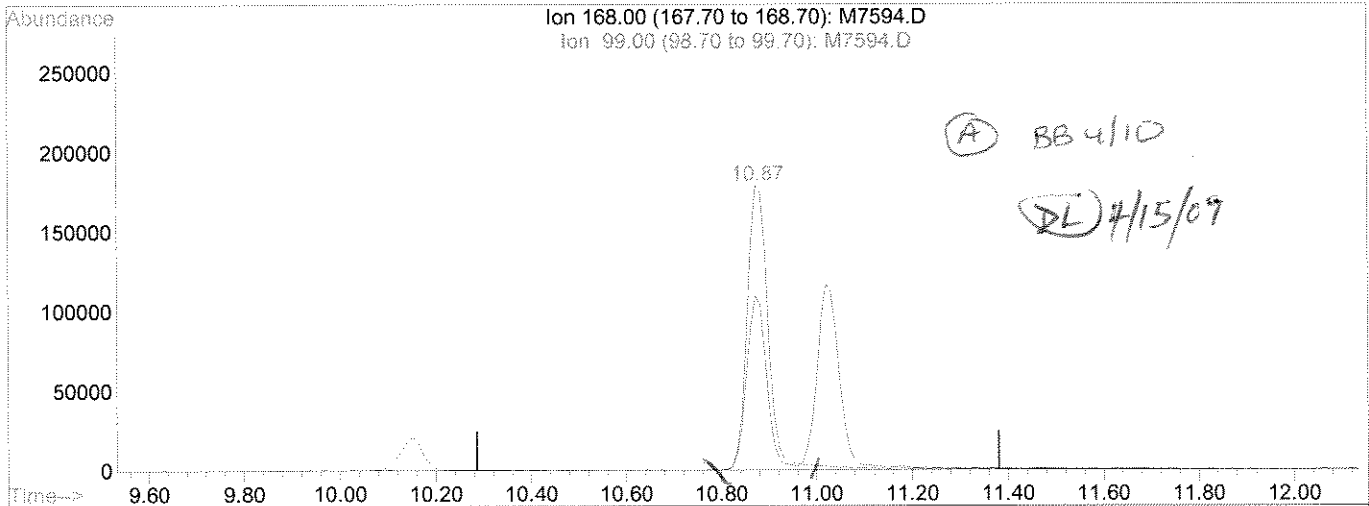
response 0

Ion	Exp%	Act%
168.00	100	0.00
99.00	54.60	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA7\DATA\040809\M7594.D Vial: 15  
 Acq On : 8 Apr 2009 8:45 pm Operator: B.Bush  
 Sample : R0901679-001MS|1.0 Inst : MS #7  
 Misc : CRA, 8260, 4769, T4 Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Apr 10 15:28 2009 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Multiple Level Calibration



TIC: M7594.D

(1) Pentafluorobenzene (I)

10.87min 50.00ppb m

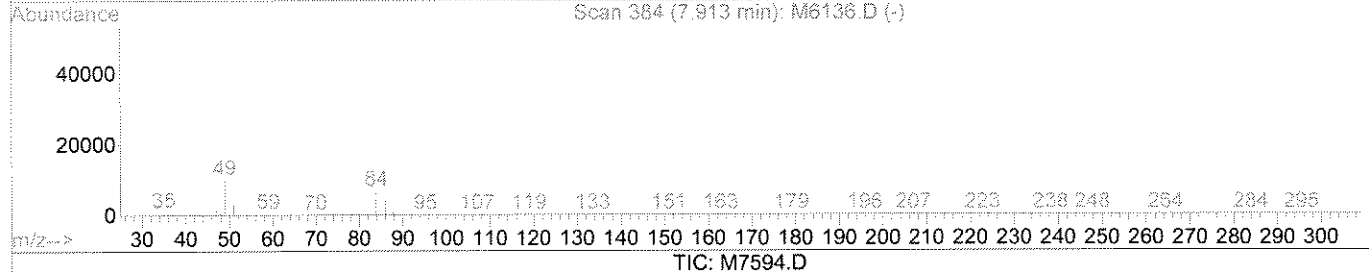
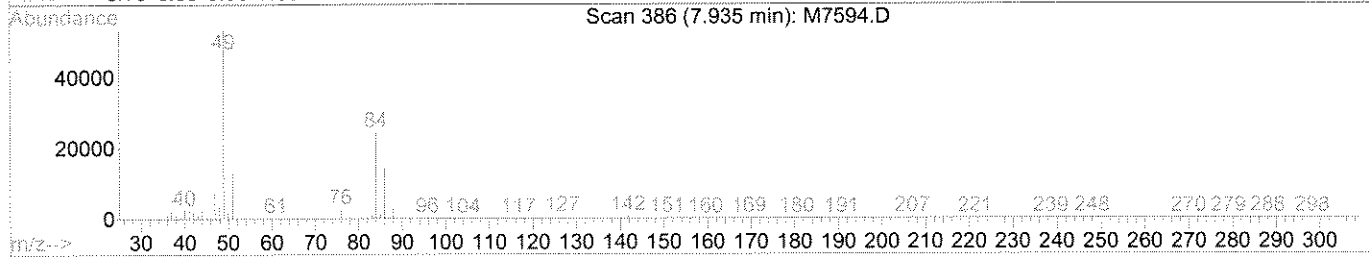
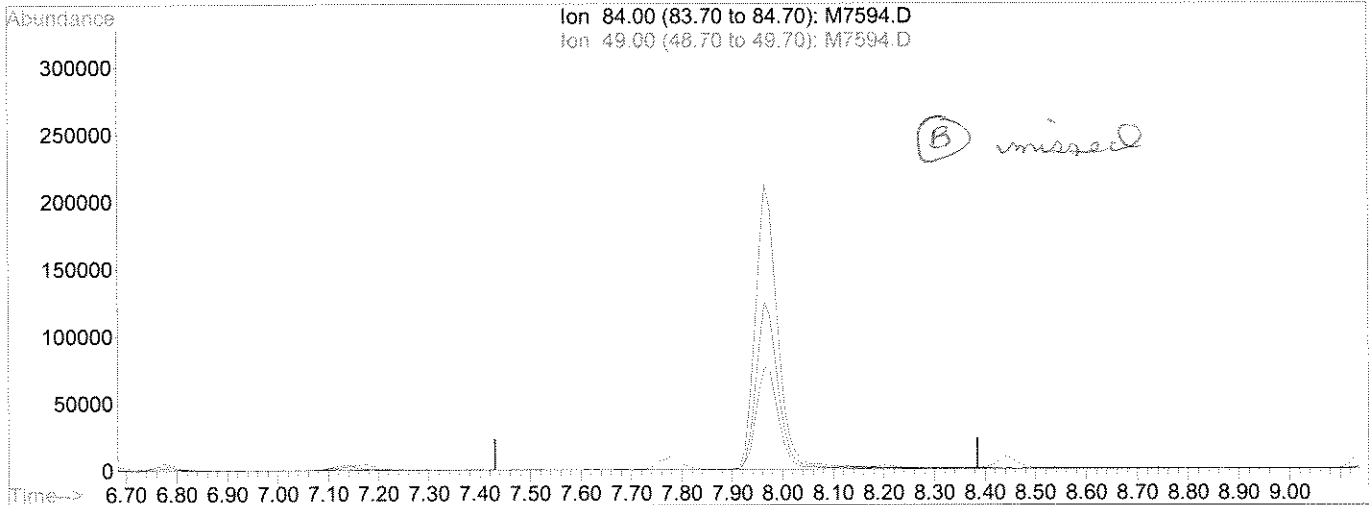
response 549732

Ion	Exp%	Act%
168.00	100	100
99.00	54.60	61.40
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA7\DATA\040809\M7594.D Vial: 15  
Acq On : 8 Apr 2009 8:45 pm Operator: B.Bush  
Sample : R0901679-001MS|1.0 Inst : MS #7  
Misc : CRA, 8260, 4769, T4 Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Apr 10 15:28 2009 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
Title : 8260B.WATERS  
Last Update : Fri Mar 13 15:29:46 2009  
Response via : Multiple Level Calibration



(22) Methylene Chloride

7.93min 0.00ppb

response 0

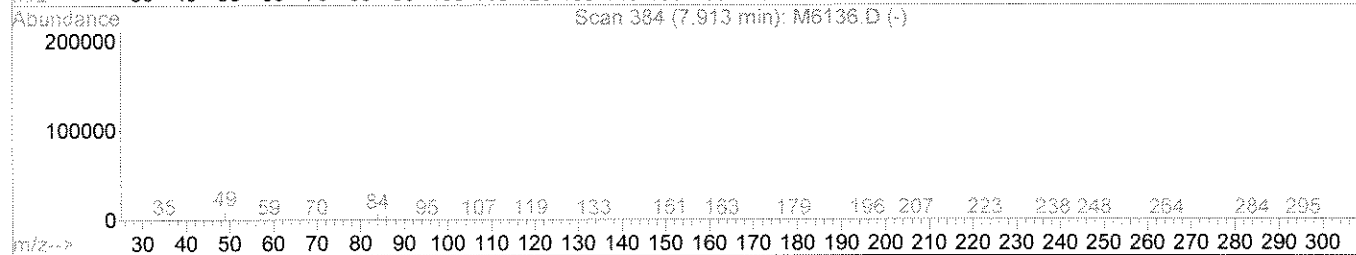
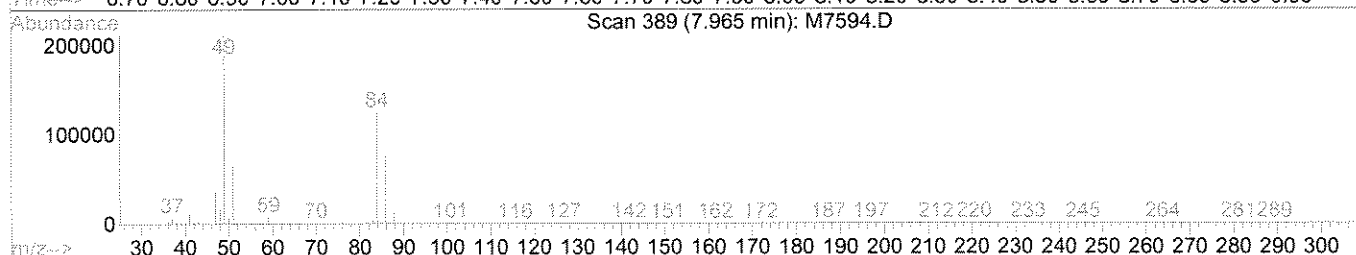
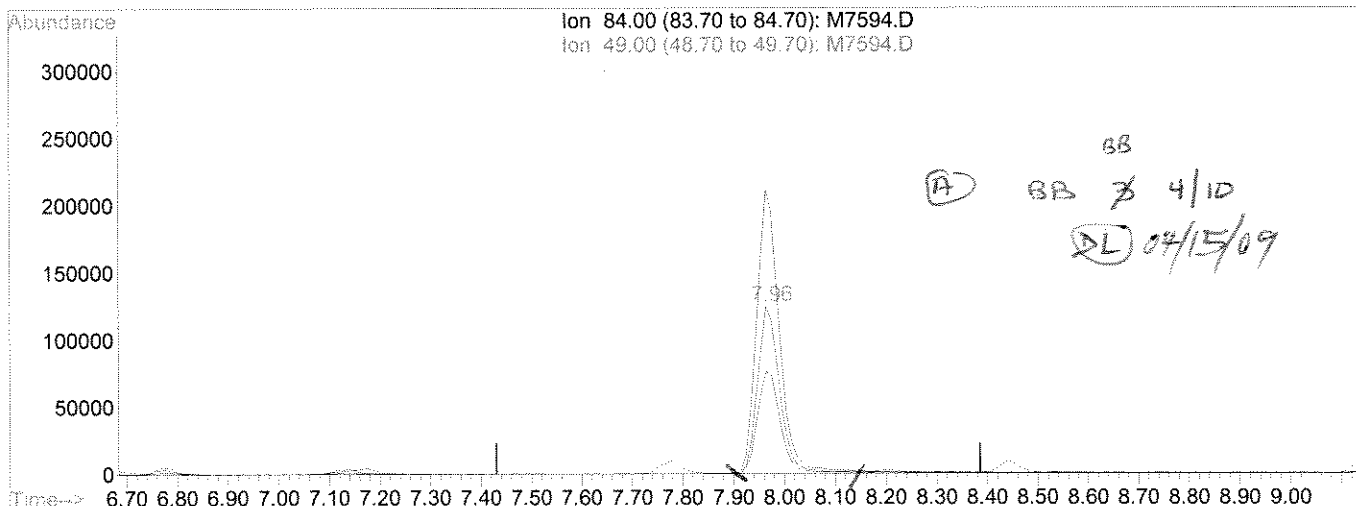
Ion	Exp%	Act%
84.00	100	0.00
49.00	159.50	0.00#
86.00	64.60	0.00#
0.00	0.00	0.00



Quantitation Report (Qedit)

Data File : J:\ACQUDATA\MSVOA7\DATA\040809\M7594.D Vial: 15  
 Acq On : 8 Apr 2009 8:45 pm Operator: B.Bush  
 Sample : R0901679-001MS|1.0 Inst : MS #7  
 Misc : CRA, 8260, 4769, T4 Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Apr 10 15:32 2009 Quant Results File: temp.res

Method : J:\ACQUDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Multiple Level Calibration



TIC: M7594.D

(22) Methylene Chloride

7.96min 52.37ppb m

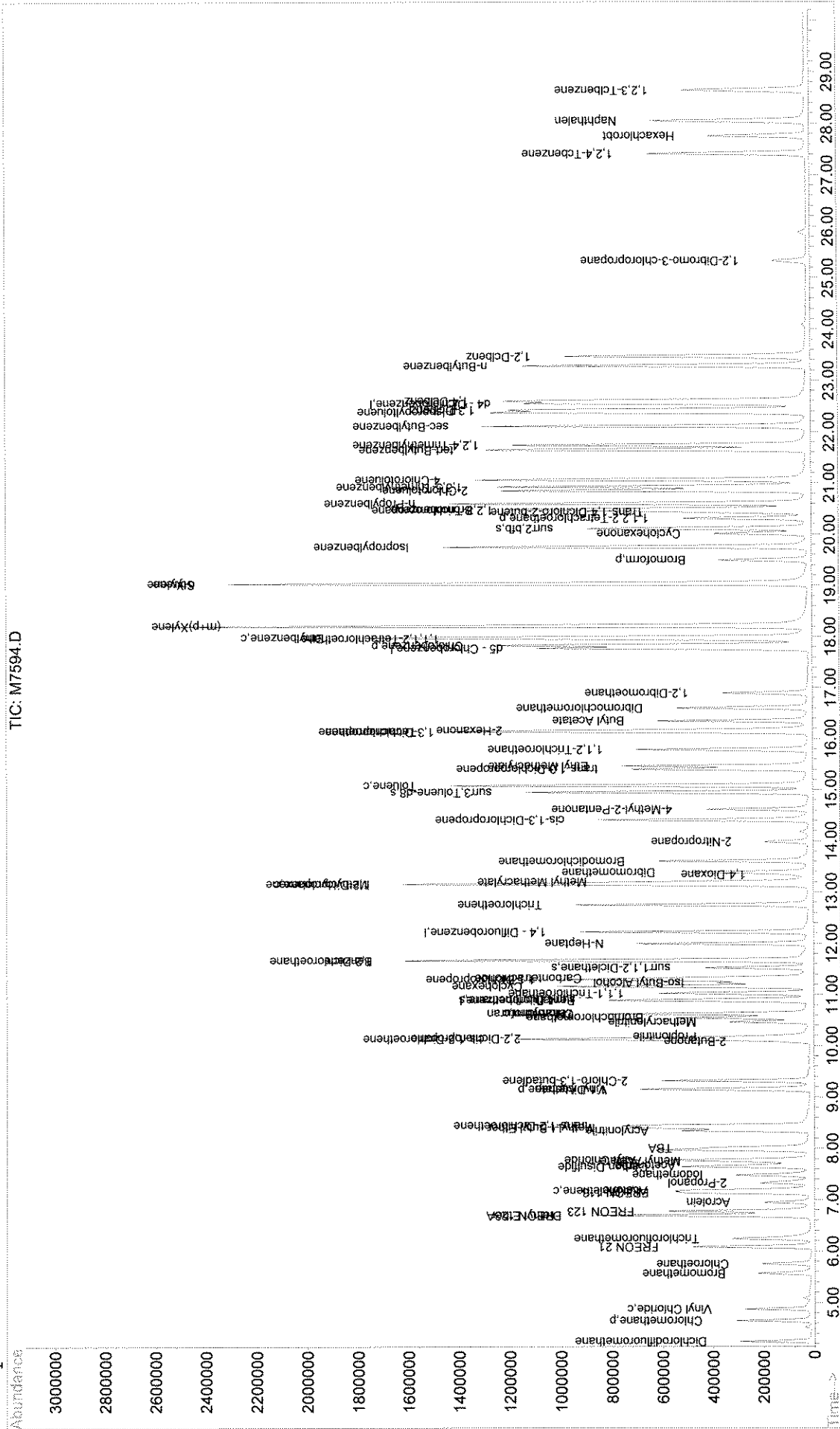
response 378656

Ion	Exp%	Act%
84.00	100	100
49.00	159.50	169.91
86.00	64.60	61.29
0.00	0.00	0.00

Quantitation Report

Data File : J:\ACQDATA\MSV0A7\DATA\040809\M7594.D Vial: 15  
 Acq On : 8 Apr 2009 8:45 pm Operator: B.Bush  
 Sample : R0901679-001MS|1.0 Inst : MS #7  
 Misc : CRA, 8260, 4769, T4 Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Apr 10 15:28 2009 Quant Results File: WAT0305.RES

Method : J:\ACQDATA\MSV0A7\METHODS\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Initial Calibration



**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water  
**Sample Name:** WG-5513-032609-001  
**Lab Code:** RQ0902333-04  
**Run Type:** Duplicate Matrix Spike

**Service Request:** R0901679  
**Date Collected:** 3/26/09 0900  
**Date Received:** 3/27/09  
**Units:** µg/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1-Trichloroethane (TCA)	55.7		5.0	0.45	1	NA	4/8/09 21:24		149068	
1,1,2,2-Tetrachloroethane	44.7		5.0	0.44	1	NA	4/8/09 21:24		149068	
1,1,2-Trichloroethane	44.2		5.0	0.45	1	NA	4/8/09 21:24		149068	
1,1-Dichloroethane (1,1-DCA)	52.7		5.0	0.64	1	NA	4/8/09 21:24		149068	
1,1-Dichloroethene (1,1-DCE)	50.1		5.0	0.59	1	NA	4/8/09 21:24		149068	
1,2-Dichloroethane	54.6		5.0	0.42	1	NA	4/8/09 21:24		149068	
1,2-Dichloroethene, Total	120		10	0.93	1	NA	4/8/09 21:24		149068	
1,2-Dichloropropane	51.3		5.0	0.36	1	NA	4/8/09 21:24		149068	
2-Butanone (MEK)	52.7		10	1.0	1	NA	4/8/09 21:24		149068	
2-Hexanone	48.1		10	0.78	1	NA	4/8/09 21:24		149068	
4-Methyl-2-pentanone	50.0		10	0.71	1	NA	4/8/09 21:24		149068	
Acetone	52.5		20	1.2	1	NA	4/8/09 21:24		149068	
Benzene	49.3		5.0	0.42	1	NA	4/8/09 21:24		149068	
Bromodichloromethane	51.8		5.0	0.84	1	NA	4/8/09 21:24		149068	
Bromoform	44.1		5.0	0.32	1	NA	4/8/09 21:24		149068	
Bromomethane	45.6		5.0	0.58	1	NA	4/8/09 21:24		149068	
Carbon Disulfide	46.0		10	0.52	1	NA	4/8/09 21:24		149068	
Carbon Tetrachloride	54.8		5.0	0.36	1	NA	4/8/09 21:24		149068	
Chlorobenzene	46.3		5.0	0.44	1	NA	4/8/09 21:24		149068	
Chloroethane	49.8		5.0	0.36	1	NA	4/8/09 21:24		149068	
Chloroform	55.2		5.0	0.22	1	NA	4/8/09 21:24		149068	
Chloromethane	54.7		5.0	0.96	1	NA	4/8/09 21:24		149068	
Dibromochloromethane	45.4		5.0	0.43	1	NA	4/8/09 21:24		149068	
Methylene Chloride	47.7		5.0	0.50	1	NA	4/8/09 21:24		149068	
Ethylbenzene	46.6		5.0	0.43	1	NA	4/8/09 21:24		149068	
Styrene	38.4		5.0	0.37	1	NA	4/8/09 21:24		149068	
Tetrachloroethene (PCE)	46.6		5.0	0.43	1	NA	4/8/09 21:24		149068	
Toluene	45.6		5.0	0.42	1	NA	4/8/09 21:24		149068	
Trichloroethene (TCE)	57.2		5.0	0.63	1	NA	4/8/09 21:24		149068	
Vinyl Chloride	59.4		5.0	0.52	1	NA	4/8/09 21:24		149068	
Xylenes, Total	136		5.0	1.5	1	NA	4/8/09 21:24		149068	
cis-1,3-Dichloropropene	49.9		5.0	0.38	1	NA	4/8/09 21:24		149068	
trans-1,3-Dichloropropene	42.8		5.0	0.25	1	NA	4/8/09 21:24		149068	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water  
**Sample Name:** WG-5513-032609-001  
**Lab Code:** RQ0902333-04  
**Run Type:** Duplicate Matrix Spike

**Service Request:** R0901679  
**Date Collected:** 3/26/09 0900  
**Date Received:** 3/27/09  
**Units:** µg/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
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Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
4-Bromofluorobenzene	106	80-123	4/8/09 21:24		
Dibromofluoromethane	110	89-115	4/8/09 21:24		
Toluene-d8	98	88-124	4/8/09 21:24		

**Comments:**

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Data File : J:\ACQUDATA\MSVOA7\DATA\040809\M7595.D Vial: 16  
 Acq On : 8 Apr 2009 9:24 pm Operator: B.Bush  
 Sample : R0901679-001MSD|1.0 *R0901679-04* Inst : MS #7  
 Misc : CRA, 8260, 4769, T4 Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Apr 8 21:54 2009 Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	10.88	168	618936	50.00	ppb	0.04
42) 1,4 - Difluorobenzene	12.22	114	1124465	50.00	ppb	0.04
63) d5 - Chlorobenzene	17.77	117	1227086	50.00	ppb	0.04
86) d4 - Dichlorobenzene	22.55	152	617714	50.00	ppb	0.04

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) surr4,Dibrflmethane	10.90	113	468855	55.04	ppb	0.04
Spiked Amount	50.000	Range 89 - 115	Recovery	=	110.08%	
48) surr1,1,2-Dicethane	11.52	65	432457	53.50	ppb	0.04
Spiked Amount	50.000	Range 80 - 120	Recovery	=	107.00%	
69) surr3,Toluene-d8	14.95	98	1402571	48.89	ppb	0.04
Spiked Amount	50.000	Range 88 - 124	Recovery	=	97.78%	
70) surr2,bfb	20.11	95	684218	53.10	ppb	0.05
Spiked Amount	50.000	Range 80 - 123	Recovery	=	106.20%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	4.24	85	389103	56.49	ppb	99
3) Chloromethane	4.64	50	497622	54.67	ppb	98
4) Vinyl Chloride	4.87	62	411184	59.39	ppb	97
5) Bromomethane	5.57	96	286591	45.55	ppb	99
6) Chloroethane	5.75	64	287805	49.82	ppb	99
7) FREON 21	6.08	67	894265	56.28	ppb	100
8) Trichlorofluoromethane	6.25	101	513723	57.28	ppb	98
9) Diethyl Ether	6.70	59	289565	47.03	ppb	99
10) FREON 123A	6.68	67	534647	50.80	ppb	96
11) FREON 123	6.77	83	529216	50.31	ppb	98
12) Acrolein	6.94	56	284262	345.96	ppb	100
13) FREON 113	7.13	101	351632	56.78	ppb	98
14) 1,1-Dicethene	7.17	96	300324	50.06	ppb	96
15) Acetone	7.19	43	123217	52.54	ppb	91
16) 2-Propanol	7.32	45	474805	1241.26	ppb	99
17) Iodomethane	7.48	142	607571	45.09	ppb	96
18) Carbon Disulfide	7.64	76	1145291	45.99	ppb	99
19) Acetonitrile	7.67	41	240817	289.68	ppb	95
20) Allyl Chloride	7.78	41	620480	42.13	ppb	98
21) Methyl Acetate	7.74	43	397906	51.58	ppb	99
22) Methylene Chloride	7.96	84	388080	47.67	ppb	89
23) TBA	8.01	59	642557	1225.39	ppb	99
24) Acrylonitrile	8.35	53	697401	275.06	ppb	95
25) Methyl-t-Butyl Ether	8.40	73	961690	50.84	ppb	99
26) trans-1,2-Dichloroethene	8.45	96	369891	48.27	ppb	96
27) 1,1-Dicethane	9.16	63	856383	52.69	ppb	98
28) Vinyl Acetate	9.15	86	34630	41.94	ppb	96
30) 2-Chloro-1,3-butadiene	9.31	53	634959	59.29	ppb	98
33) 2,2-Dichloropropane	10.15	77	487790	47.51	ppb	99
34) 2-Butanone	10.07	43	233457	52.70	ppb	98
35) cis-1,2-Dichloroethene	10.12	96	609037	71.77	ppb	99
36) Propionitrile	10.19	54	242080	260.18	ppb	94
37) Methacrylonitrile	10.47	67	152212	52.59	ppb	97
38) Bromochloromethane	10.54	128	209737	46.71	ppb	98
39) Chloroform	10.61	83	790927	55.19	ppb	98

*BB 4110*

*✓OK*

Data File : J:\ACQUDATA\MSVOA7\DATA\040809\M7595.D  
 Acq On : 8 Apr 2009 9:24 pm  
 Sample : R0901679-001MSD|1.0  
 Misc : CRA, 8260, 4769, T4  
 MS Integration Params: RTEINT.P  
 Quant Time: Apr 8 21:54 2009

Vial: 16  
 Operator: B.Bush  
 Inst : MS #7  
 Multiplr: 1.00

Quant Results File: WAT0305.RES

Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
40) Tetrahydrofuran	10.62	42	124435	50.79	ppb	93
41) 1,1,1-Trichloroethane	11.02	97	569962	55.72	ppb	97
43) Cyclohexane	11.16	56	782722	54.38	ppb	99
45) Carbontetrachloride	11.32	117	489212	54.78	ppb	99
46) 1,1-Dichloropropene	11.28	75	628147	55.63	ppb	99
47) Iso-Butyl Alcohol	11.22	43	367941	1101.47	ppb	96
49) Benzene	11.67	78	1605492	49.32	ppb	99
50) 1,2-Dichloroethane	11.65	62	588275	54.57	ppb	99
52) N-Heptane	11.99	43	534839	69.54	ppb	98
53) Trichloroethene	12.75	95	503585	57.20	ppb	95
54) Methylcyclohexane	13.15	55	557843	51.83	ppb	94
55) 1,2-Diclp propane	13.17	63	574388	51.31	ppb	100
56) Methyl Methacrylate	13.21	100	91513	45.21	ppb	98
57) 1,4-Dioxane	13.34	88	67250	1116.60	ppb	97
58) Dibromomethane	13.38	93	303912	49.09	ppb	96
59) Bromodichloromethane	13.60	83	627700	51.81	ppb	98
60) 2-Nitropropane	13.98	43	237304	109.41	ppb	99
62) cis-1,3-Dichloropropene	14.41	75	805178	49.88	ppb	97
64) 4-Methyl-2-Pentanone	14.62	43	602026	49.96	ppb	94
65) Toluene	15.09	91	1698678	45.56	ppb	100
66) trans-1,3-Dichloropropene	15.40	75	684819	42.79	ppb	99
67) Ethyl Methacrylate	15.46	69	627991	44.86	ppb	96
68) 1,1,2-Trichloroethane	15.79	83	355437	44.19	ppb	99
71) Tetrachloroethene	16.15	166	410200	46.56	ppb	96
72) 2-Hexanone	16.17	43	411820	48.09	ppb	100
73) 1,3-Dichloropropene	16.13	76	746068	44.76	ppb	100
74) Butyl Acetate	16.35	43	874545	40.40	ppb	99
75) Dibromochloromethane	16.61	129	501480	45.44	ppb	94
76) 1,2-Dibromoethane	16.89	107	449230	44.79	ppb	95
77) Chlorobenzene	17.83	112	1203589	46.31	ppb	99
78) 1,1,1,2-Tetrachloroethane	17.95	131	448223	45.69	ppb	97
79) Ethylbenzene	17.99	91	1993093	46.56	ppb	99
80) (m+p)Xylene	18.20	106	1408166	90.31	ppb	98
81) o-Xylene	19.03	106	725025	46.11	ppb	96
82) Styrene	19.04	104	990670	38.40	ppb	96
83) Bromoform	19.49	173	295158	44.10	ppb	97
84) Isopropylbenzene	19.75	105	1753129	47.69	ppb	98
85) Cyclohexanone	20.02	55	355145	223.31	ppb	99
87) 1,1,2,2-Tetrachloroethane	20.31	83	579252	44.67	ppb	98
88) Trans-1,4-Dichloro-2-buten	20.42	53	122099	43.38	ppb	84
89) 1,2,3-Trichloropropene	20.46	110	134262	41.32	ppb	97
90) n-Propylbenzene	20.60	91	2243792	44.91	ppb	99
91) Bromobenzene	20.50	156	522119	43.94	ppb	91
92) 1,3,5-Trimethylbenzene	20.93	105	1275015	41.39	ppb	100
93) 2-Chlorotoluene	20.85	91	1401587	44.26	ppb	99
94) 4-Chlorotoluene	21.06	91	1464843	44.50	ppb	100
95) tert-Butylbenzene	21.65	119	1117229	44.72	ppb	99
96) 1,2,4-Trimethylbenzene	21.74	105	1288460	41.47	ppb	100
97) sec-Butylbenzene	22.10	105	1806778	50.63	ppb	98
98) p-Isopropyltoluene	22.37	119	1399631	47.59	ppb	98

(#) = qualifier out of range (m) = manual integration  
 M7595.D WAT0305.M Wed Apr 08 21:55:00 2009

Data File : J:\ACQUDATA\MSVOA7\DATA\040809\M7595.D Vial: 16  
 Acq On : 8 Apr 2009 9:24 pm Operator: B.Bush  
 Sample : R0901679-001MSD|1.0 Inst : MS #7  
 Misc : CRA, 8260, 4769, T4 Multiplr: 1.00  
 MS Integration Params: RTEINT.P  
 Quant Time: Apr 8 21:54 2009 Quant Results File: WAT0305.RES

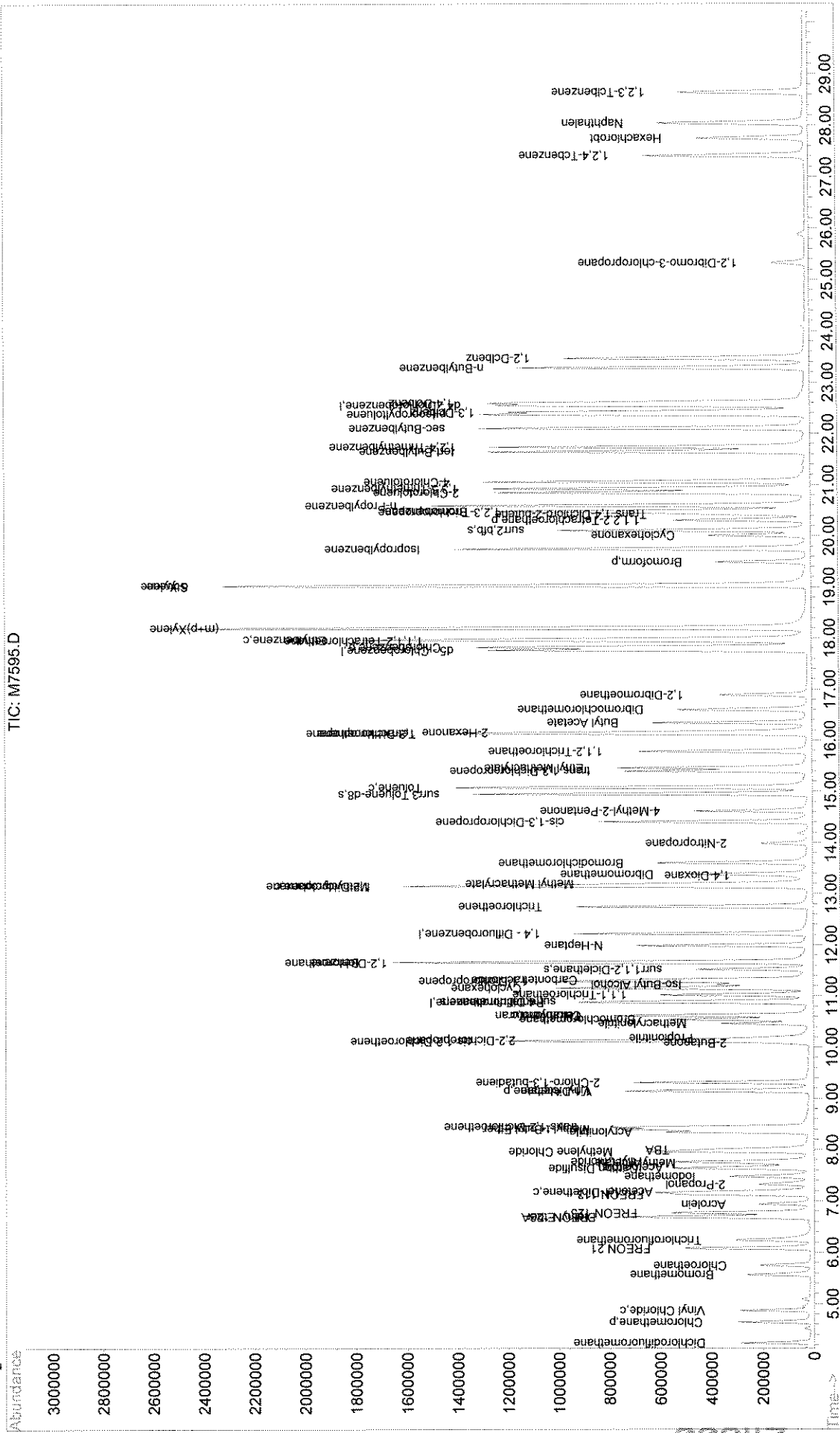
Quant Method : J:\ACQUDATA\M...\WAT0305.M (RTE Integrator)  
 Title : 8260B.WATERS  
 Last Update : Fri Mar 13 15:29:46 2009  
 Response via : Initial Calibration  
 DataAcq Meth : WAT0305

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
99) 1,3-Dclbenz	22.43	146	918733	45.62	ppb	99
100) 1,4-Dclbenz	22.61	146	947902	45.42	ppb	99
101) n-Butylbenzene	23.29	91	1350116	47.34	ppb	100
102) 1,2-Dclbenz	23.47	146	851887	43.68	ppb	98
103) 1,2-Dibromo-3-chloropropan	25.34	157	90019	41.94	ppb	90
105) 1,2,4-Tcbenzene	27.42	180	432266	45.99	ppb	95
106) Hexachlorobt	27.75	225	186811	64.08	ppb	97
107) Naphthalen	28.05	128	1092566	43.84	ppb	98
108) 1,2,3-Tclbenzene	28.65	180	358484	42.42	ppb	98

Quantitation Report

Data File : J:\ACQDATA\MSVOA7\DATA\040809\M7595.D Vial: 16  
Acq On : 8 Apr 2009 9:24 pm Operator: B. Bush  
Sample : R0901679-001MSD|1.0 Inst : MS #7  
Misc : CRA, 8260, 4769, T4 Multiplr: 1.00  
MS Integration Params: RTEINT.P  
Quant Time: Apr 8 21:54 2009 Quant Results File: WAT0305.RES

Method : J:\ACQDATA\MSVOA7\METHODS\WAT0305.M (RTE Integrator)  
Title : 8260B.WATERS  
Last Update : Fri Mar 13 15:29:46 2009  
Response via : Initial Calibration





MS#7 3/15/09

T032500/WAT0305  
~~T032500/WAT0302~~ 65  
 81005 WATERS

145289

MS#7

DIL	PCS	SAMPLE	pH	FILE	OK	COMMENTS
	1	BLK				
	2	CCV		M6743		
	18	TUNE (1ul/100 ml) (8371-500ppm SW)		M6744		
	1	CCV		M6745	YT	
	1	CCV		M6746	N	VE ↑
	1	CCV		M6748	N	VE ↑
	1	CCV (MATT PREP)		M6750	N	VE ↑
	18	TUNE (1ul/100 ml) (8371-500ppm SW)				RDW CLONE
	19	↓		M6751	YT	RA
	1	IBLK		M6752	YT	RA 3:45
	2	0.5 ppb - 8260 H <sub>2</sub> O ICAL - 10 ML PUREE		M6753	Y	
	3	1.0		M6754	Y	
	4	2.0		M6755	Y	
	5	5.0		M6756	Y	
	6	20		M6757	Y	
	7	50		M6758	Y	
	8	100		M6759	Y	
	9	200		M6760	Y	
	10	BLK		M6761	Y	
	11	BLK		M6762	-	
	12	ICV/LCS (50 ppb)		M6763	-	
	13	MEDBLK		M6764	YR	
	14	MOTBLK		M6765	YB	
	15	RD0875-001: 500ul (IRM, 8320, 4400, T2)		M6766	Y	
	16	RD0875-001: 200ul		M6767	Y	
	17	20 RD0875-001: 50ul		M6768	Y	
	20	20 RD0875-001: 50ul		M6769	Y	
	21	20 RD0875-001: 50ul		M6770	N	1 <sup>st</sup> SW ↓
	22	20 RD0875-001: 50ul		M6771	Y	
	23	BLK		M6772	N	OVER 12 hrs
				M6773	-	

16ul (19/100ul)  
 50 ml  
 25 ul (19/100 ml)  
 50 ml  
 1ml (%and)  
 50 HLS  
 ↓

2<sup>nd</sup> T6 (8308) } SW  
 2<sup>nd</sup> ASL (8047) }  
 2<sup>nd</sup> FR+ (8201) } - 12 SW } 50 ml

1ml (M6710M)  
 SDMS  
 ↓  
 1ml (M6710M)  
 SDMS  
 5ml  
 50ml  
 1ml  
 100ml  
 2.5ml  
 SDMS

PCS 15/SW (500ppm) (8370) → 1ul added to new but tune

PCS	CS	1.0	2.0	5.0	20	50	100	200
8510	1 <sup>st</sup> T6 500	10ul / 1ml H <sub>2</sub> O 5ul / 50ml SW	10ul	20ul	50ul	2ul	5ul	10ul
8419	1 <sup>st</sup> ASL 500	↓	↓	↓	↓	↓	↓	↓
8470	1 <sup>st</sup> FR+ 500	↓	↓	↓	↓	↓	↓	↓
8371	SW 100	↓	1ul / 50ul	2ul	5ul	↓	7.5ul	10ul

5125

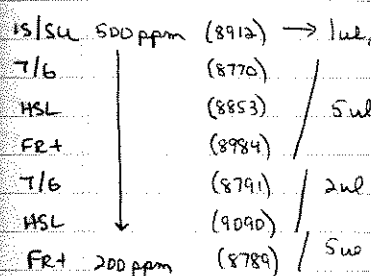
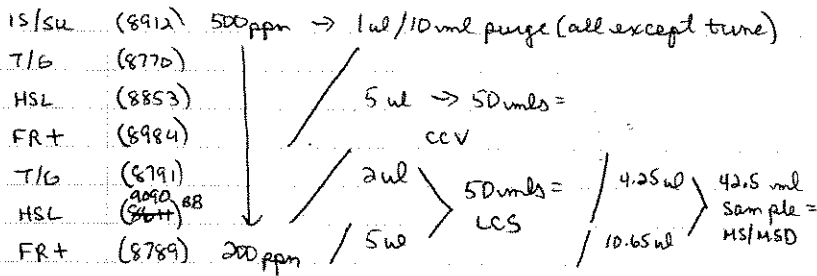
MS #7 4/8/09 T030509/WAT0305  
 AM RUN 8260B H<sub>2</sub>O  
 BB

149068

DIL	PDS	SAMPLE	pH	FILE	OK	COMMENTS
		1 BLK	-	M7576	-	
		18 TUNE → 1ul (500 ppm SU-8749) → 100 uL	-	M7577	YT	9:43
		1 CCV	-	M7578	YC	
		2 LCS RQ0902333-D2	-	M7579	YQ	
		1 BLK	-	M7580	-	
		2 METBLK:1.0 RQ0902333-D1	-	M7581	YB	
		3 RQ091707-029:1.0 (RA, 8260, 4751, T2) (RDI)	<2	M7582	Y	SU↓
20ml		4 -027:2.5 (RA)	<2	M7583	Y	SU↓ CONFIRM
50ml		5 -031:1.0 (RDI)	<2	M7584	Y	SU↓
		6 -043:1.0 (RDI)	<2	M7585	Y	SU↓
		7 -052:1.0	<2	M7586	Y	
		8 -053:1.0 (RDI)	<2	M7587	Y	SU↓
20ml		9 -047:2.5	<2	M7588	Y	
50ml		10 -050:2.5	<2	M7589	Y	
10ml		11 -051:5.0	<2	M7590	Y	
50ml		RQ091707-029:1.0 (RA, 8260, 4751, T2)	<2	M7591	Y	SU↓ CONFIRM
		12 RQ091679-002:1.0 (CRA, 8260, 4769, T4)	<2	M7591	Y	
		13 RQ091679-002:1.0 (CRA, 8260, 4769, T4)	<2	M7592	Y	
		14 -001:1.0	<2	M7593	Y	
		15 -001MS:1.0 RQ0902333-D23	<2	M7594	Y	
		16 -001MSD:1.0 -04	<2	M7595	Y	
		17 BLK	-	M7596	-	

MS #7 4/8/09 T0305  
 PM RUN 8260

DIL	PDS	SAMPLE	pH	FILE	OK	COMMENTS
		18 TUNE → 1ul (500 ppm SU)	-		-	
		19 ↓	-		-	
		20 CCV	-		-	
		21 LCS RQ0902331	-		-	
		22 BLK	-		-	
		23 METBLK:1.0 RQ0902334	-		-	
		24 RQ091679-009:1.0 (CRA, 8260)	-		-	
		25 RQ091703-004:1.0 (CRA, 8260)	-		-	
		26 RQ091679-004:1.0 (CRA, 8260)	-		-	
		27 -005:1.0	-		-	
		28 -008:1.0	-		-	
		29 -006:1.0	-		-	
20ml		30 -007:2.5	-		-	
50ml		31 RQ091703-002:1.0 (CRA, 8260)	-		-	
2.5ml		32 -003:1.0 BB	-		-	
50ml		33 RQ091679-001:1.0 BB	-		-	
		34 RQ091703-001MS:1.0 BB 5.0	-		-	
		35 -001MSX:1.0 BB 5.0	-		-	
		36 BB 5.0	-		-	
		37 BLK	-		-	



149068

MS#7 4/8/09  
PM RDN

T030509/WAT0305  
S0608 H2O

149259

PH	FILE	OK	COMMENTS	DL	POS	SAMPLE	PH	FILE	OK	COMMENTS
-	M7576	-			18	TUNE → 1ul (500 ppm SU - 8749) → 100 u/ml	-	M7597	N	
-	M7577	YT	9:43		19	↓	-	M7598	YT	
-	M7578	YC			20	CCV	-	M7599	YL	
-	M7579	YR			21	LCS R00903369-04	-	M7600	YR	
-	M7580	-			22	BLK	-	M7601	N	
-	M7581	YB			23	MSTBLK: 1.0 R00903369-03	-	M7602	YB	
←2	M7582	Y	SU ↓		24	R0901679-009: 1.0 (CRA, 8260, 4249, T4)	←2	M7603	Y	
←2	M7583	Y	SU ↓ CONFIRMS		25	R0901703-004: 1.0 (CRA, 8260, 4249, T2)	←2	M7604	Y	
←2	M7584	Y	SU ↓		26	R0901679-004: 1.0 (CRA, 8260, 4249, T4)	←2	M7605	Y	RPT → BB
←2	M7585	Y	SU ↓		27	-005: 1.0	←2	M7606	Y	
←2	M7586	Y			28	-008: 1.0	←2	M7607	Y	
←2	M7587	Y	SU ↓		29	-006: 1.0	←2	M7608	N	RPT 111
←2	M7588	Y			30	-007: 2.5	←2	M7609	Y	RPT 111 BB
←2	M7589	Y			31	R0901703-002: 1.0 (CRA, 8260, 4249, T2)	←2	M7610	Y	RPT 111 BB
←2	M7590	Y			32	-003: 1.0 BB	←2	M7611	Y	RPT 111 BB
←2	M7591	Y	SU ↓ CONFIRMS		33	R0901679 -001: 1.0 BB	←2	M7612	Y	RPT 111 BB
←2	M7592	Y			34	R0901703-001MS: 1.0 BB	←2	M7613	Y	RPT 111 BB
←2	M7593	Y			35	-001MS: 1.0 BB	←2	M7614	N	
←2	M7594	Y			36	BB -001MSD: 1.0	-	M7615	N	
←2	M7595	Y			37	BLK	-		N	
-	M7596	-							N	

except tune)

4.25 ul } 42.5 ml  
0.65 ul } Sample =  
MS/MSD

15/SU 500 ppm (8912) → 1ul/10 ml purge (all except tune)  
T/B (8770)  
HSL (8853) / 5ul → 50 u/ml = CCV  
FR4 (8984)  
T/B (8791) / 2ul } 50 u/ml =  
HSL (4090) / LCS / 4.25 ul } 42.5 ml  
FR4 200 ppm (8789) / 5ul } 10.65 ul } Sample =  
MS/MSD

MS#7 4/9/09

T030SDA/WATO30S  
826DB H<sub>2</sub>O

149502

MS#7 4/10/09

T030SD  
826D

DIL	PDS	SAMPLE	PH	FILE	DK	COMMENTS	DIL	PDS	SAMPLE
	18	TUNE → 1ul (500 ppm Su - 8981) → 100 u/ml	-	M7617	YT	11:36		1	BLK
	1	CCV	-	M7618	YC			2	BLK
	2	LCS R0902441-02	-	M7619	YQ			18	TUNE → 1ul (500 ppm)
	3	BLK	-	M7620	N			18	↓
	4	METBLK: 1.0 R0902441-01	-	M7621	YB			1	CCV
	1	R0901679-006: 1.0 (CRA, 8260, 4769, T4)	<2	M7622	Y			2	LCS
10 uL SDML	2	-007: <sup>83</sup> S.D	<2	M7623	Y	DL		3	METBLK: 5D
	3	R0901707-031: 1.0 (RA, 8260, 4751, T2)	<2	M7624	Y	CONFIRMS		4	METBLK: 1.0 (660)
	4	-043: 1.0 (RA)	<2	M7625	Y	CONFIRMS	25 uL SDML	1	R0901707-033: 2.0
	5	-053: 1.0 (RA)	<2	M7626	Y	CONFIRMS	25 uL SDML	2	R0901703-001: 2.0 (C)
10 uL SDML	6	-028: S.D (RA)	<2	M7627	Y	CONFIRMS	5 uL / 50 mL	3	R0901717-001: 100,000
1 uL SDML	7	-025: S.D (RA)	<2	M7628	Y	CONFIRMS	↓	4	R0901851-002: 100,000
	8	R0901703-002: 5D (RA, 8260, 4249, T2)	<2	M7629	Y	DL	↓	5	BLK
	9	-003: 5D	<2	M7630	Y	DL	2.5 uL SDML	6	R0901703-001MS: 2.0
	10	-001: S.D	<2	M7631	N	Should map been 1/20	↓	7	-001MS: 2.0
10 uL SDML	11	-001MS: S.D	<2	M7632	↓		↓	8	BLK
	12	-001MSD: S.D	<2	M7633	↓		10 uL SDML	9	R0901717-001: 1000 (1)
25 uL SDML	13	BLK	-	M7634	N		↓	10	R0901851-002: 1000
	14	R0901602-009: 2.0 (RA, 8260, 4366, T4)	<2	M7635	Y	RA OUT OF HT	10 uL SDML	11	R0901769-001: 100,000
	15	BLK	-	M7636	-		↓	12	-002: 100,000
	16	BLK	-	M7637	-		↓	13	R0901779-001: 100,000
								14	BLK

IS/SU 500 ppm (8912) → 1 uL / 10 mL purge (all except tune)  
 T/B (8983)  
 HSL (8853) / 5 uL → 50 u/ml = CCV  
 FR+ (8984)  
 T/B (8791) / 2 uL } 50 u/ml = LCS / 5 uL } 50 u/ml sample = MS/MSD  
 HSL (9090) / 5 uL }  
 FR+ 200 ppm (8789) / 5 uL }

IS/SU 500 ppm (8912) →  
 T/B (8983)  
 HSL (8853) / S  
 FR+ (8984) / S  
 T/B (8791) / 2  
 HSL (9090)  
 FR+ 200 ppm (8789) / S

## **METALS DATA**

**METALS**  
**COVER PAGE - INORGANIC ANALYSES DATA PACKAGE**

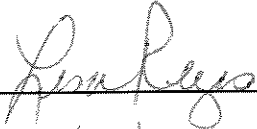
Contract: R0901679 SDG No.: 5513-20  
 Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_  
 SOW No.: SW846 CLP-M Client: Conestoga-Rovers & Associates

<u>Sample No.</u>	<u>Lab Sample ID.</u>
WG-5513-032609-001	R0901679-001
WG-5513-032609-001D	R0901679-001D
WG-5513-032609-001S	R0901679-001S
WG-5513-032609-002	R0901679-002
WG-5513-032609-003	R0901679-003
WG-5513-032609-004	R0901679-004
WG-5513-032609-005	R0901679-005
WG-5513-032609-006	R0901679-006
WG-5513-032609-007	R0901679-007
WG-5513-032609-008	R0901679-008
WG-5513-032609-001 SOL	R0901679-010
WG-5513-032609-002 SOL	R0901679-011
WG-5513-032609-003 SOL	R0901679-012
WG-5513-032609-004 SOL	R0901679-013
WG-5513-032609-005 SOL	R0901679-014
WG-5513-032609-006 SOL	R0901679-015
WG-5513-032609-007 SOL	R0901679-016
WG-5513-032609-008 SOL	R0901679-017

Were ICP interelement corrections applied? Yes/No YES  
 Were ICP background corrections applied? Yes/No YES  
 If yes-were raw data generated before application of background corrections? Yes/No NO

Comments: See Attached Case Narrative  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature:  Name: Lisa Reyes  
 Date: 4/24/09 Title: QA Project Manager

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

WG-5513-032609-001

Contract: R0901679

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: 5513-20

Matrix (soil/water): WATER Lab Sample ID: R0901679-001

Level (low/med): LOW Date Received: 03/27/09

Concentration Units (ug/L or mg/kg dry weight):  $\mu\text{G/L}$

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	319			P
7440-09-7	Potassium	5860			P
7440-66-6	Zinc	725			P

Color Before: COLORLESS      Clarity Before: CLEAR      Texture:  
 Color After: COLORLESS      Clarity After: CLEAR      Artifacts:

Comments:

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

WG-5513-032609-001

Contract: R0901679

Lab Code: Case No.: SAS No.: SDG NO.: 5513-20

Matrix (soil/water): WATER Lab Sample ID: R0901679-010

Level (low/med): LOW Date Received: 03/27/09

Concentration Units (ug/L or mg/kg dry weight):  $\mu$ G/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	234			P
7440-09-7	Potassium	5630			P
7440-66-6	Zinc	419			P

Color Before: COLORLESS      Clarity Before: CLEAR      Texture:  
Color After: COLORLESS      Clarity After: CLEAR      Artifacts:  
Comments:



METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

WG-5513-032609-002

Contract: R0901679

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: 5513-20

Matrix (soil/water): WATER Lab Sample ID: R0901679-002

Level (low/med): LOW Date Received: 03/27/09

Concentration Units (ug/L or mg/kg dry weight):  $\mu\text{G/L}$

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	699			P
7440-09-7	Potassium	7410			P
7440-66-6	Zinc	20.0	U		P

Color Before: COLORLESS      Clarity Before: CLEAR      Texture:  
Color After: COLORLESS      Clarity After: CLEAR      Artifacts:

Comments:

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

WG-5513-032609-002

Contract: R0901679

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: 5513-20

Matrix (soil/water): WATER Lab Sample ID: R0901679-011

Level (low/med): LOW Date Received: 03/27/09

Concentration Units (ug/L or mg/kg dry weight):  $\mu\text{G/L}$

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	100	U		P
7440-09-7	Potassium	6730			P
7440-66-6	Zinc	20.0	U		P

Color Before: COLORLESS      Clarity Before: CLEAR      Texture:  
 Color After: COLORLESS      Clarity After: CLEAR      Artifacts:

Comments:

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

WG-5513-032609-003

Contract: R0901679

Lab Code:

Case No.:

SAS No.:

SDG NO.: 5513-20

Matrix (soil/water): WATER

Lab Sample ID: R0901679-003

Level (low/med): LOW

Date Received: 03/27/09

Concentration Units (ug/L or mg/kg dry weight):  $\mu\text{G/L}$

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	49100			P
7440-09-7	Potassium	7380			P
7440-66-6	Zinc	8820			P

Color Before: YELLOW

Clarity Before: CLOUDY

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

WG-5513-032609-003

Contract: R0901679

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: 5513-20

Matrix (soil/water): WATER Lab Sample ID: R0901679-012

Level (low/med): LOW Date Received: 03/27/09

Concentration Units (ug/L or mg/kg dry weight):  $\mu\text{G/L}$

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	668			P
7440-09-7	Potassium	6960			P
7440-66-6	Zinc	262			P

Color Before: COLORLESS      Clarity Before: CLEAR      Texture:  
 Color After: COLORLESS      Clarity After: CLEAR      Artifacts:

Comments:

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

WG-5513-032609-004

Contract: R0901679

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: 5513-20

Matrix (soil/water): WATER Lab Sample ID: R0901679-004

Level (low/med): LOW Date Received: 03/27/09

Concentration Units (ug/L or mg/kg dry weight):  $\mu\text{G/L}$

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	54400			P
7440-09-7	Potassium	7380			P
7440-66-6	Zinc	9640			P

Color Before: YELLOW      Clarity Before: CLOUDY      Texture:  
Color After: COLORLESS      Clarity After: CLEAR      Artifacts:

Comments:

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

WG-5513-032609-004

Contract: R0901679

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: 5513-20

Matrix (soil/water): WATER \_\_\_\_\_ Lab Sample ID: R0901679-013

Level (low/med): LOW \_\_\_\_\_ Date Received: 03/27/09

Concentration Units (ug/L or mg/kg dry weight):  $\mu$ G/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	621			P
7440-09-7	Potassium	7370			P
7440-66-6	Zinc	583			P

Color Before: COLORLESS      Clarity Before: CLEAR      Texture:  
 Color After: COLORLESS      Clarity After: CLEAR      Artifacts:

Comments:

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

WG-5513-032609-005

Contract: R0901679

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: 5513-20

Matrix (soil/water): WATER Lab Sample ID: R0901679-005

Level (low/med): LOW Date Received: 03/27/09

Concentration Units (ug/L or mg/kg dry weight):  $\mu\text{G/L}$

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	7670			P
7440-09-7	Potassium	3070			P
7440-66-6	Zinc	26.8			P

Color Before: YELLOW      Clarity Before: CLOUDY      Texture:  
 Color After: COLORLESS      Clarity After: CLEAR      Artifacts:

Comments:

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

WG-5513-032609-005

Contract: R0901679

Lab Code:

Case No.:

SAS No.:

SDG NO.: 5513-20

Matrix (soil/water): WATER

Lab Sample ID: R0901679-014

Level (low/med): LOW

Date Received: 03/27/09

Concentration Units (ug/L or mg/kg dry weight):  $\mu\text{G/L}$

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	384			P
7440-09-7	Potassium	2000	U		P
7440-66-6	Zinc	20.0	U		P

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:



METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

WG-5513-032609-006

Contract: R0901679

Lab Code: Case No.: SAS No.: SDG NO.: 5513-20

Matrix (soil/water): WATER Lab Sample ID: R0901679-006

Level (low/med): LOW Date Received: 03/27/09

Concentration Units (ug/L or mg/kg dry weight):  $\mu\text{G/L}$

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	5490			P
7440-09-7	Potassium	5010			P
7440-66-6	Zinc	11400			P

Color Before: YELLOW Clarity Before: CLOUDY Texture:  
Color After: COLORLESS Clarity After: CLEAR Artifacts:  
Comments:

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

WG-5513-032609-006

Contract: R0901679

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: 5513-20

Matrix (soil/water): WATER Lab Sample ID: R0901679-015

Level (low/med): LOW Date Received: 03/27/09

Concentration Units (ug/L or mg/kg dry weight):  $\mu\text{G/L}$

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	662			P
7440-09-7	Potassium	5130			P
7440-66-6	Zinc	20.0	U		P

Color Before: YELLOW      Clarity Before: CLEAR      Texture:  
Color After: COLORLESS      Clarity After: CLEAR      Artifacts:  
Comments:

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

WG-5513-032609-007

Contract: R0901679

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: 5513-20

Matrix (soil/water): WATER Lab Sample ID: R0901679-007

Level (low/med): LOW Date Received: 03/27/09

Concentration Units (ug/L or mg/kg dry weight):  $\mu\text{G/L}$

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	26000			P
7440-09-7	Potassium	13100			P
7440-66-6	Zinc	7670			P

Color Before: YELLOW      Clarity Before: CLOUDY      Texture:  
 Color After: COLORLESS      Clarity After: CLEAR      Artifacts:  
 Comments:

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

WG-5513-032609-007

Contract: R0901679

Lab Code:

Case No.:

SAS No.:

SDG NO.: 5513-20

Matrix (soil/water): WATER

Lab Sample ID: R0901679-016

Level (low/med): LOW

Date Received: 03/27/09

Concentration Units (ug/L or mg/kg dry weight):  $\mu\text{G/L}$

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	3510			P
7440-09-7	Potassium	13200			P
7440-66-6	Zinc	694			P

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

WG-5513-032609-008

Contract: R0901679

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: 5513-20

Matrix (soil/water): WATER Lab Sample ID: R0901679-008

Level (low/med): LOW Date Received: 03/27/09

Concentration Units (ug/L or mg/kg dry weight):  $\mu\text{G/L}$

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	2330			P
7440-09-7	Potassium	2000	U		P
7440-66-6	Zinc	2320			P

Color Before: YELLOW      Clarity Before: CLOUDY      Texture:  
 Color After: COLORLESS      Clarity After: CLEAR      Artifacts:  
 Comments:

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

WG-5513-032609-008

Contract: R0901679

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: 5513-20

Matrix (soil/water): WATER Lab Sample ID: R0901679-017

Level (low/med): LOW Date Received: 03/27/09

Concentration Units (ug/L or mg/kg dry weight):  $\mu\text{G/L}$

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	100	U		P
7440-09-7	Potassium	2000	U		P
7440-66-6	Zinc	1210			P

Color Before: COLORLESS      Clarity Before: CLEAR      Texture:  
 Color After: COLORLESS      Clarity After: CLEAR      Artifacts:  
 Comments:

METALS

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: R0901679

Lab Code:

Case No.:

SAS No.:

SDG NO.: 5513-20

Initial Calibration Source: PE PURE

Continuing Calibration Source: PE PURE

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Iron	5000.0	5143.42	102.9	5000.0	5159.91	103.2	5120.58	102.4	P
Potassium	50000.0	50139.32	100.3	50000.0	50304.55	100.6	49678.04	99.4	P
Zinc	1000.0	1029.17	102.9	1000.0	1026.45	102.6	1008.25	100.8	P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

METALS

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: R0901679

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: 5513-20

Initial Calibration Source:

Continuing Calibration Source: PE PURE

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration				M	
	True	Found	%R(1)	True	Found	%R(1)	Found		%R(1)
Iron				5000.0	5173.50	103.5	5066.86	101.3	P
Potassium				50000.0	50472.86	100.9	48491.01	97.0	P
Zinc				1000.0	1042.02	104.2	1019.64	102.0	P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115



METALS

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: R0901679

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: 5513-20

Initial Calibration Source:

Continuing Calibration Source: PE PURE

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration				M	
	True	Found	%R(1)	True	Found	%R(1)	Found		%R(1)
Iron				5000.0	5041.79	100.8	5030.65	100.6	P
Potassium				50000.0	48530.86	97.1	48499.55	97.0	P
Zinc				1000.0	998.00	99.8	998.06	99.8	P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

METALS

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: R0901679

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: 5513-20

Initial Calibration Source:

Continuing Calibration Source: PE PURE

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration				M	
	True	Found	%R(1)	True	Found	%R(1)	Found		%R(1)
Iron				5000.0	5095.76	101.9			P
Potassium				50000.0	49989.00	100.0			P
Zinc				1000.0	1040.02	104.0			P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

METALS

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: R0901679

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: 5513-20

Initial Calibration Source: PE PURE

Continuing Calibration Source: PE PURE

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration				M	
	True	Found	%R(1)	True	Found	%R(1)	Found		%R(1)
Zinc	1000.0	1031.84	103.2	1000.0	1015.26	101.5	1039.90	104.0	P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

METALS

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: R0901679

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: 5513-20

Initial Calibration Source:

Continuing Calibration Source: PE PURE

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration				M	
	True	Found	%R(1)	True	Found	%R(1)	Found		%R(1)
Zinc				1000.0	1046.11	104.6	1052.13	105.2	P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

METALS

-2B-

CRDL STANDARD FOR AA AND ICP

Contract: R0901679

Lab Code:

Case No.:

SAS No.:

SDG No.: 5513-20

AA CRDL Standard Source:

ICP CRDL Standard Source: CPI

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
	True	Found	%R	Initial			Final	
				True	Found	%R	Found	%R
Iron				100.0	102.56	102.6	101.08	101.1
Potassium				1000.0	964.31	96.4	971.25	97.1
Zinc				20.0	21.85	109.3	21.57	107.8

METALS

-2B-

CRDL STANDARD FOR AA AND ICP

Contract: R0901679

Lab Code:

Case No.:

SAS No.:

SDG No.: 5513-20

AA CRDL Standard Source:

ICP CRDL Standard Source: CPI

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
	True	Found	%R	Initial			Final	
				True	Found	%R	Found	%R
Iron				100.0			99.99	100.0
Potassium				1000.0			1004.54	100.5
Zinc				20.0			20.92	104.6

METALS

-2B-

CRDL STANDARD FOR AA AND ICP

Contract: R0901679

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 5513-20

AA CRDL Standard Source:

ICP CRDL Standard Source: CPI

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
	True	Found	%R	Initial			Final	
				True	Found	%R	Found	%R
Zinc				20.0	22.29	111.4	23.09	115.4

METALS

-3-

BLANKS

Contract: R0901679

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: 5513-20 \_\_\_\_\_

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
	C	U	1	C	2	C	3	C	C	U	
Iron	100.0	U	100.0	U	100.0	U	100.0	U	100.000	U	P
Potassium	2000.0	U	2000.0	U	2000.0	U	2000.0	U	2000.000	U	P
Zinc	20.0	U	20.0	U	20.0	U	20.0	U	20.000	U	P



METALS

-3-

BLANKS

Contract: R0901679

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: 5513-20

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
			1	C	2	C	3	C			
Iron			100.0	U	100.0	U	100.0	U			P
Potassium			2000.0	U	2000.0	U	2000.0	U			P
Zinc			20.0	U	20.0	U	20.0	U			P

METALS

-3-

BLANKS

Contract: R0901679

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: 5513-20

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
		1	C	2	C	3	C			
Iron		100.0	U							P
Potassium		2000.0	U							P
Zinc		20.0	U							P

METALS

-3-

BLANKS

Contract: R0901679

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: 5513-20

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
			1	C	2	C	3	C			
Zinc	20.0	U	20.0	U	20.0	U	20.0	U			P

METALS

-3-

BLANKS

Contract: R0901679

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: 5513-20

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank	M
		1	2	3					
Zinc		20.0							P

ICP INTERFERENCE CHECK SAMPLE

Contract: R0901679

Lab Code:

Case No.:

SAS No.:

SDG NO.: 5513-20

ICP ID Number: Optima ICP

ICS Source: PE PURE

Concentration Units): ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Iron	200000	200000	190742	194237.8	97.1	190040	191863.6	95.9
Potassium			-34	-26.3		8	-30.3	
Zinc		1000	-3	957.5	95.8	-3	948.3	94.8

ICP INTERFERENCE CHECK SAMPLE

Contract: R0901679

Lab Code:

Case No.:

SAS No.:

SDG NO.: 5513-20

ICP ID Number: Optima ICP

ICS Source: PE PURE

Concentration Units): ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Iron	200000	200000	0	0.0		188631	190160.8	95.1
Potassium			0	0.0		-2	5.0	
Zinc		1000	0	0.0		-4	953.8	95.4

ICP INTERFERENCE CHECK SAMPLE

Contract: R0901679

Lab Code:

Case No.:

SAS No.:

SDG NO.: 5513-20

ICP ID Number: Optima ICP

ICS Source: PE PURE

Concentration Units): ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Zinc		1000	-5	944.7	94.5	-5	968.1	96.8

METALS

-5A-

SPIKE SAMPLE RECOVERY

SAMPLE NO.

WG-5513-032609-00:

Contract: R0901679

Lab Code:

Case No.:

SAS No.:

SDG NO.: 5513-20

Matrix (soil/water): WATER

Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight):  $\mu\text{G/L}$

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Iron	75 - 125	1374.8174	318.8854	1000.00	105.6		P
Potassium	75 - 125	26102.4043	5856.1504	20000.00	101.2		P
Zinc	75 - 125	1201.6771	725.2042	500.00	95.3		P

Comments:

\_\_\_\_\_

\_\_\_\_\_

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\_\_\_\_\_



## METALS

-5B-

## POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

WG-5513-032609-001A

Contract: R0901679

Lab Code:

Case No.:

SAS No.:

SDG NO.: 5513-20

Matrix (soil/water): WATER

Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Iron		1336.96	318.89	1000.0	101.8		P
Potassium		25696.04	5856.15	20000.0	99.2		P
Zinc		1206.00	725.20	500.0	96.2		P

Comments:

METALS

-6-

DUPLICATES

SAMPLE NO.

WG-5513-032609-00

Contract: R0901679

Lab Code:

Case No.:

SAS No.:

SDG NO.: 5513-20

Matrix (soil/water): WATER

Level (low/med): LOW

% Solids for Sample: 0.0

% Solids for Duplicate:

Concentration Units (ug/L or mg/kg dry weight):  $\mu\text{G/L}$

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Iron	100.0	318.8854		315.2823		1.1		P
Potassium	2000.0	5856.1504		5768.2739		1.5		P
Zinc		725.2042		706.9303		2.6		P

METALS

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LABORATORY CONTROL SAMPLE

Contract: R0901679

Lab Code:

Case No.:

SAS No.:

SDG NO.: 5513-20

Solid LCS Source:

Aqueous LCS Source: CPI

Analyte	Aqueous (ug/L)			Solid (mg/kg)				
	True	Found	%R	True	Found	C	Limits	%R
Iron	1000.0	1004.48	100.4					
Potassium	20000.0	18824.64	94.1					
Zinc	500.0	489.83	98.0					

METALS

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ICP SERIAL DILUTIONS

SAMPLE NO.

IG-5513-032609-001

Contract: R0901679

Lab Code:

Case No.:

SAS No.:

SDG NO.: 5513-20

Matrix (soil/water): WATER

Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Differ- ence	Q	M
Iron	318.89		500.00	U	100.0		P
Potassium	5856.15		10000.00	U	100.0		P
Zinc	725.20		780.62		7.6		P

METALS

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ICP SERIAL DILUTIONS

SAMPLE NO.

7G-5513-032609-008

Contract: R0901679

Lab Code:

Case No.:

SAS No.:

SDG NO.: 5513-20

Matrix (soil/water): WATER

Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I) C	Serial Dilution Result (S) C	% Differ- ence	Q	M
Zinc	231.96	249.48	7.6		P

METALS

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Contract: R0901679

Lab Code:

Case No.:

SAS No.:

SDG NO.: 5513-20

ICP ID Number: Optima ICP

Date: 01/07/09

Flame AA ID Number:

Furnace AA ID Number:

Analyte	Wave-length	Back-ground	CRDL (ug/L)	MDL (ug/L)	M
Iron	259.94		100.0	100.0	P
Potassium	766.491		2000.0	2000.0	P
Zinc	206.191		20.0	20.0	P

Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## METALS

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## ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Contract: R0901679

Lab Code:

Case No.:

SAS No.:

SDG NO.: 5513-20

ICP ID Number: Optima ICP

Date: 3/27/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for:			
		Al	Ca	Fe	Mg
Aluminum	308.215	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.833	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.696	0.0000000	0.0000000	0.0000000	0.0000000
Barium	233.527	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.042	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.773	0.0000000	0.0000000	1.2113000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.933	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	-0.0129170	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000
Copper	324.754	0.0000000	0.0000000	-0.2323990	0.0000000
Iron	259.940	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0341769
Molybdenum	202.030	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.491	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.026	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	-0.0827412	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000
Strontium	421.552	0.0000000	0.2043690	0.0000000	0.0000000
Tin	189.933	0.0000000	0.3147270	0.0000000	0.0000000
Titanium	334.941	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	310.230	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	206.191	0.0000000	0.0215000	0.0000000	0.0000000

Comments:

METALS

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ICP LINEAR RANGES (QUARTERLY)

Contract: R0901679

Lab Code:

Case No.:

SAS No.:

SDG NO.: 5513-20

ICP ID Number: Optima ICP

Date: 01/15/09

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	M
Iron	0.20	300000.0	P
Potassium	0.20	300000.0	P
Zinc	0.20	2000.0	P

Comments:



METALS  
-13-  
PREPARATION LOG

Contract: R0901679

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: 5513-20

Method: P

Sample No.	Preparation Date	Initial Volume	Volume (mL)
LCSW	04/02/09	50	50
PBW	04/02/09	50	50
WG-5513-032609	04/02/09	50	50
WG-5513-032609	04/02/09	50	50
WG-5513-032609	04/02/09	50	50
WG-5513-032609	04/02/09	50	50
WG-5513-032609	04/02/09	50	50
WG-5513-032609	04/02/09	50	50
WG-5513-032609	04/02/09	50	50
WG-5513-032609	04/02/09	50	50
WG-5513-032609	04/02/09	50	50
WG-5513-032609	04/02/09	50	50
WG-5513-032609	04/02/09	50	50
WG-5513-032609	04/02/09	50	50
WG-5513-032609	04/02/09	50	50
WG-5513-032609	04/02/09	50	50
WG-5513-032609	04/02/09	50	50
WG-5513-032609	04/02/09	50	50
WG-5513-032609	04/02/09	50	50
WG-5513-032609	04/02/09	50	50

METALS

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ANALYSIS RUN LOG

Contract: R0901679

Lab Code:

Case No.:

SAS No.:

SDG No.: 5513-20

Instrument ID Number: Optima ICP

Method: P

Start Date: 4/6/2009

End Date: 4/6/2009

Sample No.	D/F	Time	% R	Analytes																							
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K E	S G	A A	N L	T V	Z N	C N	
IS Init	1.00	14:40																									
Calib Blank 1	1.00	14:41										X							X							X	
Calib Std 1	1.00	14:46										X														X	
Calib Std 2	1.00	14:52																	X								
Calib Std 3	1.00	14:58										X							X							X	
Calib Std 4	1.00	15:03										X							X							X	
ICV1	1.00	15:09										X							X							X	
ICB1	1.00	15:14										X							X							X	
CRDL1	1.00	15:20										X							X							X	
ICSA1	1.00	15:26										X							X							X	
ICS-AB1	1.00	15:32										X							X							X	
CCV1	1.00	15:37										X							X							X	
CCB1	1.00	15:43										X							X							X	
ZZZZZZ	1.00	15:48																									
ZZZZZZ	3.00	15:54																									
ZZZZZZ	1.00	16:00																									
ZZZZZZ	1.00	16:05																									
ZZZZZZ	1.00	16:11																									
ZZZZZZ	1.00	16:17																									
ZZZZZZ	5.00	16:23																									
ZZZZZZ	1.00	16:28																									
ZZZZZZ	1.00	16:34																									
ZZZZZZ	1.00	16:40																									
CCV2	1.00	16:46										X							X							X	
CCB2	1.00	16:51										X							X							X	
CRDL2	1.00	16:57										X							X							X	
ICSA2	1.00	17:03										X							X							X	
ICS-AB2	1.00	17:08										X							X							X	
ZZZZZZ	1.00	17:14																									
ZZZZZZ	1.00	17:19																									
CCV3	1.00	17:25										X							X							X	
CCB3	1.00	17:30										X							X							X	

\* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

## METALS

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## ANALYSIS RUN LOG

Contract: R0901679

Lab Code:

Case No.:

SAS No.:

SDG No.: 5513-20Instrument ID Number: Optima ICPMethod: PStart Date: 4/6/2009End Date: 4/6/2009

Sample No.	D/F	Time	% R	Analytes																							
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K E	S G	A A	N L	T V	Z N	C N	
PBW	1.00	17:36										X							X						X		
LCSW	1.00	17:41										X							X						X		
WG-5513-032609-001	1.00	17:47										X							X						X		
WG-5513-032609-001D	1.00	17:53										X							X						X		
WG-5513-032609-001S	1.00	17:59										X							X						X		
WG-5513-032609-001A	1.00	18:04										X							X						X		
WG-5513-032609-001L	5.00	18:10										X							X						X		
WG-5513-032609-002	1.00	18:16										X							X						X		
WG-5513-032609-003	1.00	18:21										X							X								
WG-5513-032609-004	1.00	18:27										X							X								
CCV4	1.00	18:33										X							X						X		
CCB4	1.00	18:38										X							X						X		
WG-5513-032609-005	1.00	18:44										X							X						X		
WG-5513-032609-006	1.00	18:49										X							X								
WG-5513-032609-007	1.00	18:55										X							X								
WG-5513-032609-008	1.00	19:01										X							X								
WG-5513-032609-001 SOL	1.00	19:06										X							X						X		
WG-5513-032609-002 SOL	1.00	19:12										X							X						X		
WG-5513-032609-003 SOL	1.00	19:18										X							X						X		
WG-5513-032609-004 SOL	1.00	19:24										X							X						X		
WG-5513-032609-005 SOL	1.00	19:29										X							X						X		
WG-5513-032609-006 SOL	1.00	19:35										X							X						X		
CCV5	1.00	19:41										X							X						X		
CCB5	1.00	19:46										X							X						X		
WG-5513-032609-007 SOL	1.00	19:52										X							X						X		
WG-5513-032609-008 SOL	1.00	19:58										X							X						X		
ZZZZZ	1.00	20:03																									
ZZZZZ	1.00	20:09																									
ZZZZZ	1.00	20:14																									
ZZZZZ	1.00	20:20																									
CCV6	1.00	20:26										X							X						X		
CCB6	1.00	20:31										X							X						X		

\* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

METALS

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ANALYSIS RUN LOG

Contract: R0901679

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: 5513-20

Instrument ID Number: Optima ICP Method: P

Start Date: 4/6/2009 End Date: 4/6/2009

Sample No.	D/F	Time	% R	Analytes																							
				A L	S B	A S	B A	B E	C D	C A	C R	C O	F U	P B	M G	M N	H G	N I	K E	S G	A A	N L	T L	V	Z N	C N	
CRDL3	1.00	20:37													X												X
ICSA3	1.00	20:43													X												X
ICS-AB3	1.00	20:49													X												X
CCV7	1.00	20:54													X												X
CCB7	1.00	21:00													X												X

\* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

METALS

-14-

ANALYSIS RUN LOG

Contract: R0901679

Lab Code:

Case No.:

SAS No.:

SDG No.: 5513-20

Instrument ID Number: Optima ICP

Method: P

Start Date: 4/8/2009

End Date: 4/8/2009

Sample No.	D/F	Time	% R	Analytes																											
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K E	S E	A G	A L	N T	T V	V L	Z N	C N			
IS Init	1.00	09:36																													
Calib Blank 1	1.00	09:37																											X		
Calib Std 1	1.00	09:43																											X		
Calib Std 2	1.00	09:48																													
Calib Std 3	1.00	09:54																											X		
Calib Std 4	1.00	10:00																											X		
ICV2	1.00	10:05																											X		
ICB2	1.00	10:11																											X		
CRDL1	1.00	10:16																											X		
ICSA1	1.00	10:22																											X		
ICS-AB1	1.00	10:28																											X		
CCV1	1.00	10:34																											X		
CCB1	1.00	10:39																											X		
ZZZZZZ	1.00	10:45																													
ZZZZZZ	1.00	10:51																													
ZZZZZZ	5.00	10:56																													
ZZZZZZ	5.00	11:02																													
ZZZZZZ	5.00	11:08																													
ZZZZZZ	5.00	11:13																													
ZZZZZZ	5.00	11:19																													
ZZZZZZ	1.00	11:24																													
ZZZZZZ	1.00	11:30																													
ZZZZZZ	1.00	11:36																													
CCV2	1.00	11:42																											X		
CCB2	1.00	11:47																											X		
ZZZZZZ	1.00	11:53																													
ZZZZZZ	1.00	11:57																													
ZZZZZZ	5.00	12:03																													
ZZZZZZ	1000.0	12:08																													
WG-5513-032609-003	10.00	12:14																											X		
WG-5513-032609-004	10.00	12:20																											X		
WG-5513-032609-006	10.00	12:25																											X		

\* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

METALS

-14-

ANALYSIS RUN LOG

Contract: R0901679

Lab Code:

Case No.:

SAS No.:

SDG No.: 5513-20

Instrument ID Number: Optima ICP

Method: P

Start Date: 4/8/2009

End Date: 4/8/2009

Sample No.	D/F	Time	% R	Analytes																											
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K E	S E	A G	A A	N L	T L	V	Z N	C N			
WG-5513-032609-007	10.00	12:31																											X		
WG-5513-032609-008	10.00	12:36																											X		
WG-5513-032609-008L	50.00	12:42																											X		
CCV3	1.00	12:48																											X		
CCB3	1.00	12:53																											X		
CRDL2	1.00	12:59																											X		
ICSA2	1.00	13:05																											X		
ICS-AB2	1.00	13:11																											X		
ZZZZZZ	1.00	13:16																													
ZZZZZZ	1.00	13:21																													
CCV4	1.00	13:27																											X		
CCB4	1.00	13:32																											X		

\* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

# Metals Cover Page

Analyst: DBond Date: 4/6/09 Instrument: Opt 1

Data File: 04113109 apr 07 aproba Reviewed By: SD 4/7/09 Entered By: SD 4/16/09

Approval: DCJ 4/7/09

Starlims Run #	Analytes Used	Batch ID	Method	Failed Analytes	Comments/ Problems
149043	Fe K Na	84786	60.0		
149044	Fe K Zn	84988	60.0		

## Package Data:

Client Sub#	Package	Analytes Used	Failed Metals	Batch ID	Stds Attached?	Tranferred To LIMS	Raw Data Copied?
✓ R1577	5 / ASP	Fe K Na		84786	Yes / No	MARRS / Run above	Yes / No
	5 / ASP				Yes / No	MARRS / Run above	Yes / No
✓ R1679	5 / ASP	Fe K Zn		84988	Yes / No	MARRS / Run above	Yes / No
	5 / ASP	replat			Yes / No	MARRS / Run above	Yes / No
	5 / ASP	003,004,006,007,008 Zn			Yes / No	MARRS / Run above	Yes / No
	5 / ASP				Yes / No	MARRS / Run above	Yes / No
	5 / ASP				Yes / No	MARRS / Run above	Yes / No
	5 / ASP				Yes / No	MARRS / Run above	Yes / No

Calibration Summary

Method: Radial 200.7/6010b

Date: 4/6/09

2:38:42 PM

Element	Stds	Equation	Intercept	Slope	Curvature	Corr. Coeff.
Method: Radial 200.7/6010b IEC: 032709.iec MSF:						
Results: Apr06a Spectra Stored: Yes Method Stored: Yes						
Sample Info: 2007 User: User1 Date: 4/6/09 2:38:42 PM						
Method Description: Radial 200.7/6010b 8/08						

Mean Data

ID: IS Init

Seq. No.: 1  
Data: Original

A/S Pos: 1  
Date: 4/6/09 2:40:20 PM

Element	Mean Corr. Intensity	Std.Dev.	RSD
Y 371.030	549456.9	6668.60	1.21%

Mean Data

ID: Calib Blank 1

Seq. No.: 2  
Data: Original

A/S Pos: 1  
Date: 4/6/09 2:41:03 PM

Element	Mean Corr. Intensity	Std.Dev.	RSD	Calib Conc.	Units
Y 371.030	583153.1	8889.93	1.52%	1.061	mg/L
Ag 328.068	-392.1	14.03	3.58%	0	mg/L
Al 308.215	28.0	39.90	142.60%	0	mg/L
B 249.773	218.5	0.75	0.34%	0	mg/L
Ba 233.527	15.5	1.67	10.80%	0	mg/L
Be 313.042	58.6	11.69	19.95%	0	mg/L
Ca 317.933	900.6	48.61	5.40%	0	mg/L
Co 228.616	-3.0	0.34	11.01%	0	mg/L
Cr 267.716	62.1	0.48	0.78%	0	mg/L
Cu 324.754	187.5	17.81	9.50%	0	mg/L
Fe 259.940	36.7	11.69	31.89%	0	mg/L
K 766.491	-1110.0	35.05	3.16%	0	mg/L
Mg 279.079	-121.7	1.85	1.52%	0	mg/L
Mn 257.610	-8.4	6.61	79.01%	0	mg/L
Mo 202.030	2.9	0.44	15.41%	0	mg/L
Na 589.592	243.2	44.85	18.45%	0	mg/L
Ni 231.604	0.8	3.22	419.12%	0	mg/L
Sr 421.552	1061.0	81.51	7.68%	0	mg/L
Sn 189.933	-2.6	1.67	63.28%	0	mg/L
Ti 334.941	132.6	33.73	25.43%	0	mg/L
V 310.230	2340.0	13.44	0.57%	0	mg/L
Zn 206.191	0.9	3.81	447.06%	0	mg/L

4/6/09  
DCL

Mean Data

ID: Calib Std 1

Seq. No.: 3  
Data: Original

A/S Pos: 100  
Date: 4/6/09 2:46:35 PM

Element	Mean Corr. Intensity	Std.Dev.	RSD	Calib Conc.	Units
Y 371.030	564507.2	39003.78	6.91%	1.027	mg/L
Ag 328.068	422.1	0.31	0.07%	0.0100	mg/L
B 249.773	2386.2	135.56	5.68%	0.2000	mg/L
Be 313.042	5374.9	31.73	0.59%	0.00500	mg/L
Co 228.616	223.7	15.03	6.72%	0.0500	mg/L
Cr 267.716	121.8	9.70	7.96%	0.0100	mg/L
Fe 259.940	2443.1	31.33	1.28%	0.1000	mg/L
Mo 202.030	29.7	1.29	4.34%	0.0250	mg/L
Ni 231.604	167.1	10.23	6.12%	0.0400	mg/L
Sr 421.552	77364.5	22.32	0.03%	0.1000	mg/L
Sn 189.933	132.5	6.96	5.25%	0.5000	mg/L
Ti 334.941	7841.6	8.44	0.11%	0.0500	mg/L
V 310.230	3262.3	156.19	4.79%	0.0500	mg/L
Zn 206.191	87.1	5.25	6.03%	0.0200	mg/L

Mean Data



ID: Calib Std 2

Seq. No.: 4  
Data: OriginalA/S Pos: 101  
Date: 4/6/09

2:52:07 PM

Element	Mean Corr. Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.030	574030.1	26109.68	4.55%	1.045	mg/L
Al 308.215	346.4	30.92	8.93%	0.1000	mg/L
Ba 233.527	315.4	8.87	2.81%	0.0200	mg/L
Ca 317.933	12114.4	296.95	2.45%	0.5000	mg/L
Cu 324.754	1071.2	17.82	1.66%	0.0200	mg/L
K 766.491	9337.6	105.97	1.13%	2.000	mg/L
Mg 279.079	1443.6	42.06	2.91%	0.5000	mg/L
Mn 257.610	1197.2	10.46	0.87%	0.0100	mg/L
Na 589.592	5676.8	108.55	1.91%	0.5000	mg/L

Mean Data

ID: Calib Std 3

Seq. No.: 5  
Data: OriginalA/S Pos: 102  
Date: 4/6/09

2:57:44 PM

Element	Mean Corr. Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.030	553881.6	28610.95	5.17%	1.008	mg/L
Ag 328.068	7167.7	129.42	1.81%	0.2000	mg/L
Al 308.215	12834.2	195.58	1.52%	4.000	mg/L
B 249.773	11950.3	293.46	2.46%	1.000	mg/L
Ba 233.527	66099.9	1741.26	2.63%	4.000	mg/L
Be 313.042	110105.8	2660.18	2.42%	0.1000	mg/L
Ca 317.933	479034.0	473.54	0.10%	20.000	mg/L
Co 228.616	4468.4	193.81	4.34%	1.000	mg/L
Cr 267.716	2379.7	107.42	4.51%	0.2000	mg/L
Cu 324.754	25935.5	659.86	2.54%	0.5000	mg/L
Fe 259.940	48978.3	1218.02	2.49%	2.000	mg/L
K 766.491	98081.3	3250.03	3.31%	20.000	mg/L
Mg 279.079	54917.4	1310.06	2.39%	20.000	mg/L
Mn 257.610	34453.8	784.91	2.28%	0.3000	mg/L
Mo 202.030	1236.4	49.14	3.97%	1.000	mg/L
Na 589.592	226355.2	1378.62	0.61%	20.000	mg/L
Ni 231.604	3325.0	140.85	4.24%	0.8000	mg/L
Sr 421.552	781025.7	2210.63	0.28%	1.000	mg/L
Sn 189.933	529.3	19.04	3.60%	2.000	mg/L
Ti 334.941	158873.0	3381.75	2.13%	1.000	mg/L
V 310.230	65328.5	1656.54	2.54%	1.000	mg/L
Zn 206.191	1755.0	67.85	3.87%	0.4000	mg/L

Mean Data

ID: Calib Std 4

Seq. No.: 6  
Data: OriginalA/S Pos: 2  
Date: 4/6/09

3:03:10 PM

Element	Mean Corr. Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.030	553256.4	5569.25	1.01%	1.007	mg/L
Ag 328.068	34704.8	383.44	1.10%	1.000	mg/L
Al 308.215	62737.3	274.34	0.44%	20.000	mg/L
B 249.773	60428.6	151.14	0.25%	5.000	mg/L
Ba 233.527	320327.0	438.52	0.14%	20.000	mg/L
Be 313.042	539818.1	362.84	0.07%	0.5000	mg/L
Ca 317.933	2329564.7	577.65	0.02%	100.00	mg/L
Co 228.616	21468.4	71.07	0.33%	5.000	mg/L
Cr 267.716	11357.6	67.00	0.59%	1.000	mg/L
Cu 324.754	126636.5	305.51	0.24%	2.500	mg/L
Fe 259.940	238372.8	328.35	0.14%	10.000	mg/L
K 766.491	486283.9	587.29	0.12%	100.00	mg/L
Mg 279.079	268011.4	54.96	0.02%	100.00	mg/L
Mn 257.610	167488.5	347.91	0.21%	1.500	mg/L
Mo 202.030	6011.7	16.93	0.28%	5.000	mg/L
Na 589.592	1116881.1	359.07	0.03%	100.00	mg/L
Ni 231.604	15772.2	89.23	0.57%	4.000	mg/L
Sr 421.552	3822872.7	64.00	0.00%	5.000	mg/L
Sn 189.933	2510.2	20.48	0.82%	10.000	mg/L
Ti 334.941	787201.0	95.31	0.01%	5.000	mg/L
V 310.230	320196.7	351.46	0.11%	5.000	mg/L
Zn 206.191	8346.7	20.39	0.24%	2.000	mg/L

Calibration Summary

Method: Radial 200.7/6010b

Date: 4/6/09

3:03:30 PM

Element	Stds	Equation	Intercept	Slope	Curvature	Corr. Coeff.
Ag 328.068	3	Linear-thru-Zero	0.0	34749.1	0.00000	0.999959
Al 308.215	3	Linear-thru-Zero	0.0	3139.6	0.00000	0.999982
B 249.773	3	Linear-thru-Zero	0.0	12080.3	0.00000	0.999995
Ba 233.527	3	Linear-thru-Zero	0.0	16035.9	0.00000	0.999965
Be 313.042	3	Linear-thru-Zero	0.0	1080459.5	0.00000	0.999986
Ca 317.933	3	Linear-thru-Zero	0.0	23320.9	0.00000	0.999973
Co 228.616	3	Linear-thru-Zero	0.0	4300.4	0.00000	0.999942
Cr 267.716	3	Linear-thru-Zero	0.0	11378.5	0.00000	0.999921
Cu 324.754	3	Linear-thru-Zero	0.0	50701.6	0.00000	0.999980
Fe 259.940	3	Linear-thru-Zero	0.0	23862.4	0.00000	0.999974
K 766.491	3	Linear-thru-Zero	0.0	4864.3	0.00000	0.999997
Mg 279.079	3	Linear-thru-Zero	0.0	2682.6	0.00000	0.999979
Mn 257.610	3	Linear-thru-Zero	0.0	111781.9	0.00000	0.999972
Mo 202.030	3	Linear-thru-Zero	0.0	1203.6	0.00000	0.999972
Na 589.592	3	Linear-thru-Zero	0.0	11174.5	0.00000	0.999994
Ni 231.604	3	Linear-thru-Zero	0.0	3951.3	0.00000	0.999898
Sr 421.552	3	Linear-thru-Zero	0.0	765210.5	0.00000	0.999984
Sn 189.933	3	Linear-thru-Zero	0.0	251.6	0.00000	0.999885
Ti 334.941	3	Linear-thru-Zero	0.0	157495.2	0.00000	0.999997
V 310.230	3	Linear-thru-Zero	0.0	64089.0	0.00000	0.999986
Zn 206.191	3	Linear-thru-Zero	0.0	4181.6	0.00000	0.999908

Mean Data

ID: IGV

Sample Qty: 1.0000 g

Seq. No.: 7

Prep. Vol.: 1.0 L

Data: Original

Sample No.: 1

1.0 L

A/S Pos: 3

Dilution:

Date: 4/6/09

1.0: 1.0

3:08:37 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	545395.9	0.993	0.0380	mg/L				3.83%
Ag 328.068	17738.1	0.5105	0.00297	mg/L				0.58%
Al 308.215	31773.6	10.12	0.008	mg/L				0.08%
B 249.773	30251.3	2.504	0.0006	mg/L				0.02%
Ba 233.527	156765.2	9.776	0.0337	mg/L				0.35%
Be 313.042	274893.0	0.2544	0.00026	mg/L				0.10%
Ca 317.933	1205418.7	51.69	0.673	mg/L				1.30%
Co 228.616	10917.6	2.539	0.0703	mg/L				2.77%
Cr 267.716	5971.2	0.5248	0.01560	mg/L				2.97%
Cu 324.754	63910.7	1.261	0.0000	mg/L				0.00%
Fe 259.940	122734.4	5.143	0.0010	mg/L				0.02%
K 766.491	243895.2	50.14	0.360	mg/L				0.72%
Mg 279.079	136709.7	50.96	0.130	mg/L				0.25%
Mn 257.610	85757.3	0.7672	0.00090	mg/L				0.12%
Mo 202.030	3071.2	2.552	0.0760	mg/L				2.98%
Na 589.592	563951.3	50.47	0.851	mg/L				1.69%
Ni 231.604	8151.1	2.063	0.0630	mg/L				3.05%
Sr 421.552	1947586.9	2.545	0.0376	mg/L				1.48%
Sn 189.933	1293.2	5.140	0.1628	mg/L				3.17%
Ti 334.941	387379.5	2.460	0.0033	mg/L				0.13%
V 310.230	162444.3	2.535	0.0021	mg/L				0.08%
Zn 206.191	4303.6	1.029	0.0276	mg/L				2.68%

Mean Data

ID: ICB

Sample Qty: 1.0000 g

Seq. No.: 8

Prep. Vol.: 1.0 L

Data: Original

Sample No.: 2

1.0 L

A/S Pos: 1

Dilution:

Date: 4/6/09

1.0: 1.0

3:14:12 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	548777.4	0.999	0.0554	mg/L				5.55%
Ag 328.068	58.5	0.0017	0.00018	mg/L				10.97%
Al 308.215	-1.8	-0.0006	0.00876	mg/L				>999.9%
B 249.773	343.5	0.0284	0.00383	mg/L				13.46%
Ba 233.527	16.0	0.0010	0.00047	mg/L				47.66%
Be 313.042	57.3	0.0001	0.00010	mg/L				195.50%
Ca 317.933	215.8	0.0093	0.00165	mg/L				17.88%
Co 228.616	-1.1	-0.0003	0.00038	mg/L				146.65%

Cr 267.716	8.7	0.0008	0.00060 mg/L	77.98%
Cu 324.754	42.0	0.0008	0.00149 mg/L	179.68%
Fe 259.940	8.6	0.0004	0.00014 mg/L	37.95%
K 766.491	-14.5	-0.0030	0.01427 mg/L	478.75%
Mg 279.079	16.4	0.0061	0.01307 mg/L	214.20%
Mn 257.610	2.0	0.0000	0.00003 mg/L	145.06%
Mo 202.030	1.8	0.0015	0.00057 mg/L	38.46%
Na 589.592	96.3	0.0086	0.00859 mg/L	99.62%
Ni 231.604	3.1	0.0008	0.00025 mg/L	31.89%
Sr 421.552	212.9	0.0003	0.00032 mg/L	115.11%
Sn 189.933	-3.1	-0.0124	0.00543 mg/L	43.83%
Ti 334.941	62.0	0.0004	0.00010 mg/L	24.24%
V 310.230	175.8	0.0027	0.00140 mg/L	51.13%
Zn 206.191	2.4	0.0006	0.00007 mg/L	11.48%

## Mean Data

ID: MRL   Seq. No.: 9                   Sample No.: 3                   A/S Pos: 6  
 Sample Qty: 1.0000 g                   Prep. Vol.: 1.0 L                   Dilution: 1.0: 1.0  
   Data: Original   Date: 4/6/09                   3:19:44 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	569147.1	1.036	0.0679	mg/L				6.55%
Ag 328.068	386.2	0.0111	0.00097	mg/L				8.74%
Al 308.215	654.7	0.2085	0.00317	mg/L				1.52%
B 249.773	2450.5	0.2029	0.00072	mg/L				0.35%
Ba 233.527	3380.4	0.2108	0.00910	mg/L				4.32%
Be 313.042	5324.9	0.0049	0.00005	mg/L				1.08%
Ca 317.933	23849.3	1.023	0.0033	mg/L				0.33%
Co 228.616	223.2	0.0519	0.00146	mg/L				2.81%
Cr 267.716	122.5	0.0108	0.00018	mg/L				1.66%
Cu 324.754	1282.4	0.0253	0.00051	mg/L				2.02%
Fe 259.940	2447.2	0.1026	0.00241	mg/L				2.35%
K 766.491	4690.8	0.9643	0.02890	mg/L				3.00%
Mg 279.079	2794.7	1.042	0.0004	mg/L				0.04%
Mn 257.610	1747.5	0.0156	0.00006	mg/L				0.41%
Mo 202.030	31.0	0.0258	0.00331	mg/L				12.86%
Na 589.592	11331.0	1.014	0.0015	mg/L				0.15%
Ni 231.604	172.4	0.0436	0.00288	mg/L				6.61%
Sr 421.552	76762.6	0.1003	0.00003	mg/L				0.03%
Sn 189.933	129.9	0.5162	0.01807	mg/L				3.50%
Ti 334.941	7704.4	0.0489	0.00004	mg/L				0.08%
V 310.230	3108.5	0.0485	0.00134	mg/L				2.76%
Zn 206.191	91.4	0.0218	0.00000	mg/L				0.02%

## Mean Data

ID: IC5A   Seq. No.: 10                   Sample No.: 4                   A/S Pos: 7  
 Sample Qty: 1.0000 g                   Prep. Vol.: 1.0 L                   Dilution: 1.0: 1.0  
   Data: Original   Date: 4/6/09                   3:25:31 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	534392.5	0.973	0.0233	mg/L				2.40%
Ag 328.068	-627.5	-0.0023	0.00035	mg/L				15.20%
Al 308.215	1589941.9	506.4	1.67	mg/L				0.33%
B 249.773	1795.7	-0.0824	0.00131	mg/L				1.59%
Ba 233.527	108.7	0.0068	0.00050	mg/L				7.37%
Be 313.042	148.1	0.0001	0.00002	mg/L				12.72%
Ca 317.933	11223071.2	481.2	11.40	mg/L				2.37%
Co 228.616	8.3	0.0019	0.00040	mg/L				20.77%
Cr 267.716	-99.8	-0.0026	0.00014	mg/L				5.40%
Cu 324.754	-1722.6	0.0104	0.00099	mg/L				9.58%
Fe 259.940	4551566.7	190.7	1.20	mg/L				0.63%
K 766.491	-163.8	-0.0337	0.01253	mg/L				37.19%
Mg 279.079	1373193.6	511.9	2.71	mg/L				0.53%
Mn 257.610	2393.0	0.0039	0.00026	mg/L				6.57%
Mo 202.030	-13.1	-0.0108	0.00124	mg/L				11.43%
Na 589.592	47.8	0.0043	0.00214	mg/L				50.14%
Ni 231.604	-1.2	-0.0003	0.00093	mg/L				306.42%
Sr 421.552	3596.0	-0.0937	0.00242	mg/L				2.58%
Sn 189.933	11.3	-0.1067	0.00734	mg/L				6.88%
Ti 334.941	-126.7	-0.0008	0.00002	mg/L				2.06%
V 310.230	242.6	0.0038	0.00058	mg/L				15.33%

Zn 206.191 29.0 -0.0034 0.00086 mg/L 25.27%

Mean Data

ID: ICSAB Seq. No.: 11 Sample No.: 5 A/S Pos: 8  
 Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0  
 Date: 4/6/09 3:31:29 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	528450.9	0.962	0.0113	mg/L				1.17%
Ag 328.068	34979.7	1.023	0.0009	mg/L				0.09%
Al 308.215	1620880.5	516.3	10.93	mg/L				2.12%
B 249.773	1738.9	-0.0913	0.00513	mg/L				5.62%
Ba 233.527	7943.4	0.4954	0.00247	mg/L				0.50%
Be 313.042	532166.2	0.4925	0.00995	mg/L				2.02%
Ca 317.933	11602190.7	497.5	12.25	mg/L				2.46%
Co 228.616	2110.0	0.4906	0.00370	mg/L				0.75%
Cr 267.716	5624.4	0.5007	0.00204	mg/L				0.41%
Cu 324.754	22785.4	0.4945	0.00088	mg/L				0.18%
Fe 259.940	4634982.1	194.2	3.53	mg/L				1.82%
K 766.491	-128.1	-0.0263	0.02197	mg/L				83.42%
Mg 279.079	1398697.3	521.4	9.15	mg/L				1.75%
Mn 257.610	56867.6	0.4909	0.00173	mg/L				0.35%
Mo 202.030	-17.3	-0.0144	0.00173	mg/L				11.99%
Na 589.592	-0.7	-0.0001	0.00270	mg/L				>999.9%
Ni 231.604	3792.8	0.9599	0.00285	mg/L				0.30%
Sr 427.552	3739.5	-0.0968	0.00252	mg/L				2.60%
Sn 189.933	11.9	-0.1094	0.01926	mg/L				17.60%
Ti 334.941	-113.8	-0.0007	0.00002	mg/L				2.75%
V 310.230	32071.2	0.5004	0.00100	mg/L				0.20%
Zn 206.191	4048.7	0.9575	0.00188	mg/L				0.20%

Mean Data

ID: GCV Seq. No.: 12 Sample No.: 6 A/S Pos: 3  
 Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0  
 Date: 4/6/09 3:37:22 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	568618.2	1.035	0.0309	mg/L				2.98%
Ag 328.068	17858.7	0.5139	0.00183	mg/L				0.36%
Al 308.215	31758.5	10.12	0.011	mg/L				0.11%
B 249.773	30286.6	2.507	0.0117	mg/L				0.47%
Ba 233.527	156898.5	9.784	0.0161	mg/L				0.16%
Be 313.042	275354.1	0.2548	0.00044	mg/L				0.17%
Ca 317.933	1202133.4	51.55	0.076	mg/L				0.15%
Co 228.616	10910.3	2.537	0.0567	mg/L				2.24%
Cr 267.716	5951.5	0.5230	0.01459	mg/L				2.79%
Cu 324.754	64377.9	1.270	0.0028	mg/L				0.22%
Fe 259.940	123127.9	5.160	0.0030	mg/L				0.06%
K 766.491	244698.9	50.30	0.330	mg/L				0.66%
Mg 279.079	136383.8	50.84	0.070	mg/L				0.14%
Mn 257.610	85726.0	0.7669	0.00125	mg/L				0.16%
Mo 202.030	3066.3	2.548	0.0606	mg/L				2.38%
Na 589.592	561214.0	50.22	0.005	mg/L				0.01%
Ni 231.604	8162.5	2.066	0.0563	mg/L				2.73%
Sr 427.552	1941051.4	2.537	0.0075	mg/L				0.30%
Sn 189.933	1286.0	5.112	0.1490	mg/L				2.91%
Ti 334.941	387825.7	2.462	0.0003	mg/L				0.01%
V 310.230	162673.4	2.538	0.0012	mg/L				0.05%
Zn 206.191	4292.2	1.026	0.0231	mg/L				2.25%

Mean Data

ID: CCB Seq. No.: 13 Sample No.: 7 A/S Pos: 1  
 Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0  
 Date: 4/6/09 3:42:57 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	564404.8	1.027	0.0655	mg/L				6.38%
Ag 328.068	51.4	0.0015	0.00029	mg/L				19.74%
Al 308.215	5.3	0.0017	0.00177	mg/L				105.79%
B 249.773	178.2	0.0148	0.00411	mg/L				27.90%

Ba 233.527	8.0	0.0005	0.00035 mg/L	70.38%
Be 313.042	33.4	0.0000	0.00002 mg/L	80.12%
Ca 317.933	259.2	0.0111	0.00558 mg/L	50.25%
Co 228.616	-0.3	-0.0001	0.00081 mg/L	>999.9%
Cr 267.716	-4.7	-0.0004	0.00171 mg/L	412.30%
Cu 324.754	59.4	0.0012	0.00063 mg/L	53.68%
Fe 259.940	45.9	0.0019	0.00055 mg/L	28.62%
K 766.491	42.1	0.0087	0.01078 mg/L	124.52%
Mg 279.079	32.8	0.0122	0.00092 mg/L	7.56%
Mn 257.610	6.9	0.0001	0.00006 mg/L	91.37%
Mo 202.030	-1.1	-0.0009	0.00014 mg/L	14.55%
Na 589.592	71.2	0.0064	0.01362 mg/L	213.59%
Ni 231.604	4.4	0.0011	0.00026 mg/L	23.37%
Sr 421.552	48.8	0.0001	0.00021 mg/L	325.89%
Sn 189.933	-0.3	-0.0013	0.00576 mg/L	432.21%
Ti 334.941	46.8	0.0003	0.00016 mg/L	54.44%
V 310.230	92.6	0.0014	0.00311 mg/L	215.47%
Zn 206.191	4.2	0.0010	0.00017 mg/L	17.38%

Mean Data

ID: PBS-84786      Seq. No.: 14      Sample No.: 1      A/S Pos: 9  
 Sample Qty: 1.0000 g      Prep. Vol.: 100.0 mL      Dilution: 1.0: 1.0  
 Date: Original      Date: 4/6/09      3:48:27 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	553349.2	1.007	0.0552	mg/L				5.48%
Ag 328.068	29.9	0.0009	0.00145	mg/L				168.56%
Al 308.215	-7.4	-0.0024	0.00393	mg/L				166.05%
B 249.773	83.8	0.0069	0.00034	mg/L				4.90%
Ba 233.527	11.7	0.0007	0.00126	mg/L				171.46%
Be 313.042	58.1	0.0001	0.00004	mg/L				65.16%
Ca 317.933	338.0	0.0145	0.00346	mg/L				23.86%
Co 228.616	1.8	0.0004	0.00015	mg/L				35.75%
Cr 267.716	5.1	0.0005	0.00043	mg/L				95.09%
Cu 324.754	115.2	0.0023	0.00017	mg/L				7.41%
Fe 259.940	171.6	0.0072	0.00027	mg/L				3.80%
K 766.491	-130.1	-0.0267	0.07351	mg/L				274.94%
Mg 279.079	45.7	0.0170	0.01513	mg/L				88.87%
Mn 257.610	11.4	0.0001	0.00002	mg/L				18.95%
Mo 202.030	0.3	0.0003	0.00009	mg/L				33.88%
Na 589.592	-10.9	-0.0010	0.00433	mg/L				444.58%
Ni 231.604	7.3	0.0018	0.00197	mg/L				107.15%
Sr 421.552	-146.8	-0.0002	0.00023	mg/L				119.81%
Sn 189.933	-1.3	-0.0052	0.00485	mg/L				94.15%
Ti 334.941	51.3	0.0003	0.00026	mg/L				80.74%
V 310.230	-37.7	-0.0006	0.00202	mg/L				343.62%
Zn 206.191	9.8	0.0023	0.00073	mg/L				31.24%

Mean Data

ID: LCSS 1/3      Seq. No.: 15      Sample No.: 2      A/S Pos: 10  
 Sample Qty: 1.0000 g      Prep. Vol.: 100.0 mL      Dilution: 1.0: 3.0  
 Date: Original      Date: 4/6/09      3:54:00 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	576398.8	1.049	0.0490	mg/L				4.67%
Ag 328.068	11698.8	0.3367	0.00025	mg/L				0.08%
Al 308.215	72350.2	23.04	0.000	mg/L				0.00%
B 249.773	4605.7	0.3813	0.01078	mg/L				2.83%
Ba 233.527	20040.5	1.250	0.0022	mg/L				0.17%
Be 313.042	236086.6	0.2185	0.00034	mg/L				0.15%
Ca 317.933	328495.9	14.09	0.000	mg/L				0.00%
Co 228.616	936.0	0.2177	0.00626	mg/L				2.88%
Cr 267.716	7218.0	0.6344	0.01571	mg/L				2.48%
Cu 324.754	12283.2	0.2423	0.00159	mg/L				0.66%
Fe 259.940	923348.4	38.69	0.017	mg/L				0.04%
K 766.491	39912.4	8.205	0.0094	mg/L				0.11%
Mg 279.079	21193.8	7.900	0.0425	mg/L				0.54%
Mn 257.610	82433.0	0.7374	0.00023	mg/L				0.03%
Mo 202.030	118.2	0.0982	0.00131	mg/L				1.34%
Na 589.592	26823.3	2.400	0.0110	mg/L				0.46%
Ni 231.604	1245.1	0.3151	0.00604	mg/L				1.92%

Sr 421.552	95455.7	0.1247	0.00013 mg/L	0.11%
Sn 189.933	85.7	0.3408	0.01539 mg/L	4.52%
Ti 334.941	153310.9	0.9734	0.00025 mg/L	0.03%
V 310.230	31485.3	0.4913	0.00225 mg/L	0.46%
Zn 206.191	6040.2	1.444	0.0400 mg/L	2.77%

## Mean Data

ID: R0901577-001      Seq. No.: 16      Sample No.: 3      A/S Pos: 11  
 Sample Qty: 1.0000 g      Prep. Vol.: 100.0 mL      Dilution: 1.0: 1.0  
 Data: Original      Date: 4/6/09      3:59:40 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	559604.5	1.018	0.0366	mg/L				3.59%
Ag 328.068	-757.0	-0.0035	0.00061	mg/L				17.74%
Al 308.215	309756.4	98.66	0.265	mg/L				0.27%
B 249.773	2519.9	-0.0596	0.00495	mg/L				8.31%
Ba 233.527	5907.3	0.3684	0.00515	mg/L				1.40%
Be 313.042	4066.0	0.0038	0.00009	mg/L				2.32%
Ca 317.933	885704.2	37.98	0.151	mg/L				0.40%
Co 228.616	362.0	0.0842	0.00166	mg/L				1.97%
Cr 267.716	1453.0	0.1277	0.00204	mg/L				1.60%
Cu 324.754	11389.8	0.2761	0.00116	mg/L				0.42%
Fe 259.940	5283121.4	221.4	1.84	mg/L				0.83%
K 766.491	34345.1	7.061	0.0562	mg/L				0.80%
Mg 279.079	122228.3	45.56	0.062	mg/L				0.14%
Mn 257.610	494130.0	4.420	0.0025	mg/L				0.06%
Mo 202.030	3.0	0.0025	0.00101	mg/L				40.99%
Na 589.592	2847.8	0.2549	0.01127	mg/L				4.42%
Ni 231.604	881.6	0.2231	0.00427	mg/L				1.91%
Sr 421.552	160018.3	0.2091	0.00023	mg/L				0.11%
Sn 189.933	3.2	0.0126	0.00883	mg/L				70.22%
Ti 334.941	57107.2	0.3626	0.00024	mg/L				0.07%
V 310.230	12175.6	0.1900	0.00247	mg/L				1.30%
Zn 206.191	6455.8	1.544	0.0316	mg/L				2.04%

## Mean Data

ID: R0901577-001D      Seq. No.: 17      Sample No.: 4      A/S Pos: 12  
 Sample Qty: 1.0000 g      Prep. Vol.: 100.0 mL      Dilution: 1.0: 1.0  
 Data: Original      Date: 4/6/09      4:05:24 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	573688.8	1.044	0.0364	mg/L				3.49%
Ag 328.068	-715.1	-0.0034	0.00123	mg/L				36.67%
Al 308.215	297620.8	94.79	0.264	mg/L				0.28%
B 249.773	2572.9	-0.0390	0.00601	mg/L				15.40%
Ba 233.527	7339.6	0.4577	0.00958	mg/L				2.09%
Be 313.042	4489.9	0.0042	0.00009	mg/L				2.15%
Ca 317.933	969946.2	41.59	0.017	mg/L				0.04%
Co 228.616	328.5	0.0764	0.00295	mg/L				3.86%
Cr 267.716	1334.8	0.1173	0.00221	mg/L				1.89%
Cu 324.754	11080.5	0.2669	0.00023	mg/L				0.09%
Fe 259.940	4964325.8	208.0	2.57	mg/L				1.24%
K 766.491	32738.2	6.730	0.0783	mg/L				1.16%
Mg 279.079	106568.8	39.73	0.040	mg/L				0.10%
Mn 257.610	530572.6	4.746	0.0105	mg/L				0.22%
Mo 202.030	-0.6	-0.0005	0.00155	mg/L				320.71%
Na 589.592	6070.0	0.5432	0.00626	mg/L				1.15%
Ni 231.604	782.9	0.1981	0.00376	mg/L				1.90%
Sr 421.552	221154.9	0.2890	0.00098	mg/L				0.34%
Sn 189.933	7.2	0.0286	0.00498	mg/L				17.40%
Ti 334.941	61210.7	0.3887	0.00058	mg/L				0.15%
V 310.230	11654.6	0.1819	0.00193	mg/L				1.06%
Zn 206.191	6253.2	1.495	0.0264	mg/L				1.77%

## Mean Data

ID: R0901577-001S      Seq. No.: 18      Sample No.: 5      A/S Pos: 13  
 Sample Qty: 1.0000 g      Prep. Vol.: 100.0 mL      Dilution: 1.0: 1.0  
 Data: Original      Date: 4/6/09      4:11:10 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
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Element	Intensity	Mean	Std.Dev.	Calib	Mean	RSD
Y 371.030	575601.4	1.048	0.0213	mg/L	2.03%	
Ag 328.068	853.7	0.0435	0.00022	mg/L	0.50%	
Al 308.215	322674.5	102.8	0.37	mg/L	0.36%	
B 249.773	13369.3	0.8302	0.01062	mg/L	1.28%	
Ba 233.527	34715.1	2.165	0.0029	mg/L	0.13%	
Be 313.042	54325.6	0.0503	0.00009	mg/L	0.18%	
Ca 317.933	1997657.5	85.66	0.043	mg/L	0.05%	
Co 228.616	2407.2	0.5598	0.00042	mg/L	0.08%	
Cr 267.716	3636.8	0.3196	0.00047	mg/L	0.15%	
Cu 324.754	23194.2	0.5105	0.00217	mg/L	0.42%	
Fe 259.940	5446285.3	228.2	6.63	mg/L	2.91%	
K 766.491	121431.5	24.96	0.083	mg/L	0.33%	
Mg 279.079	210577.6	78.50	0.568	mg/L	0.72%	
Mn 257.610	656364.0	5.872	0.0045	mg/L	0.08%	
Mo 202.030	551.6	0.4583	0.00047	mg/L	0.10%	
Na 589.592	213160.3	19.08	0.132	mg/L	0.69%	
Ni 231.604	2788.2	0.7056	0.00008	mg/L	0.01%	
Sr 421.552	141182.2	0.1845	0.00064	mg/L	0.35%	
Sn 189.933	1209.4	4.807	0.0185	mg/L	0.38%	
Ti 334.941	104473.3	0.6633	0.00035	mg/L	0.05%	
V 310.230	41816.4	0.6525	0.00040	mg/L	0.06%	
Zn 206.191	8096.1	1.936	0.0025	mg/L	0.13%	

Mean Data

ID: R0901577-001A      Seq. No.: 19      Sample No.: 6      A/S Pos: 14  
 Sample Qty: 1.0000 mL      Prep. Vol.: 100.0 mL      Dilution: 1.0: 1.0  
 Date: 4/6/09      4:16:54 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev. Units	RSD
Y 371.030	552063.2	1.005	0.0341	mg/L			3.39%
Ag 328.068	725.0	0.0393	0.00086	mg/L			2.19%
Al 308.215	322802.8	102.8	0.20	mg/L			0.20%
B 249.773	14332.6	0.9162	0.02577	mg/L			2.81%
Ba 233.527	36566.0	2.280	0.0060	mg/L			0.26%
Be 313.042	56524.9	0.0523	0.00007	mg/L			0.14%
Ca 317.933	943604.6	40.46	0.400	mg/L			0.99%
Co 228.616	2496.0	0.5804	0.01260	mg/L			2.17%
Cr 267.716	3727.1	0.3276	0.00534	mg/L			1.63%
Cu 324.754	23741.2	0.5201	0.00169	mg/L			0.33%
Fe 259.940	5322868.1	223.1	2.39	mg/L			1.07%
K 766.491	128139.1	26.34	0.068	mg/L			0.26%
Mg 279.079	129026.8	48.10	0.234	mg/L			0.49%
Mn 257.610	558422.3	4.996	0.0042	mg/L			0.08%
Mo 202.030	0.5	0.0004	0.00136	mg/L			330.64%
Na 589.592	222303.3	19.89	0.054	mg/L			0.27%
Ni 231.604	2899.7	0.7339	0.00997	mg/L			1.36%
Sr 421.552	164371.6	0.2148	0.00042	mg/L			0.20%
Sn 189.933	2.7	0.0108	0.00616	mg/L			56.85%
Ti 334.941	59398.7	0.3771	0.00862	mg/L			2.29%
V 310.230	43655.7	0.6812	0.00034	mg/L			0.05%
Zn 206.191	8445.6	2.020	0.0384	mg/L			1.90%

Mean Data

ID: R0901577-001L      Seq. No.: 20      Sample No.: 7      A/S Pos: 15  
 Sample Qty: 1.0000 mL      Prep. Vol.: 100.0 mL      Dilution: 1.0: 1.0  
 Date: 4/6/09      4:22:34 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev. Units	RSD
Y 371.030	576945.5	1.050	0.0476	mg/L			4.53%
Ag 328.068	-163.3	-0.0047	0.00138	mg/L			29.46%
Al 308.215	67375.2	21.46	0.450	mg/L			2.10%
B 249.773	566.4	0.0469	0.00345	mg/L			7.37%
Ba 233.527	1271.2	0.0793	0.00251	mg/L			3.17%
Be 313.042	844.7	0.0008	0.00001	mg/L			1.76%
Ca 317.933	192598.0	8.259	0.0207	mg/L			0.25%
Co 228.616	81.1	0.0189	0.00064	mg/L			3.39%
Cr 267.716	307.2	0.0270	0.00067	mg/L			2.49%
Cu 324.754	2514.1	0.0607	0.00200	mg/L			3.29%
Fe 259.940	1144560.7	47.97	0.152	mg/L			0.32%
K 766.491	7454.0	1.532	0.0420	mg/L			2.74%
Mg 279.079	26468.3	9.866	0.2343	mg/L			2.38%

Mn 257.610	105381.3	0.9427	0.00188 mg/L	0.20%
Mo 202.030	-1.1	-0.0009	0.00033 mg/L	36.26%
Na 589.592	671.8	0.0601	0.00698 mg/L	11.62%
Ni 231.604	187.4	0.0474	0.00193 mg/L	4.08%
Sr 421.552	35138.5	0.0459	0.00126 mg/L	2.75%
Sn 189.933	0.9	0.0034	0.00075 mg/L	22.33%
Ti 334.941	12448.9	0.0790	0.00223 mg/L	2.82%
V 310.230	2627.0	0.0410	0.00235 mg/L	5.73%
Zn 206.191	1406.9	0.3364	0.01242 mg/L	3.69%

Mean Data

ID: R0901577-002      Seq. No.: 21      Sample No.: 8      A/S Pos: 16  
 Sample Qty: 1.0400 g      Prep. Vol.: 100.0 mL      Dilution: 1.0: 1.0  
 Date: Original      Date: 4/6/09      4:28:17 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	563802.2	1.026	0.0578	mg/L				5.63%
Ag 328.068	-705.8	-0.0041	0.00159	mg/L				38.82%
Al 308.215	329760.5	105.0	0.17	mg/L				0.16%
B 249.773	1928.2	-0.0777	0.00361	mg/L				4.65%
Ba 233.527	5168.2	0.3223	0.00976	mg/L				3.03%
Be 313.042	5768.8	0.0053	0.00009	mg/L				1.70%
Ca 317.933	444026.6	19.04	0.028	mg/L				0.15%
Co 228.616	393.7	0.0915	0.00304	mg/L				3.32%
Cr 267.716	1357.9	0.1193	0.00326	mg/L				2.73%
Cu 324.754	16248.8	0.3660	0.00782	mg/L				2.14%
Fe 259.940	4675362.7	195.9	0.12	mg/L				0.06%
K 766.491	20975.2	4.312	0.0687	mg/L				1.59%
Mg 279.079	89402.3	33.33	0.373	mg/L				1.12%
Mn 257.610	187594.0	1.678	0.0250	mg/L				1.49%
Mo 202.030	10.6	0.0088	0.00144	mg/L				16.38%
Na 589.592	6926.1	0.6198	0.00522	mg/L				0.84%
Ni 231.604	1103.8	0.2794	0.00769	mg/L				2.75%
Sr 421.552	101890.8	0.1332	0.00205	mg/L				1.54%
Sn 189.933	5.2	0.0208	0.00326	mg/L				15.65%
Ti 334.941	66445.7	0.4219	0.00681	mg/L				1.61%
V 310.230	62457.4	0.9745	0.01624	mg/L				1.67%
Zn 206.191	3538.1	0.8461	0.02860	mg/L				3.38%

Mean Data

ID: R0901577-003      Seq. No.: 22      Sample No.: 9      A/S Pos: 17  
 Sample Qty: 1.0300 g      Prep. Vol.: 100.0 mL      Dilution: 1.0: 1.0  
 Date: Original      Date: 4/6/09      4:34:02 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	571327.1	1.040	0.0167	mg/L				1.60%
Ag 328.068	-904.5	-0.0056	0.00251	mg/L				45.20%
Al 308.215	406584.9	129.5	0.16	mg/L				0.12%
B 249.773	2255.8	-0.1129	0.00067	mg/L				0.59%
Ba 233.527	5950.2	0.3711	0.00428	mg/L				1.15%
Be 313.042	5293.4	0.0049	0.00004	mg/L				0.79%
Ca 317.933	304143.5	13.04	0.037	mg/L				0.29%
Co 228.616	402.0	0.0935	0.00072	mg/L				0.77%
Cr 267.716	1526.3	0.1341	0.00150	mg/L				1.12%
Cu 324.754	8045.9	0.2162	0.00016	mg/L				0.07%
Fe 259.940	5902671.4	247.4	4.44	mg/L				1.80%
K 766.491	32634.3	6.709	0.0265	mg/L				0.40%
Mg 279.079	134964.8	50.31	0.105	mg/L				0.21%
Mn 257.610	803894.1	7.192	0.0074	mg/L				0.10%
Mo 202.030	-5.7	-0.0048	0.00040	mg/L				8.44%
Na 589.592	2980.1	0.2667	0.00383	mg/L				1.43%
Ni 231.604	844.0	0.2136	0.00418	mg/L				1.96%
Sr 421.552	72149.5	0.0943	0.00014	mg/L				0.15%
Sn 189.933	-3.9	-0.0156	0.00216	mg/L				13.88%
Ti 334.941	65165.6	0.4138	0.00022	mg/L				0.05%
V 310.230	9113.7	0.1422	0.00082	mg/L				0.58%
Zn 206.191	2700.2	0.6457	0.00369	mg/L				0.57%

Mean Data

ID: R0901577-004      Seq. No.: 23      Sample No.: 10      A/S Pos: 18  
 Sample Qty: 1.0000 g      Prep. Vol.: 100.0 mL      Dilution: 1.0: 1.0



Data: Original

Date: 4/6/09

4:39:46 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	553919.5	1.008	0.0641	mg/L				6.36%
Ag 328.068	-583.2	-0.0020	0.00051	mg/L				24.95%
Al 308.215	302242.8	96.27	0.202	mg/L				0.21%
B 249.773	1774.8	-0.0688	0.00293	mg/L				4.26%
Ba 233.527	5036.1	0.3141	0.01255	mg/L				4.00%
Be 313.042	4709.1	0.0044	0.00009	mg/L				2.15%
Ca 317.933	459976.7	19.72	0.018	mg/L				0.09%
Co 228.616	351.8	0.0818	0.00313	mg/L				3.82%
Cr 267.716	1334.2	0.1173	0.00551	mg/L				4.70%
Cu 324.754	15193.5	0.3411	0.00528	mg/L				1.55%
Fe 259.940	4250296.8	178.1	0.27	mg/L				0.15%
K 766.491	23732.9	4.879	0.0626	mg/L				1.28%
Mg 279.079	87006.1	32.43	0.293	mg/L				0.90%
Mn 257.610	152568.4	1.365	0.0177	mg/L				1.30%
Mo 202.030	-0.7	-0.0005	0.00142	mg/L				258.10%
Na 589.592	4903.7	0.4388	0.01830	mg/L				4.17%
Ni 231.604	842.4	0.2132	0.00871	mg/L				4.08%
Sr 421.552	106036.1	0.1386	0.00264	mg/L				1.90%
Sn 189.933	8.7	0.0347	0.00151	mg/L				4.35%
Ti 334.941	78106.3	0.4959	0.00656	mg/L				1.32%
V 310.230	10904.1	0.1701	0.00574	mg/L				3.37%
Zn 206.191	5314.8	1.271	0.0506	mg/L				3.98%

## Mean Data

ID: CCV  
 Sample Qty: 1.0000 g  
 Seq. No.: 24  
 Prep. Vol.:  
 Data: Original  
 Sample No.: 6  
 Dilution: 1.0:  
 Date: 4/6/09 4:45:32 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	589033.1	1.072	0.0225	mg/L				2.10%
Ag 328.068	17574.4	0.5058	0.00086	mg/L				0.17%
Al 308.215	31700.8	10.10	0.036	mg/L				0.36%
B 249.773	29605.2	2.451	0.0169	mg/L				0.69%
Ba 233.527	155916.7	9.723	0.0176	mg/L				0.18%
Be 313.042	274114.5	0.2537	0.00009	mg/L				0.03%
Ca 317.933	1204860.5	51.66	0.234	mg/L				0.45%
Co 228.616	10797.3	2.511	0.0285	mg/L				1.14%
Cr 267.716	5906.7	0.5191	0.00688	mg/L				1.33%
Cu 324.754	63482.7	1.252	0.0022	mg/L				0.18%
Fe 259.940	122189.3	5.121	0.0193	mg/L				0.38%
K 766.491	241651.3	49.68	0.129	mg/L				0.26%
Mg 279.079	134870.7	50.28	0.101	mg/L				0.20%
Mn 257.610	85152.6	0.7618	0.00094	mg/L				0.12%
Mo 202.030	3041.8	2.527	0.0186	mg/L				0.74%
Na 589.592	560981.5	50.20	0.126	mg/L				0.25%
Ni 231.604	8053.1	2.038	0.0219	mg/L				1.08%
Sr 421.552	1951403.1	2.550	0.0101	mg/L				0.40%
Sn 189.933	1267.8	5.039	0.0342	mg/L				0.68%
Ti 334.941	386989.5	2.457	0.0016	mg/L				0.06%
V 310.230	161995.4	2.528	0.0036	mg/L				0.14%
Zn 206.191	4216.1	1.008	0.0110	mg/L				1.09%

## Mean Data

ID: CCB  
 Sample Qty: 1.0000 g  
 Seq. No.: 25  
 Prep. Vol.:  
 Data: Original  
 Sample No.: 7  
 Dilution: 1.0:  
 Date: 4/6/09 4:51:07 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	570390.2	1.038	0.0614	mg/L				5.91%
Ag 328.068	26.8	0.0008	0.00041	mg/L				53.02%
Al 308.215	-10.3	-0.0033	0.01536	mg/L				467.48%
B 249.773	88.3	0.0073	0.00273	mg/L				37.42%
Ba 233.527	15.5	0.0010	0.00017	mg/L				17.87%
Be 313.042	-0.0	0.0000	0.00006	mg/L				>999.9%
Ca 317.933	153.0	0.0066	0.00490	mg/L				74.75%
Co 228.616	-1.5	-0.0004	0.00028	mg/L				78.26%
Cr 267.716	-0.4	0.0000	0.00181	mg/L				>999.9%

Cu 324.754	29.8	0.0006	0.00014 mg/L	24.53%
Fe 259.940	42.7	0.0018	0.00066 mg/L	37.13%
K 766.491	34.8	0.0072	0.03426 mg/L	478.71%
Mg 279.079	61.9	0.0231	0.00825 mg/L	35.73%
Mn 257.610	10.9	0.0001	0.00009 mg/L	97.19%
Mo 202.030	-0.7	-0.0006	0.00152 mg/L	245.72%
Na 589.592	-14.2	-0.0013	0.00090 mg/L	71.31%
Ni 231.604	2.6	0.0007	0.00075 mg/L	113.18%
Sr 421.552	139.4	0.0002	0.00014 mg/L	78.98%
Sn 189.933	-2.5	-0.0099	0.00359 mg/L	36.39%
Ti 334.941	77.7	0.0005	0.00017 mg/L	34.49%
V 310.230	68.2	0.0011	0.00318 mg/L	298.54%
Zn 206.191	4.3	0.0010	0.00024 mg/L	23.53%

Mean Data

ID: MRL	Seq. No.: 26	Sample No.: 3	A/S Pos: 6		
Sample Qty: 1.0000 g	Prep. Vol.: 1.0 L	Dilution: 1.0:	1.0:	1.0:	
	Data: Original	Date: 4/6/09	4:56:40 PM		

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	605438.7	1.102	0.0496	mg/L				4.50%
Ag 328.068	346.5	0.0100	0.00105	mg/L				10.52%
Al 308.215	627.1	0.1997	0.00786	mg/L				3.94%
B 249.773	2231.1	0.1847	0.00111	mg/L				0.60%
Ba 233.527	3323.1	0.2072	0.00542	mg/L				2.62%
Be 313.042	5253.9	0.0049	0.00003	mg/L				0.69%
Ca 317.933	23768.3	1.019	0.0003	mg/L				0.03%
Co 228.616	223.0	0.0519	0.00094	mg/L				1.82%
Cr 267.716	122.1	0.0107	0.00082	mg/L				7.64%
Cu 324.754	1300.9	0.0257	0.00193	mg/L				7.53%
Fe 259.940	2412.1	0.1011	0.00079	mg/L				0.78%
K 766.491	4724.5	0.9713	0.02653	mg/L				2.73%
Mg 279.079	2733.1	1.019	0.0021	mg/L				0.21%
Mn 257.610	1707.6	0.0153	0.00016	mg/L				1.06%
Mo 202.030	27.8	0.0231	0.00106	mg/L				4.60%
Na 589.592	11256.7	1.007	0.0066	mg/L				0.66%
Ni 231.604	167.8	0.0425	0.00156	mg/L				3.66%
Sr 421.552	76868.6	0.1005	0.00024	mg/L				0.24%
Sn 189.933	127.4	0.5064	0.00631	mg/L				1.25%
Ti 334.941	7699.1	0.0489	0.00045	mg/L				0.93%
V 310.230	3024.6	0.0472	0.00126	mg/L				2.67%
Zn 206.191	90.2	0.0216	0.00047	mg/L				2.19%

Mean Data

ID: ICESA	Seq. No.: 27	Sample No.: 4	A/S Pos: 7		
Sample Qty: 1.0000 g	Prep. Vol.: 1.0 L	Dilution: 1.0:	1.0:	1.0:	
	Data: Original	Date: 4/6/09	5:02:27 PM		

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	551108.9	1.003	0.0108	mg/L				1.08%
Ag 328.068	-638.9	-0.0027	0.00013	mg/L				5.02%
Al 308.215	1581799.8	503.8	0.27	mg/L				0.05%
B 249.773	1619.8	-0.0961	0.00315	mg/L				3.27%
Ba 233.527	112.6	0.0070	0.00009	mg/L				1.32%
Be 313.042	99.8	0.0001	0.00001	mg/L				10.00%
Ca 317.933	11394657.5	488.6	4.59	mg/L				0.94%
Co 228.616	5.4	0.0013	0.00086	mg/L				68.15%
Cr 267.716	-99.6	-0.0024	0.00115	mg/L				47.15%
Cu 324.754	-1671.1	0.0112	0.00150	mg/L				13.39%
Fe 259.940	4534804.4	190.0	0.01	mg/L				0.01%
K 766.491	37.2	0.0077	0.00151	mg/L				19.78%
Mg 279.079	1367092.1	509.6	0.12	mg/L				0.02%
Mn 257.610	2364.6	0.0037	0.00035	mg/L				9.36%
Mo 202.030	-13.1	-0.0108	0.00479	mg/L				44.19%
Na 589.592	69.3	0.0062	0.00390	mg/L				62.86%
Ni 231.604	-8.6	-0.0022	0.00083	mg/L				38.05%
Sr 421.552	3593.9	-0.0952	0.00105	mg/L				1.10%
Sn 189.933	11.2	-0.1093	0.02023	mg/L				18.50%
Ti 334.941	-128.1	-0.0008	0.00000	mg/L				0.09%
V 310.230	278.3	0.0043	0.00094	mg/L				21.74%
Zn 206.191	31.8	-0.0029	0.00090	mg/L				31.09%

Mean Data  
 ID: ICSAB  
 Sample Qty: 1.0000 g  
 Seq. No.: 28  
 Prep. Vol.: 1.0 L  
 Data: Original  
 Sample No.: 5  
 Dilution: 1.0: 1.0  
 Date: 4/6/09 5:08:23 PM  
 A/S Pos: 8

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	541918.5	0.986	0.0276	mg/L				2.80%
Ag 328.068	34872.8	1.019	0.0048	mg/L				0.47%
Al 308.215	1607674.8	512.1	0.13	mg/L				0.03%
B 249.773	1596.2	-0.1003	0.00505	mg/L				5.03%
Ba 233.527	7856.4	0.4899	0.00966	mg/L				1.97%
Be 313.042	527950.3	0.4886	0.00010	mg/L				0.02%
Ca 317.933	11408351.2	489.2	5.27	mg/L				1.08%
Co 228.616	2081.7	0.4841	0.00793	mg/L				1.64%
Cr 267.716	5553.9	0.4944	0.01050	mg/L				2.12%
Cu 324.754	22722.8	0.4928	0.00139	mg/L				0.28%
Fe 259.940	4578328.8	191.9	2.42	mg/L				1.26%
K 766.491	-147.4	-0.0303	0.01430	mg/L				47.19%
Mg 279.079	1392031.7	518.9	1.23	mg/L				0.24%
Mn 257.610	56805.0	0.4904	0.00062	mg/L				0.13%
Mo 202.030	-14.4	-0.0119	0.00011	mg/L				0.94%
Na 589.592	-25.2	-0.0023	0.00267	mg/L				118.39%
Ni 231.604	3753.2	0.9499	0.01740	mg/L				1.83%
Sr 421.552	3514.2	-0.0954	0.00108	mg/L				1.13%
Sn 189.933	14.5	-0.0964	0.01027	mg/L				10.66%
Ti 334.941	-93.3	-0.0006	0.00005	mg/L				7.75%
V 310.230	31910.3	0.4979	0.00027	mg/L				0.05%
Zn 206.191	4009.3	0.9483	0.01741	mg/L				1.84%

Mean Data  
 ID: HLCCV2  
 Sample Qty: 1.0000 g  
 Seq. No.: 29  
 Prep. Vol.: 1.0 L  
 Data: Original  
 Sample No.: 9  
 Dilution: 1.0: 1.0  
 Date: 4/6/09 5:14:03 PM  
 A/S Pos: 103

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	530509.9	0.966	0.0036	mg/L				0.38%
Ag 328.068	63305.5	1.846	0.0008	mg/L				0.04%
Al 308.215	1592473.9	507.2	0.12	mg/L				0.02%
B 249.773	2458.5	-0.1508	0.00418	mg/L				2.77%
Ba 233.527	629722.7	39.27	0.006	mg/L				0.01%
Be 313.042	1061540.5	0.9825	0.00151	mg/L				0.15%
Ca 317.933	11249706.5	482.4	4.15	mg/L				0.86%
Co 228.616	41267.8	9.596	0.0215	mg/L				0.22%
Cr 267.716	110095.8	9.682	0.0365	mg/L				0.38%
Cu 324.754	254815.1	5.094	0.0008	mg/L				0.02%
Fe 259.940	6980897.7	292.5	1.53	mg/L				0.52%
K 766.491	1548370.8	318.3	1.00	mg/L				0.31%
Mg 279.079	1363417.6	508.2	0.39	mg/L				0.08%
Mn 257.610	1092161.5	9.753	0.0007	mg/L				0.01%
Mo 202.030	11420.5	9.488	0.0314	mg/L				0.33%
Na 589.592	4651406.8	416.3	3.27	mg/L				0.78%
Ni 231.604	30391.0	7.691	0.0683	mg/L				0.89%
Sr 421.552	79026.4	0.0047	0.00098	mg/L				20.86%
Sn 189.933	6.2	-0.1272	0.00330	mg/L				2.59%
Ti 334.941	1559853.3	9.904	0.0020	mg/L				0.02%
V 310.230	635673.2	9.919	0.0007	mg/L				0.01%
Zn 206.191	15715.1	3.748	0.0132	mg/L				0.35%

Mean Data  
 ID: HLCCV1  
 Sample Qty: 1.0000 g  
 Seq. No.: 30  
 Prep. Vol.: 1.0 L  
 Data: Original  
 Sample No.: 8  
 Dilution: 1.0: 1.0  
 Date: 4/6/09 5:19:19 PM  
 A/S Pos: 2

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	573783.1	1.044	0.0088	mg/L				0.84%
Ag 328.068	34552.4	0.9943	0.01152	mg/L				1.16%
Al 308.215	62547.2	19.92	0.007	mg/L				0.03%
B 249.773	61241.4	5.070	0.0022	mg/L				0.04%
Ba 233.527	322384.3	20.10	0.027	mg/L				0.13%

Be 313.042	541535.5	0.5012	0.00113 mg/L	0.22%
Ca 317.933	2323871.3	99.65	0.216 mg/L	0.22%
Co 228.616	21432.3	4.984	0.0475 mg/L	0.95%
Cr 267.716	11390.5	1.001	0.0081 mg/L	0.81%
Cu 324.754	127168.2	2.508	0.0037 mg/L	0.15%
Fe 259.940	240261.6	10.07	0.010 mg/L	0.10%
K 766.491	488385.5	100.4	0.51 mg/L	0.51%
Mg 279.079	269489.2	100.5	0.07 mg/L	0.07%
Mn 257.610	168330.3	1.506	0.0006 mg/L	0.04%
Mo 202.030	5986.5	4.974	0.0380 mg/L	0.76%
Na 589.592	1118524.4	100.1	0.35 mg/L	0.35%
Ni 231.604	15813.7	4.002	0.0031 mg/L	0.08%
Sr 421.552	3794091.6	4.958	0.0064 mg/L	0.13%
Sn 189.933	2511.8	9.984	0.0541 mg/L	0.54%
Ti 334.941	786892.6	4.996	0.0019 mg/L	0.04%
V 310.230	321505.0	5.017	0.0026 mg/L	0.05%
Zn 206.191	8260.4	1.975	0.0125 mg/L	0.63%

## Mean Data

ID: GCV Seq. No.: 31 Sample No.: 6 A/S Pos: 3  
 Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0  
 Data: Original Date: 4/6/09 5:24:48 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	569031.5	1.036	0.0140	mg/L				1.35%
Ag 328.068	17900.2	0.5151	0.00295	mg/L				0.57%
Al 308.215	31770.0	10.12	0.018	mg/L				0.18%
B 249.773	30736.0	2.544	0.0015	mg/L				0.06%
Ba 233.527	158007.9	9.853	0.0064	mg/L				0.06%
Be 313.042	275919.7	0.2554	0.00050	mg/L				0.20%
Ca 317.933	1214066.7	52.06	1.042	mg/L				2.00%
Co 228.616	11115.8	2.585	0.0150	mg/L				0.58%
Cr 267.716	6013.9	0.5285	0.00321	mg/L				0.61%
Cu 324.754	64428.9	1.271	0.0006	mg/L				0.05%
Fe 259.940	123452.3	5.174	0.0204	mg/L				0.39%
K 766.491	245517.6	50.47	0.440	mg/L				0.87%
Mg 279.079	137143.4	51.12	0.095	mg/L				0.19%
Mn 257.610	86127.0	0.7705	0.00282	mg/L				0.37%
Mo 202.030	3095.6	2.572	0.0118	mg/L				0.46%
Na 589.592	566212.7	50.67	0.777	mg/L				1.53%
Ni 231.604	8270.7	2.093	0.0163	mg/L				0.78%
Sr 421.552	1955717.8	2.556	0.0511	mg/L				2.00%
Sn 189.933	1303.7	5.182	0.0221	mg/L				0.43%
Ti 334.941	388220.7	2.465	0.0027	mg/L				0.11%
V 310.230	163183.2	2.546	0.0033	mg/L				0.13%
Zn 206.191	4357.3	1.042	0.0071	mg/L				0.68%

## Mean Data

ID: CCB Seq. No.: 32 Sample No.: 7 A/S Pos: 1  
 Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0  
 Data: Original Date: 4/6/09 5:30:21 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	499221.2	0.909	0.0645	mg/L				7.10%
Ag 328.068	-21.9	-0.0006	0.00163	mg/L				259.10%
Al 308.215	-18.3	-0.0058	0.03170	mg/L				544.53%
B 249.773	380.0	0.0315	0.00523	mg/L				16.63%
Ba 233.527	13.6	0.0009	0.00039	mg/L				46.25%
Be 313.042	109.0	0.0001	0.00013	mg/L				124.65%
Ca 317.933	216.3	0.0093	0.00315	mg/L				33.98%
Co 228.616	0.6	0.0001	0.00116	mg/L				824.21%
Cr 267.716	3.3	0.0003	0.00071	mg/L				246.90%
Cu 324.754	29.5	0.0006	0.00012	mg/L				20.65%
Fe 259.940	28.7	0.0012	0.00028	mg/L				22.88%
K 766.491	-197.5	-0.0406	0.01017	mg/L				25.06%
Mg 279.079	-1.4	-0.0005	0.00227	mg/L				444.59%
Mn 257.610	13.9	0.0001	0.00005	mg/L				41.86%
Mo 202.030	0.9	0.0007	0.00000	mg/L				0.59%
Na 589.592	75.5	0.0068	0.00988	mg/L				146.33%
Ni 231.604	2.8	0.0007	0.00080	mg/L				114.04%
Sr 421.552	619.1	0.0008	0.00009	mg/L				10.70%

Sn 189.933	-3.2	-0.0129	0.00056 mg/L	4.37%
Ti 334.941	40.9	0.0003	0.00039 mg/L	150.63%
V 310.230	297.1	0.0046	0.00148 mg/L	31.94%
Zn 206.191	7.6	0.0018	0.00001 mg/L	0.66%

Mean Data

ID: PBW-84988      Seq. No.: 33      Sample No.: 11      A/S Pos: 19  
 Sample Qty: 1.0000 mL      Prep. Vol.: 50.0 mL      Dilution: 1.0: 1.0  
 Data: Original      Date: 4/6/09      5:35:53 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	489838.0	0.891	0.0551	mg/L				6.18%
Ag 328.068	80.8	0.0023	0.00124	mg/L				53.40%
Al 308.215	52.8	0.0168	0.00961	mg/L				57.15%
B 249.773	214.6	0.0178	0.00218	mg/L				12.25%
Ba 233.527	8.8	0.0006	0.00046	mg/L				83.63%
Be 313.042	135.8	0.0001	0.00002	mg/L				18.17%
Ca 317.933	281.3	0.0121	0.00297	mg/L				24.60%
Co 228.616	-1.6	-0.0004	0.00156	mg/L				417.61%
Cr 267.716	9.7	0.0009	0.00070	mg/L				82.34%
Cu 324.754	125.7	0.0025	0.00025	mg/L				9.97%
Fe 259.940	83.7	0.0035	0.00033	mg/L				9.35%
K 766.491	35.4	0.0073	0.01430	mg/L				196.47%
Mg 279.079	94.5	0.0352	0.00110	mg/L				3.12%
Mn 257.610	5.7	0.0001	0.00005	mg/L				97.63%
Mo 202.030	-0.3	-0.0003	0.00203	mg/L				700.45%
Na 589.592	278.3	0.0249	0.01308	mg/L				52.52%
Ni 231.604	-2.0	-0.0005	0.00094	mg/L				190.06%
Sr 421.552	559.1	0.0007	0.00007	mg/L				9.08%
Sn 189.933	-2.4	-0.0095	0.01239	mg/L				131.06%
Ti 334.941	15.4	0.0001	0.00043	mg/L				445.53%
V 310.230	321.2	0.0050	0.00345	mg/L				68.74%
Zn 206.191	9.7	0.0023	0.00012	mg/L				5.31%

Mean Data

ID: LCSW-84988      Seq. No.: 34      Sample No.: 12      A/S Pos: 20  
 Sample Qty: 1.0000 mL      Prep. Vol.: 50.0 mL      Dilution: 1.0: 1.0  
 Data: Original      Date: 4/6/09      5:41:27 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	511117.4	0.930	0.0394	mg/L				4.23%
Ag 328.068	1782.7	0.0513	0.00126	mg/L				2.45%
Al 308.215	6308.4	2.009	0.0078	mg/L				0.39%
B 249.773	11087.5	0.9178	0.00380	mg/L				0.41%
Ba 233.527	30936.3	1.929	0.0064	mg/L				0.33%
Be 313.042	52619.5	0.0487	0.00002	mg/L				0.03%
Ca 317.933	47799.0	2.050	0.0087	mg/L				0.42%
Co 228.616	2200.2	0.5116	0.01103	mg/L				2.16%
Cr 267.716	2317.7	0.2037	0.00618	mg/L				3.04%
Cu 324.754	12887.1	0.2542	0.00129	mg/L				0.51%
Fe 259.940	23969.3	1.004	0.0026	mg/L				0.26%
K 766.491	91569.6	18.82	0.086	mg/L				0.46%
Mg 279.079	5381.7	2.006	0.0098	mg/L				0.49%
Mn 257.610	54987.1	0.4919	0.00244	mg/L				0.50%
Mo 202.030	592.6	0.4923	0.01190	mg/L				2.42%
Na 589.592	217162.0	19.43	0.062	mg/L				0.32%
Ni 231.604	2051.9	0.5193	0.01549	mg/L				2.98%
Sr 421.552	493.7	0.0006	0.00012	mg/L				18.75%
Sn 189.933	1263.6	5.023	0.1787	mg/L				3.56%
Ti 334.941	77081.7	0.4894	0.00068	mg/L				0.14%
V 310.230	31457.8	0.4908	0.00100	mg/L				0.20%
Zn 206.191	2048.3	0.4898	0.01268	mg/L				2.59%

Mean Data

ID: R0901679-001      Seq. No.: 35      Sample No.: 13      A/S Pos: 21  
 Sample Qty: 1.0000 mL      Prep. Vol.: 50.0 mL      Dilution: 1.0: 1.0  
 Data: Original      Date: 4/6/09      5:47:09 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	483263.8	0.880	0.0239	mg/L				2.72%

Ag 328.068	140.0	0.0040	0.00011 mg/L	2.83%
Al 308.215	123.4	0.0393	0.01335 mg/L	33.95%
B 249.773	2814.3	0.2330	0.00280 mg/L	1.20%
Ba 233.527	1684.8	0.1051	0.00118 mg/L	1.12%
Be 313.042	132.5	0.0001	0.00001 mg/L	11.44%
Ca 317.933	4146205.5	177.8	2.49 mg/L	1.40%
Co 228.616	-0.2	0.0000	0.00143 mg/L	>999.9%
Cr 267.716	6.3	0.0006	0.00064 mg/L	113.93%
Cu 324.754	63.0	0.0012	0.00050 mg/L	40.12%
Fe 259.940	7609.4	0.3189	0.00074 mg/L	0.23%
K 766.491	28486.4	5.856	0.0248 mg/L	0.42%
Mg 279.079	178058.5	66.37	0.286 mg/L	0.43%
Mn 257.610	22041.0	0.1972	0.00274 mg/L	1.39%
Mo 202.030	9.6	0.0080	0.00123 mg/L	15.31%
Na 589.592	1299245.0	116.3	0.97 mg/L	0.83%
Ni 231.604	10.6	0.0027	0.00022 mg/L	8.07%
Sr 421.552	461436.0	0.6030	0.00608 mg/L	1.01%
Sn 189.933	4.6	-0.0377	0.00698 mg/L	18.50%
Ti 334.941	-314.2	-0.0020	0.00008 mg/L	4.01%
V 310.230	416.3	0.0065	0.00162 mg/L	24.87%
Zn 206.191	3032.5	0.7252	0.00643 mg/L	0.89%

Mean Data

ID: R0901679-001D      Seq. No.: 36      Sample No.: 14      A/S Pos: 22  
 Sample Qty: 1.0000 mL      Prep. Vol.: 50.0 mL      Dilution: 1.0: 1.0  
 Data: Original      Date: 4/6/09      5:52:53 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	507118.8	0.923	0.0195	mg/L				2.11%
Ag 328.068	34.7	0.0010	0.00011	mg/L				10.87%
Al 308.215	100.0	0.0319	0.00371	mg/L				11.66%
B 249.773	2678.3	0.2217	0.01041	mg/L				4.70%
Ba 233.527	1620.5	0.1011	0.00323	mg/L				3.19%
Be 313.042	110.7	0.0001	0.00001	mg/L				10.17%
Ca 317.933	4095260.5	175.6	5.53	mg/L				3.15%
Co 228.616	1.9	0.0004	0.00047	mg/L				105.57%
Cr 267.716	2.0	0.0002	0.00094	mg/L				544.90%
Cu 324.754	55.8	0.0011	0.00072	mg/L				65.42%
Fe 259.940	7523.4	0.3153	0.00197	mg/L				0.62%
K 766.491	28058.9	5.768	0.0350	mg/L				0.61%
Mg 279.079	174438.1	65.02	0.092	mg/L				0.14%
Mn 257.610	21632.6	0.1935	0.00038	mg/L				0.19%
Mo 202.030	7.9	0.0066	0.00006	mg/L				0.99%
Na 589.592	1286400.6	115.1	3.56	mg/L				3.09%
Ni 231.604	10.0	0.0025	0.00035	mg/L				13.92%
Sr 421.552	456203.8	0.5962	0.01864	mg/L				3.13%
Sn 189.933	9.0	-0.0194	0.00315	mg/L				16.27%
Ti 334.941	-360.6	-0.0023	0.00041	mg/L				17.86%
V 310.230	246.1	0.0038	0.00133	mg/L				34.55%
Zn 206.191	2956.1	0.7069	0.02428	mg/L				3.43%

Mean Data

ID: R0901679-001S      Seq. No.: 37      Sample No.: 15      A/S Pos: 23  
 Sample Qty: 1.0000 mL      Prep. Vol.: 50.0 mL      Dilution: 1.0: 1.0  
 Data: Original      Date: 4/6/09      5:58:38 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	465211.9	0.847	0.0520	mg/L				6.14%
Ag 328.068	1861.4	0.0536	0.00168	mg/L				3.14%
Al 308.215	6728.9	2.143	0.0676	mg/L				3.15%
B 249.773	14769.5	1.223	0.0408	mg/L				3.33%
Ba 233.527	33785.5	2.107	0.0007	mg/L				0.03%
Be 313.042	56581.7	0.0524	0.00037	mg/L				0.71%
Ca 317.933	4101037.8	175.9	4.67	mg/L				2.66%
Co 228.616	2244.4	0.5219	0.01849	mg/L				3.54%
Cr 267.716	2396.7	0.2106	0.00680	mg/L				3.23%
Cu 324.754	13157.8	0.2595	0.00022	mg/L				0.08%
Fe 259.940	32806.5	1.375	0.0035	mg/L				0.26%
K 766.491	126971.2	26.10	0.082	mg/L				0.31%
Mg 279.079	183757.4	68.50	0.067	mg/L				0.10%
Mn 257.610	80094.9	0.7165	0.00043	mg/L				0.06%

Mo 202.030	633.3	0.5261	0.01939 mg/L	3.69%
Na 589.592	1484049.9	132.8	3.29 mg/L	2.47%
Ni 231.604	2071.5	0.5243	0.01618 mg/L	3.09%
Sr 421.552	449836.9	0.5879	0.01454 mg/L	2.47%
Sn 189.933	1330.3	5.232	0.1720 mg/L	3.29%
Ti 334.941	81320.6	0.5163	0.00109 mg/L	0.21%
V 310.230	34002.1	0.5305	0.00353 mg/L	0.67%
Zn 206.191	5024.9	1.202	0.0424 mg/L	3.53%

## Mean Data

ID: R0901679-001A

Sample Qty: 1.0000 mL

Seq. No.: 38

Prep. Vol.:

Data: Original

Sample No.: 16

50.0 mL

A/S Pos: 24

Dilution:

Date: 4/6/09

1.0:

1.0

6:04:21 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	489761.0	0.891	0.0696	mg/L				7.81%
Ag 328.068	1629.7	0.0469	0.00126	mg/L				2.69%
Al 308.215	6475.6	2.063	0.0071	mg/L				0.35%
B 249.773	14752.9	1.221	0.0127	mg/L				1.04%
Ba 233.527	33052.3	2.061	0.0009	mg/L				0.04%
Be 313.042	55283.4	0.0512	0.00003	mg/L				0.06%
Ca 317.933	4119586.8	176.6	2.09	mg/L				1.18%
Co 228.616	2216.2	0.5153	0.02718	mg/L				5.27%
Cr 267.716	2349.4	0.2065	0.01139	mg/L				5.52%
Cu 324.754	12955.3	0.2555	0.00125	mg/L				0.49%
Fe 259.940	31903.0	1.337	0.0076	mg/L				0.57%
K 766.491	124994.5	25.70	0.192	mg/L				0.75%
Mg 279.079	181665.6	67.72	0.518	mg/L				0.76%
Mn 257.610	78440.6	0.7017	0.00452	mg/L				0.64%
Mo 202.030	7.5	0.0063	0.00109	mg/L				17.38%
Na 589.592	1489312.3	133.3	1.28	mg/L				0.96%
Ni 231.604	2025.4	0.5126	0.02575	mg/L				5.02%
Sr 421.552	451985.9	0.5907	0.00795	mg/L				1.35%
Sn 189.933	8.8	-0.0208	0.01096	mg/L				52.76%
Ti 334.941	-372.5	-0.0024	0.00056	mg/L				23.82%
V 310.230	33134.1	0.5170	0.00441	mg/L				0.85%
Zn 206.191	5043.0	1.206	0.0652	mg/L				5.41%

## Mean Data

ID: R0901679-001L

Sample Qty: 1.0000 mL

Seq. No.: 39

Prep. Vol.:

Data: Original

Sample No.: 17

50.0 mL

A/S Pos: 25

Dilution:

Date: 4/6/09

1.0:

1.0

6:09:59 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	488363.5	0.889	0.0411	mg/L				4.62%
Ag 328.068	29.3	0.0008	0.00096	mg/L				113.36%
Al 308.215	7.6	0.0024	0.01392	mg/L				575.95%
B 249.773	678.1	0.0561	0.00276	mg/L				4.92%
Ba 233.527	347.0	0.0216	0.00047	mg/L				2.19%
Be 313.042	132.6	0.0001	0.00003	mg/L				21.34%
Ca 317.933	862348.5	36.98	0.021	mg/L				0.06%
Co 228.616	-4.6	-0.0011	0.00015	mg/L				14.08%
Cr 267.716	11.8	0.0010	0.00025	mg/L				23.65%
Cu 324.754	53.3	0.0011	0.00012	mg/L				11.65%
Fe 259.940	1616.8	0.0678	0.00087	mg/L				1.28%
K 766.491	5551.6	1.141	0.0429	mg/L				3.76%
Mg 279.079	37172.4	13.86	0.270	mg/L				1.95%
Mn 257.610	4565.0	0.0408	0.00077	mg/L				1.88%
Mo 202.030	2.6	0.0022	0.00037	mg/L				17.09%
Na 589.592	267937.7	23.98	0.043	mg/L				0.18%
Ni 231.604	6.6	0.0017	0.00019	mg/L				11.44%
Sr 421.552	94715.9	0.1238	0.00021	mg/L				0.17%
Sn 189.933	1.3	0.0050	0.00699	mg/L				140.50%
Ti 334.941	4.9	0.0000	0.00016	mg/L				521.05%
V 310.230	407.6	0.0064	0.00357	mg/L				56.19%
Zn 206.191	652.9	0.1561	0.00488	mg/L				3.13%

## Mean Data

ID: R0901679-002

Sample Qty: 1.0000 mL

Seq. No.: 40

Prep. Vol.:

Data: Original

Sample No.: 18

50.0 mL

A/S Pos: 26

Dilution:

Date: 4/6/09

1.0:

1.0

6:15:36 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	450987.6	0.821	0.0336	mg/L				4.09%
Ag 328.068	-38.8	-0.0011	0.00191	mg/L				171.45%
Al 308.215	338.2	0.1077	0.01349	mg/L				12.52%
B 249.773	14666.1	1.214	0.0019	mg/L				0.15%
Ba 233.527	2798.7	0.1745	0.00554	mg/L				3.18%
Be 313.042	190.8	0.0002	0.00002	mg/L				12.51%
Ca 317.933	5729852.9	245.7	5.20	mg/L				2.12%
Co 228.616	8.6	0.0020	0.00201	mg/L				100.43%
Cr 267.716	47.7	0.0042	0.00075	mg/L				17.93%
Cu 324.754	526.2	0.0104	0.00158	mg/L				15.23%
Fe 259.940	16683.9	0.6992	0.00642	mg/L				0.92%
K 766.491	36022.9	7.405	0.0866	mg/L				1.17%
Mg 279.079	274143.8	102.2	0.19	mg/L				0.18%
Mn 257.610	3176.3	0.0284	0.00083	mg/L				2.92%
Mo 202.030	-9.1	-0.0075	0.00195	mg/L				25.92%
Na 589.592	2082254.9	186.3	3.55	mg/L				1.91%
Ni 231.604	6.4	0.0016	0.00030	mg/L				18.30%
Sr 421.552	1334300.8	1.718	0.0010	mg/L				0.06%
Sn 189.933	2.0	-0.0695	0.00794	mg/L				11.43%
Ti 334.941	-171.2	-0.0011	0.00025	mg/L				23.30%
V 310.230	527.5	0.0082	0.00101	mg/L				12.26%
Zn 206.191	76.3	0.0183	0.00001	mg/L				0.05%

Mean Data

ID: R0901679-003      Seq. No.: 41      Sample No.: 19      A/S Pos: 27  
 Sample Qty: 1.0000 mL      Prep. Vol.: 50.0 mL      Dilution: 1.0: 1.0  
 Data: Original      Date: 4/6/09      6:21:18 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	492775.9	0.897	0.0273	mg/L				3.05%
Ag 328.068	-149.8	-0.0043	0.00233	mg/L				54.07%
Al 308.215	260.8	0.0831	0.00748	mg/L				9.01%
B 249.773	16610.2	1.375	0.0025	mg/L				0.18%
Ba 233.527	3388.8	0.2113	0.00344	mg/L				1.63%
Be 313.042	163.8	0.0002	0.00006	mg/L				38.18%
Ca 317.933	4787148.8	205.3	0.89	mg/L				0.43%
Co 228.616	17.4	0.0040	0.00066	mg/L				16.30%
Cr 267.716	30.2	0.0027	0.00181	mg/L				68.11%
Cu 324.754	-146.5	0.0085	0.00021	mg/L				2.42%
Fe 259.940	1171577.2	49.10	0.053	mg/L				0.11%
K 766.491	35878.8	7.376	0.0400	mg/L				0.54%
Mg 279.079	359187.7	133.9	0.49	mg/L				0.36%
Mn 257.610	51288.4	0.4588	0.00006	mg/L				0.01%
Mo 202.030	-8.5	-0.0070	0.00177	mg/L				25.05%
Na 589.592	1109890.6	99.32	0.106	mg/L				0.11%
Ni 231.604	56.5	0.0143	0.00072	mg/L				5.01%
Sr 421.552	492943.0	0.6442	0.00074	mg/L				0.12%
Sn 189.933	4.0	-0.0486	0.01367	mg/L				28.13%
Ti 334.941	-62.8	-0.0004	0.00075	mg/L				188.83%
V 310.230	454.1	0.0071	0.00176	mg/L				24.86%
Zn 206.191	33389.9	7.985	0.0063	mg/L				0.08%

Mean Data

ID: R0901679-004      Seq. No.: 42      Sample No.: 20      A/S Pos: 28  
 Sample Qty: 1.0000 mL      Prep. Vol.: 50.0 mL      Dilution: 1.0: 1.0  
 Data: Original      Date: 4/6/09      6:27:02 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	473678.9	0.862	0.0330	mg/L				3.83%
Ag 328.068	-136.4	-0.0039	0.00015	mg/L				3.87%
Al 308.215	265.0	0.0844	0.00685	mg/L				8.12%
B 249.773	16817.5	1.392	0.0094	mg/L				0.67%
Ba 233.527	3601.7	0.2246	0.00507	mg/L				2.26%
Be 313.042	139.2	0.0001	0.00003	mg/L				19.97%
Ca 317.933	4854933.1	208.2	0.01	mg/L				0.01%
Co 228.616	27.1	0.0063	0.00314	mg/L				49.89%
Cr 267.716	6.5	0.0006	0.00001	mg/L				1.75%
Cu 324.754	-129.0	0.0101	0.00012	mg/L				1.22%



Fe 259.940	1298098.0	54.40	0.079 mg/L	0.15%
K 766.491	35900.3	7.380	0.0314 mg/L	0.43%
Mg 279.079	364589.8	135.9	0.05 mg/L	0.04%
Mn 257.610	51928.6	0.4646	0.00073 mg/L	0.16%
Mo 202.030	-8.5	-0.0071	0.00124 mg/L	17.51%
Na 589.592	1119645.8	100.2	0.30 mg/L	0.30%
Ni 231.604	52.0	0.0132	0.00014 mg/L	1.08%
Sr 421.552	498780.6	0.6518	0.00049 mg/L	0.08%
Sn 189.933	2.7	-0.0550	0.01269 mg/L	23.08%
Ti 334.941	-59.9	-0.0004	0.00023 mg/L	59.70%
V 310.230	468.4	0.0073	0.00091 mg/L	12.42%
Zn 206.191	35480.7	8.485	0.0056 mg/L	0.07%

Mean Data

ID: CCV      Seq. No.: 43      Sample No.: 6      A/S Pos: 3  
 Sample Qty: 1.0000 g      Prep. Vol.: 1.0 L      Dilution: 1.0: 1.0  
 Data: Original      Date: 4/6/09      6:32:42 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	504828.4	0.919	0.0235	mg/L				2.56%
Ag 328.068	17363.7	0.4997	0.00469	mg/L				0.94%
Al 308.215	31547.8	10.05	0.036	mg/L				0.36%
B 249.773	28707.2	2.376	0.0147	mg/L				0.62%
Ba 233.527	155014.1	9.667	0.0073	mg/L				0.08%
Be 313.042	274801.6	0.2543	0.00072	mg/L				0.28%
Ca 317.933	1203452.6	51.60	0.139	mg/L				0.27%
Co 228.616	10896.9	2.534	0.0242	mg/L				0.95%
Cr 267.716	5896.1	0.5182	0.00633	mg/L				1.22%
Cu 324.754	62630.0	1.235	0.0005	mg/L				0.04%
Fe 259.940	120907.4	5.067	0.0107	mg/L				0.21%
K 766.491	235877.2	48.49	0.104	mg/L				0.21%
Mg 279.079	134533.9	50.15	0.208	mg/L				0.42%
Mn 257.610	84188.4	0.7531	0.00070	mg/L				0.09%
Mo 202.030	3026.7	2.515	0.0232	mg/L				0.92%
Na 589.592	553040.6	49.49	0.043	mg/L				0.09%
Ni 231.604	8038.4	2.034	0.0270	mg/L				1.32%
Sr 421.552	1922636.1	2.513	0.0025	mg/L				0.10%
Sn 189.933	1258.0	5.000	0.0659	mg/L				1.32%
Ti 334.941	386937.2	2.457	0.0024	mg/L				0.10%
V 310.230	160844.7	2.510	0.0008	mg/L				0.03%
Zn 206.191	4263.7	1.020	0.0128	mg/L				1.25%

Mean Data

ID: CCB      Seq. No.: 44      Sample No.: 7      A/S Pos: 1  
 Sample Qty: 1.0000 g      Prep. Vol.: 1.0 L      Dilution: 1.0: 1.0  
 Data: Original      Date: 4/6/09      6:38:14 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	498663.1	0.908	0.0617	mg/L				6.79%
Ag 328.068	8.0	0.0002	0.00048	mg/L				211.48%
Al 308.215	-14.1	-0.0045	0.00714	mg/L				158.63%
B 249.773	313.3	0.0259	0.00392	mg/L				15.11%
Ba 233.527	11.9	0.0007	0.00003	mg/L				3.83%
Be 313.042	132.4	0.0001	0.00011	mg/L				86.42%
Ca 317.933	217.0	0.0093	0.00283	mg/L				30.37%
Co 228.616	-1.0	-0.0002	0.00012	mg/L				51.57%
Cr 267.716	14.7	0.0013	0.00151	mg/L				117.45%
Cu 324.754	8.9	0.0002	0.00095	mg/L				540.94%
Fe 259.940	16.6	0.0007	0.00059	mg/L				84.89%
K 766.491	-67.1	-0.0138	0.00182	mg/L				13.16%
Mg 279.079	0.4	0.0002	0.01550	mg/L				>999.9%
Mn 257.610	7.7	0.0001	0.00006	mg/L				83.15%
Mo 202.030	-0.7	-0.0006	0.00009	mg/L				15.84%
Na 589.592	307.6	0.0275	0.00986	mg/L				35.82%
Ni 231.604	3.2	0.0008	0.00022	mg/L				26.84%
Sr 421.552	758.3	0.0010	0.00024	mg/L				23.78%
Sn 189.933	-2.1	-0.0083	0.00171	mg/L				20.56%
Ti 334.941	60.3	0.0004	0.00051	mg/L				133.68%
V 310.230	352.7	0.0055	0.00390	mg/L				70.87%
Zn 206.191	4.9	0.0012	0.00084	mg/L				71.86%

Mean Data

ID: R0901679-005 Seq. No.: 45 Sample No.: 21 A/S Pos: 29
Sample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 1.0
Date: 4/6/09 6:43:48 PM

Table with columns: Element, Mean Corr. Intensity, Mean Conc., Std.Dev., Calib Units, Mean Conc., Std.Dev., Sample Units, RSD. Lists elements Y through Zn with their respective values.

Mean Data

ID: R0901679-006 Seq. No.: 46 Sample No.: 22 A/S Pos: 30
Sample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 1.0
Date: 4/6/09 6:49:28 PM

Table with columns: Element, Mean Corr. Intensity, Mean Conc., Std.Dev., Calib Units, Mean Conc., Std.Dev., Sample Units, RSD. Lists elements Y through Zn with their respective values.

Mean Data

ID: R0901679-007 Seq. No.: 47 Sample No.: 23 A/S Pos: 31
Sample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 1.0
Date: 4/6/09 6:55:10 PM

Table with columns: Element, Mean Corr. Intensity, Mean Conc., Std.Dev., Calib Units, Mean Conc., Std.Dev., Sample Units, RSD. Lists elements Y through Be with their respective values.

Element	Mean	Corr.	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	RSD
Ca 317.933	2499829.9	107.2	0.52	0.00125	mg/L	0.48%	
Co 228.616	5.3	0.0012	0.00125	0.00111	mg/L	102.64%	
Cr 267.716	30.4	0.0027	0.00111	0.00036	mg/L	41.59%	
Cu 324.754	-36.0	-0.0007	0.00036	0.016	mg/L	51.38%	
Fe 259.940	620819.5	26.02	0.016	0.044	mg/L	0.06%	
K 766.491	63909.0	13.14	0.044	0.149	mg/L	0.33%	
Mg 279.079	179441.2	66.89	0.149	0.00085	mg/L	0.22%	
Mn 257.610	18302.6	0.1637	0.00085	0.00079	mg/L	0.52%	
Mo 202.030	-0.2	-0.0002	0.00079	0.132	mg/L	386.77%	
Na 589.592	459090.9	41.08	0.132	0.00128	mg/L	0.32%	
Ni 231.604	10.2	0.0026	0.00128	0.00191	mg/L	49.41%	
Sr 421.552	470673.1	0.6151	0.00191	0.00158	mg/L	0.31%	
Sn 189.933	4.2	0.0168	0.00158	0.00068	mg/L	9.43%	
Ti 334.941	146.6	0.0009	0.00068	0.00047	mg/L	72.62%	
V 310.230	567.3	0.0089	0.00047	0.0009	mg/L	5.29%	
Zn 206.191	28659.1	6.854	0.0009		mg/L	0.01%	

Mean Data

ID: R0901679-008      Seq. No.: 48      Sample No.: 24      A/S Pos: 32  
 Sample Qty: 1.0000 mL      Prep. Vol.: 50.0 mL      Dilution: 1.0: 1.0  
 Data: Original      Date: 4/6/09      7:00:50 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev. Units	RSD
Y 371.030	461639.4	0.840	0.0445	mg/L	5.29%		
Ag 328.068	96.4	0.0028	0.00005	mg/L	1.68%		
Al 308.215	929.8	0.2962	0.01109	mg/L	3.74%		
B 249.773	438.7	0.0363	0.00277	mg/L	7.62%		
Ba 233.527	455.6	0.0284	0.00114	mg/L	4.02%		
Be 313.042	163.6	0.0002	0.00002	mg/L	14.68%		
Ca 317.933	2025933.3	86.87	0.341	mg/L	0.39%		
Co 228.616	-0.9	-0.0002	0.00065	mg/L	327.92%		
Cr 267.716	45.9	0.0040	0.00070	mg/L	17.43%		
Cu 324.754	189.9	0.0037	0.00169	mg/L	45.11%		
Fe 259.940	55536.3	2.327	0.0307	mg/L	1.32%		
K 766.491	7213.0	1.483	0.0472	mg/L	3.18%		
Mg 279.079	87409.6	32.58	0.419	mg/L	1.29%		
Mn 257.610	1303.8	0.0117	0.00050	mg/L	4.31%		
Mo 202.030	-1.5	-0.0013	0.00208	mg/L	164.83%		
Na 589.592	62252.9	5.571	0.0062	mg/L	0.11%		
Ni 231.604	3.8	0.0010	0.00089	mg/L	93.41%		
Sr 421.552	221214.4	0.2891	0.0028	mg/L	0.10%		
Sn 189.933	-0.3	-0.0012	0.00297	mg/L	242.69%		
Ti 334.941	937.9	0.0060	0.00025	mg/L	4.16%		
V 310.230	463.3	0.0072	0.00319	mg/L	44.17%		
Zn 206.191	8427.3	2.015	0.0087	mg/L	0.43%		

Mean Data

ID: R0901679-010      Seq. No.: 49      Sample No.: 25      A/S Pos: 33  
 Sample Qty: 1.0000 mL      Prep. Vol.: 50.0 mL      Dilution: 1.0: 1.0  
 Data: Original      Date: 4/6/09      7:06:31 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev. Units	RSD
Y 371.030	461714.6	0.840	0.0277	mg/L	3.30%		
Ag 328.068	64.6	0.0019	0.00132	mg/L	71.03%		
Al 308.215	19.7	0.0063	0.00386	mg/L	61.63%		
B 249.773	2530.2	0.2095	0.00333	mg/L	1.59%		
Ba 233.527	1597.1	0.0996	0.00184	mg/L	1.84%		
Be 313.042	160.8	0.0001	0.00002	mg/L	10.83%		
Ca 317.933	3928397.4	168.4	2.28	mg/L	1.35%		
Co 228.616	4.8	0.0011	0.00089	mg/L	79.52%		
Cr 267.716	3.3	0.0003	0.00005	mg/L	17.93%		
Cu 324.754	116.0	0.0023	0.00036	mg/L	15.57%		
Fe 259.940	5592.4	0.2344	0.00062	mg/L	0.26%		
K 766.491	27362.3	5.625	0.0200	mg/L	0.36%		
Mg 279.079	170763.7	63.65	0.238	mg/L	0.37%		
Mn 257.610	20460.8	0.1830	0.00032	mg/L	0.17%		
Mo 202.030	7.5	0.0063	0.00263	mg/L	42.04%		
Na 589.592	1247023.4	111.6	1.40	mg/L	1.25%		
Ni 231.604	10.8	0.0027	0.00154	mg/L	56.28%		
Sr 421.552	438881.0	0.5735	0.00832	mg/L	1.45%		
Sn 189.933	3.7	-0.0385	0.00160	mg/L	4.15%		

Ti 334.941	-353.5	-0.0022	0.00034 mg/L	15.12%
V 310.230	505.7	0.0079	0.00195 mg/L	24.74%
Zn 206.191	1750.3	0.4186	0.00450 mg/L	1.08%

## Mean Data

ID: R0901679-011      Seq. No.: 50      Sample No.: 26      A/S Pos: 34  
 Sample Qty: 1.0000 mL      Prep. Vol.: 50.0 mL      Dilution: 1.0: 1.0  
 Data: Original      Date: 4/6/09      7:12:14 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	407555.6	0.742	0.0416	mg/L				5.60%
Ag 328.068	80.4	0.0023	0.00015	mg/L				6.43%
Al 308.215	86.4	0.0275	0.00304	mg/L				11.04%
B 249.773	13883.9	1.149	0.0035	mg/L				0.31%
Ba 233.527	2387.9	0.1489	0.00436	mg/L				2.93%
Be 313.042	263.7	0.0002	0.00005	mg/L				22.06%
Ca 317.933	5215864.6	223.7	0.15	mg/L				0.07%
Co 228.616	11.2	0.0026	0.00002	mg/L				0.74%
Cr 267.716	24.9	0.0022	0.00045	mg/L				20.58%
Cu 324.754	253.4	0.0050	0.00077	mg/L				15.42%
Fe 259.940	1937.7	0.0812	0.00174	mg/L				2.15%
K 766.491	32741.5	6.731	0.0588	mg/L				0.87%
Mg 279.079	267870.9	99.85	0.104	mg/L				0.10%
Mn 257.610	2029.6	0.0182	0.00052	mg/L				2.85%
Mo 202.030	-5.4	-0.0045	0.00081	mg/L				18.05%
Na 589.592	2053459.2	183.8	0.01	mg/L				0.00%
Ni 231.604	3.0	0.0008	0.00017	mg/L				23.09%
Sr 421.552	1048010.3	1.370	0.0027	mg/L				0.20%
Sn 189.933	7.1	-0.0422	0.00910	mg/L				21.55%
Ti 334.941	-551.8	-0.0035	0.00034	mg/L				9.77%
V 310.230	855.2	0.0133	0.00326	mg/L				24.47%
Zn 206.191	37.3	0.0089	0.00042	mg/L				4.76%

## Mean Data

ID: R0901679-012      Seq. No.: 51      Sample No.: 27      A/S Pos: 35  
 Sample Qty: 1.0000 mL      Prep. Vol.: 50.0 mL      Dilution: 1.0: 1.0  
 Data: Original      Date: 4/6/09      7:17:59 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	441305.6	0.803	0.0269	mg/L				3.35%
Ag 328.068	90.3	0.0026	0.00063	mg/L				24.08%
Al 308.215	116.6	0.0371	0.00068	mg/L				1.84%
B 249.773	15058.7	1.247	0.0007	mg/L				0.05%
Ba 233.527	2242.3	0.1398	0.00360	mg/L				2.58%
Be 313.042	142.7	0.0001	0.00005	mg/L				36.96%
Ca 317.933	4758534.8	204.0	3.10	mg/L				1.52%
Co 228.616	11.5	0.0027	0.00134	mg/L				50.19%
Cr 267.716	-0.9	-0.0001	0.00128	mg/L				>999.9%
Cu 324.754	131.6	0.0026	0.00165	mg/L				63.73%
Fe 259.940	15933.8	0.6677	0.00142	mg/L				0.21%
K 766.491	33874.2	6.964	0.0391	mg/L				0.56%
Mg 279.079	360155.5	134.3	2.23	mg/L				1.66%
Mn 257.610	47954.8	0.4290	0.00003	mg/L				0.01%
Mo 202.030	-7.0	-0.0058	0.00025	mg/L				4.29%
Na 589.592	1153220.8	103.2	1.31	mg/L				1.27%
Ni 231.604	18.1	0.0046	0.00189	mg/L				41.19%
Sr 421.552	493675.9	0.6452	0.01030	mg/L				1.60%
Sn 189.933	2.7	-0.0533	0.00416	mg/L				7.80%
Ti 334.941	-502.9	-0.0032	0.00017	mg/L				5.28%
V 310.230	556.0	0.0087	0.00293	mg/L				33.79%
Zn 206.191	1094.7	0.2618	0.00573	mg/L				2.19%

## Mean Data

ID: R0901679-013      Seq. No.: 52      Sample No.: 28      A/S Pos: 36  
 Sample Qty: 1.0000 mL      Prep. Vol.: 50.0 mL      Dilution: 1.0: 1.0  
 Data: Original      Date: 4/6/09      7:23:43 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	420458.0	0.765	0.0196	mg/L				2.56%
Ag 328.068	44.4	0.0013	0.00200	mg/L				156.36%

Al 308.215	132.7	0.0423	0.00992 mg/L	23.48%
B 249.773	15883.5	1.315	0.0107 mg/L	0.82%
Ba 233.527	1953.1	0.1218	0.00224 mg/L	1.84%
Be 313.042	277.5	0.0003	0.00001 mg/L	3.64%
Ca 317.933	4841701.3	207.6	5.26 mg/L	2.54%
Co 228.616	10.9	0.0025	0.00135 mg/L	53.06%
Cr 267.716	-1.3	-0.0001	0.00092 mg/L	793.21%
Cu 324.754	68.8	0.0014	0.00022 mg/L	16.29%
Fe 259.940	14813.9	0.6208	0.00450 mg/L	0.73%
K 766.491	35831.1	7.366	0.0057 mg/L	0.08%
Mg 279.079	368648.3	137.4	3.72 mg/L	2.71%
Mn 257.610	49447.0	0.4424	0.00038 mg/L	0.09%
Mo 202.030	-8.7	-0.0073	0.00089 mg/L	12.25%
Na 589.592	1152836.0	103.2	2.39 mg/L	2.32%
Ni 231.604	29.9	0.0076	0.00039 mg/L	5.14%
Sr 421.552	488451.1	0.6383	0.01639 mg/L	2.57%
Sn 189.933	6.7	-0.0386	0.00134 mg/L	3.46%
Ti 334.941	-474.7	-0.0030	0.00015 mg/L	4.94%
V 310.230	717.1	0.0112	0.00219 mg/L	19.58%
Zn 206.191	2438.8	0.5832	0.00684 mg/L	1.17%

Mean Data

ID: R0901679-014      Seq. No.: 53      Sample No.: 29      A/S Pos: 37  
 Sample Qty: 1.0000 mL      Prep. Vol.: 50.0 mL      Dilution: 1.0: 1.0  
 Data: Original      Date: 4/6/09      7:29:25 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	443429.6	0.807	0.0482	mg/L				5.97%
Ag 328.068	-4.7	-0.0001	0.00325	mg/L				>999.9%
Al 308.215	57.7	0.0184	0.00530	mg/L				28.83%
B 249.773	428.3	0.0355	0.00433	mg/L				12.23%
Ba 233.527	1334.2	0.0832	0.00305	mg/L				3.67%
Be 313.042	122.8	0.0001	0.00002	mg/L				15.21%
Ca 317.933	1461084.4	62.65	0.137	mg/L				0.22%
Co 228.616	4.6	0.0011	0.00099	mg/L				93.48%
Cr 267.716	12.7	0.0011	0.00119	mg/L				106.58%
Cu 324.754	33.2	0.0007	0.00164	mg/L				250.69%
Fe 259.940	9152.6	0.3836	0.00259	mg/L				0.68%
K 766.491	9483.5	1.950	0.0183	mg/L				0.94%
Mg 279.079	75941.0	28.31	0.254	mg/L				0.90%
Mn 257.610	11777.8	0.1054	0.00046	mg/L				0.44%
Mo 202.030	-2.8	-0.0023	0.00197	mg/L				85.12%
Na 589.592	44018.5	3.939	0.0370	mg/L				0.94%
Ni 231.604	5.5	0.0014	0.00063	mg/L				45.34%
Sr 421.552	169190.6	0.2211	0.00024	mg/L				0.11%
Sn 189.933	0.1	0.0005	0.00395	mg/L				778.71%
Ti 334.941	-116.1	-0.0007	0.00054	mg/L				73.67%
V 310.230	460.7	0.0072	0.00135	mg/L				18.80%
Zn 206.191	23.9	0.0057	0.00072	mg/L				12.51%

Mean Data

ID: R0901679-015      Seq. No.: 54      Sample No.: 30      A/S Pos: 38  
 Sample Qty: 1.0000 mL      Prep. Vol.: 50.0 mL      Dilution: 1.0: 1.0  
 Data: Original      Date: 4/6/09      7:35:09 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	444956.3	0.810	0.0231	mg/L				2.85%
Ag 328.068	0.8	0.0000	0.00010	mg/L				430.26%
Al 308.215	68.6	0.0218	0.00878	mg/L				40.19%
B 249.773	5437.8	0.4501	0.00038	mg/L				0.09%
Ba 233.527	3653.8	0.2279	0.00146	mg/L				0.64%
Be 313.042	222.7	0.0002	0.00001	mg/L				3.02%
Ca 317.933	1903077.6	81.60	1.996	mg/L				2.45%
Co 228.616	3.5	0.0008	0.00105	mg/L				128.62%
Cr 267.716	19.2	0.0017	0.00013	mg/L				7.96%
Cu 324.754	78.4	0.0015	0.00164	mg/L				105.76%
Fe 259.940	15794.1	0.6619	0.00026	mg/L				0.04%
K 766.491	24933.7	5.126	0.0193	mg/L				0.38%
Mg 279.079	105049.7	39.16	0.110	mg/L				0.28%
Mn 257.610	7784.1	0.0696	0.00002	mg/L				0.03%
Mo 202.030	-1.6	-0.0013	0.00157	mg/L				120.69%

Na 589.592	2769777.6	247.9	5.62 mg/L	2.27%
Ni 231.604	4.9	0.0012	0.00054 mg/L	43.26%
Sr 421.552	349999.9	0.4574	0.01008 mg/L	2.20%
Sn 189.933	0.3	0.0013	0.00754 mg/L	600.81%
Ti 334.941	119.2	0.0008	0.00018 mg/L	23.13%
V 310.230	587.5	0.0092	0.00167 mg/L	18.18%
Zn 206.191	19.9	0.0048	0.00124 mg/L	26.09%

## Mean Data

ID: CCV Seq. No.: 55 Sample No.: 6 A/S Pos: 3  
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0  
Data: Original Date: 4/6/09 7:40:55 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	458379.2	0.834	0.0266	mg/L				3.19%
Ag 328.068	17299.5	0.4978	0.00116	mg/L				0.23%
Al 308.215	31628.9	10.07	0.007	mg/L				0.07%
B 249.773	27410.0	2.269	0.0534	mg/L				2.35%
Ba 233.527	154177.8	9.615	0.0215	mg/L				0.22%
Be 313.042	274260.2	0.2538	0.00005	mg/L				0.02%
Ca 317.933	1191760.5	51.10	0.587	mg/L				1.15%
Co 228.616	10713.7	2.491	0.0656	mg/L				2.64%
Cr 267.716	5896.0	0.5182	0.01522	mg/L				2.94%
Cu 324.754	62155.7	1.226	0.0011	mg/L				0.09%
Fe 259.940	120309.4	5.042	0.0008	mg/L				0.02%
K 766.491	236071.1	48.53	0.465	mg/L				0.96%
Mg 279.079	134096.5	49.99	0.084	mg/L				0.17%
Mn 257.610	84091.3	0.7523	0.00199	mg/L				0.27%
Mo 202.030	3004.1	2.496	0.0612	mg/L				2.45%
Na 589.592	546137.4	48.87	0.416	mg/L				0.85%
Ni 231.604	7985.3	2.021	0.0582	mg/L				2.88%
Sr 421.552	1903476.6	2.488	0.0313	mg/L				1.26%
Sn 189.933	1238.3	4.922	0.2172	mg/L				4.41%
Ti 334.941	383609.6	2.436	0.0017	mg/L				0.07%
V 310.230	160695.2	2.507	0.0015	mg/L				0.06%
Zn 206.191	4173.2	0.9980	0.02719	mg/L				2.72%

## Mean Data

ID: CCB Seq. No.: 56 Sample No.: 7 A/S Pos: 1  
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0  
Data: Original Date: 4/6/09 7:46:28 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	422808.0	0.770	0.0833	mg/L				10.82%
Ag 328.068	-18.9	-0.0005	0.00074	mg/L				135.42%
Al 308.215	-7.0	-0.0022	0.01199	mg/L				538.57%
B 249.773	349.9	0.0290	0.00690	mg/L				23.81%
Ba 233.527	13.7	0.0009	0.00011	mg/L				12.87%
Be 313.042	297.0	0.0003	0.00009	mg/L				31.68%
Ca 317.933	200.4	0.0086	0.00121	mg/L				14.05%
Co 228.616	2.7	0.0006	0.00095	mg/L				151.83%
Cr 267.716	20.1	0.0018	0.00029	mg/L				16.35%
Cu 324.754	86.6	0.0017	0.00269	mg/L				157.41%
Fe 259.940	25.6	0.0011	0.00030	mg/L				27.91%
K 766.491	-477.9	-0.0982	0.08551	mg/L				87.05%
Mg 279.079	1.7	0.0006	0.02245	mg/L				>999.9%
Mn 257.610	2.2	0.0000	0.00010	mg/L				522.32%
Mo 202.030	-2.8	-0.0024	0.00114	mg/L				48.28%
Na 589.592	628.8	0.0563	0.00703	mg/L				12.50%
Ni 231.604	2.8	0.0007	0.00157	mg/L				218.31%
Sr 421.552	890.0	0.0012	0.00034	mg/L				29.38%
Sn 189.933	-1.7	-0.0068	0.00392	mg/L				57.94%
Ti 334.941	42.9	0.0003	0.00023	mg/L				83.09%
V 310.230	597.5	0.0093	0.00537	mg/L				57.58%
Zn 206.191	3.6	0.0009	0.00123	mg/L				141.98%

## Mean Data

ID: R0901679-016 Seq. No.: 57 Sample No.: 31 A/S Pos: 39  
Sample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 1.0  
Data: Original Date: 4/6/09 7:52:06 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	432191.3	0.787	0.0367	mg/L				4.66%
Ag 328.068	48.7	0.0014	0.00249	mg/L				177.28%
Al 308.215	51.2	0.0163	0.00469	mg/L				28.75%
B 249.773	4900.5	0.4057	0.00904	mg/L				2.23%
Ba 233.527	4873.7	0.3039	0.00323	mg/L				1.06%
Be 313.042	160.8	0.0001	0.00009	mg/L				59.92%
Ca 317.933	2488590.8	106.7	0.25	mg/L				0.23%
Co 228.616	4.8	0.0011	0.00167	mg/L				148.48%
Cr 267.716	12.7	0.0011	0.00031	mg/L				28.10%
Cu 324.754	122.0	0.0024	0.00077	mg/L				32.17%
Fe 259.940	83743.2	3.509	0.0500	mg/L				1.42%
K 766.491	64282.5	13.22	0.006	mg/L				0.05%
Mg 279.079	177983.4	66.35	0.261	mg/L				0.39%
Mn 257.610	17026.3	0.1523	0.00236	mg/L				1.55%
Mo 202.030	2.9	0.0024	0.00259	mg/L				108.36%
Na 589.592	475911.8	42.59	0.023	mg/L				0.05%
Ni 231.604	5.4	0.0014	0.00031	mg/L				23.04%
Sr 421.552	492529.0	0.6437	0.00068	mg/L				0.11%
Sn 189.933	1.4	0.0055	0.00288	mg/L				52.04%
Ti 334.941	-241.8	-0.0015	0.00005	mg/L				3.36%
V 310.230	567.3	0.0089	0.00258	mg/L				29.18%
Zn 206.191	2901.7	0.6939	0.02372	mg/L				3.42%

Mean Data

ID: R0901679-017      Seq. No.: 58      Sample No.: 32      A/S Pos: 40  
 Sample Qty: 1.0000 mL      Prep. Vol.: 50.0 mL      Dilution: 1.0: 1.0  
 Data: Original      Date: 4/6/09      7:57:45 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	449481.6	0.818	0.0466	mg/L				5.70%
Ag 328.068	40.1	0.0012	0.00062	mg/L				53.40%
Al 308.215	5.3	0.0017	0.01211	mg/L				714.24%
B 249.773	445.6	0.0369	0.00312	mg/L				8.45%
Ba 233.527	377.6	0.0235	0.00125	mg/L				5.31%
Be 313.042	154.8	0.0001	0.00004	mg/L				25.01%
Ca 317.933	1929243.1	82.73	0.070	mg/L				0.08%
Co 228.616	-4.0	-0.0009	0.00048	mg/L				51.25%
Cr 267.716	20.6	0.0018	0.00036	mg/L				19.62%
Cu 324.754	196.4	0.0039	0.00131	mg/L				33.92%
Fe 259.940	821.2	0.0344	0.00091	mg/L				2.64%
K 766.491	6473.1	1.331	0.0067	mg/L				0.50%
Mg 279.079	84274.1	31.41	0.273	mg/L				0.87%
Mn 257.610	936.6	0.0084	0.00044	mg/L				5.25%
Mo 202.030	-4.7	-0.0039	0.00356	mg/L				90.25%
Na 589.592	59759.9	5.348	0.0051	mg/L				0.10%
Ni 231.604	3.8	0.0010	0.00134	mg/L				140.76%
Sr 421.552	210402.6	0.2750	0.00005	mg/L				0.02%
Sn 189.933	0.8	0.0033	0.00901	mg/L				269.48%
Ti 334.941	-187.6	-0.0012	0.00014	mg/L				11.98%
V 310.230	498.4	0.0078	0.00147	mg/L				18.95%
Zn 206.191	5043.7	1.206	0.0497	mg/L				4.12%

Mean Data

ID: R0901708-006      Seq. No.: 59      Sample No.: 33      A/S Pos: 41  
 Sample Qty: 1.0000 mL      Prep. Vol.: 50.0 mL      Dilution: 1.0: 1.0  
 Data: Original      Date: 4/6/09      8:03:16 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	458610.9	0.835	0.0408	mg/L				4.89%
Ag 328.068	-30.0	-0.0009	0.00077	mg/L				88.81%
Al 308.215	107.0	0.0341	0.01210	mg/L				35.52%
B 249.773	469.8	0.0389	0.00172	mg/L				4.43%
Ba 233.527	733.5	0.0457	0.00109	mg/L				2.38%
Be 313.042	140.7	0.0001	0.00001	mg/L				4.18%
Ca 317.933	200973.3	8.618	0.0201	mg/L				0.23%
Co 228.616	-0.7	-0.0002	0.00055	mg/L				323.67%
Cr 267.716	34.3	0.0030	0.00059	mg/L				19.43%
Cu 324.754	30.5	0.0006	0.00155	mg/L				257.25%
Fe 259.940	923.0	0.0387	0.00134	mg/L				3.46%

K 766.491	12426.7	2.555	0.1132 mg/L	4.43%
Mg 279.079	6658.1	2.482	0.0108 mg/L	0.44%
Mn 257.610	542.2	0.0049	0.00018 mg/L	3.74%
Mo 202.030	0.5	0.0004	0.00171 mg/L	381.34%
Na 589.592	160002.0	14.32	0.095 mg/L	0.67%
Ni 231.604	6.6	0.0017	0.00058 mg/L	34.70%
Sr 421.552	49018.4	0.0641	0.00001 mg/L	0.02%
Sn 189.933	-1.6	-0.0065	0.00032 mg/L	4.99%
Ti 334.941	97.9	0.0006	0.00002 mg/L	3.50%
V 310.230	424.8	0.0066	0.00265 mg/L	40.02%
Zn 206.191	82.0	0.0196	0.00168 mg/L	8.59%

Mean Data

ID: R0901708-007      Seq. No.: 60      Sample No.: 34      A/S Pos: 42  
 Sample Qty: 1.0000 mL      Prep. Vol.: 50.0 mL      Dilution: 1.0: 1.0  
 Data: Original      Date: 4/6/09      8:08:48 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	438471.2	0.798	0.0583	mg/L				7.31%
Ag 328.068	-12.4	-0.0004	0.00022	mg/L				62.08%
Al 308.215	221.9	0.0707	0.03168	mg/L				44.83%
B 249.773	646.8	0.0535	0.00325	mg/L				6.07%
Ba 233.527	562.4	0.0351	0.00196	mg/L				5.60%
Be 313.042	177.1	0.0002	0.00002	mg/L				13.08%
Ca 317.933	753636.7	32.32	0.027	mg/L				0.08%
Co 228.616	1.0	0.0002	0.00014	mg/L				64.45%
Cr 267.716	1169.6	0.1028	0.00478	mg/L				4.65%
Cu 324.754	169.7	0.0033	0.00136	mg/L				40.56%
Fe 259.940	1938.5	0.0812	0.00221	mg/L				2.72%
K 766.491	10712.4	2.202	0.0314	mg/L				1.43%
Mg 279.079	12461.8	4.645	0.0500	mg/L				1.08%
Mn 257.610	262.1	0.0023	0.00019	mg/L				8.17%
Mo 202.030	1.0	0.0008	0.00079	mg/L				94.78%
Na 589.592	186151.8	16.66	0.002	mg/L				0.01%
Ni 231.604	-1.2	-0.0003	0.00074	mg/L				247.28%
Sr 421.552	167018.2	0.2183	0.00021	mg/L				0.10%
Sn 189.933	0.5	0.0018	0.00373	mg/L				203.36%
Ti 334.941	148.9	0.0009	0.00014	mg/L				14.72%
V 310.230	651.3	0.0102	0.00500	mg/L				49.23%
Zn 206.191	4.8	0.0011	0.00219	mg/L				191.68%

Mean Data

ID: R0901708-008      Seq. No.: 61      Sample No.: 35      A/S Pos: 43  
 Sample Qty: 1.0000 mL      Prep. Vol.: 50.0 mL      Dilution: 1.0: 1.0  
 Data: Original      Date: 4/6/09      8:14:20 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	462793.6	0.842	0.0410	mg/L				4.86%
Ag 328.068	86.8	0.0025	0.00161	mg/L				64.63%
Al 308.215	63.5	0.0202	0.00294	mg/L				14.53%
B 249.773	366.6	0.0303	0.00134	mg/L				4.42%
Ba 233.527	719.4	0.0449	0.00115	mg/L				2.56%
Be 313.042	172.9	0.0002	0.00009	mg/L				54.17%
Ca 317.933	194745.4	8.351	0.0044	mg/L				0.05%
Co 228.616	-2.3	-0.0005	0.00025	mg/L				46.41%
Cr 267.716	15.8	0.0014	0.00103	mg/L				73.76%
Cu 324.754	98.4	0.0019	0.00014	mg/L				6.97%
Fe 259.940	307.0	0.0129	0.00076	mg/L				5.88%
K 766.491	12208.7	2.510	0.0155	mg/L				0.62%
Mg 279.079	6428.7	2.396	0.0003	mg/L				0.01%
Mn 257.610	376.0	0.0034	0.00007	mg/L				2.02%
Mo 202.030	1.2	0.0010	0.00055	mg/L				56.26%
Na 589.592	154217.7	13.80	0.055	mg/L				0.40%
Ni 231.604	3.7	0.0009	0.00139	mg/L				148.04%
Sr 421.552	47403.0	0.0619	0.00021	mg/L				0.34%
Sn 189.933	-2.1	-0.0082	0.00391	mg/L				48.00%
Ti 334.941	11.6	0.0001	0.00061	mg/L				823.00%
V 310.230	339.4	0.0053	0.00210	mg/L				39.68%
Zn 206.191	1082.3	0.2588	0.00603	mg/L				2.33%

Mean Data



ID: R0901708-009  
Sample Qty: 1.0000 mL

Seq. No.: 62 Sample No.: 36  
Prep. Vol.: 50.0 mL  
Data: Original

A/S Pos: 44  
Dilution: 1.0: 1.0  
Date: 4/6/09 8:19:53 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	453089.0	0.825	0.0574	mg/L				6.96%
Ag 328.068	4.0	0.0001	0.00091	mg/L				786.14%
Al 308.215	6.0	0.0019	0.01597	mg/L				831.84%
B 249.773	595.0	0.0493	0.00303	mg/L				6.15%
Ba 233.527	542.8	0.0339	0.00193	mg/L				5.70%
Be 313.042	173.3	0.0002	0.00006	mg/L				35.38%
Ca 317.933	722114.7	30.96	0.011	mg/L				0.04%
Co 228.616	0.7	0.0002	0.00044	mg/L				269.21%
Cr 267.716	1187.1	0.1043	0.00500	mg/L				4.79%
Cu 324.754	119.8	0.0024	0.00107	mg/L				45.22%
Fe 259.940	306.5	0.0128	0.00054	mg/L				4.19%
K 766.491	10539.1	2.167	0.0280	mg/L				1.29%
Mg 279.079	11776.0	4.390	0.0217	mg/L				0.49%
Mn 257.610	134.9	0.0012	0.00016	mg/L				13.02%
Mo 202.030	-2.0	-0.0017	0.00338	mg/L				204.54%
Na 589.592	180104.6	16.12	0.008	mg/L				0.05%
Ni 231.604	-1.2	-0.0003	0.00105	mg/L				346.27%
Sr 421.552	158704.5	0.2074	0.00019	mg/L				0.09%
Sn 189.933	0.6	0.0025	0.00605	mg/L				246.54%
Ti 334.941	-57.0	-0.0004	0.00076	mg/L				209.94%
V 310.230	581.6	0.0091	0.00273	mg/L				30.12%
Zn 206.191	26.3	0.0063	0.00019	mg/L				3.00%

Mean Data

ID: GCV  
Sample Qty: 1.0000 g

Seq. No.: 63 Sample No.: 6  
Prep. Vol.: 1.0 L  
Data: Original

A/S Pos: 3  
Dilution: 1.0: 1.0  
Date: 4/6/09 8:25:35 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	497049.8	0.905	0.0068	mg/L				0.76%
Ag 328.068	17345.6	0.4992	0.00072	mg/L				0.14%
Al 308.215	31488.5	10.03	0.043	mg/L				0.43%
B 249.773	27721.7	2.295	0.0155	mg/L				0.68%
Ba 233.527	154098.4	9.610	0.0178	mg/L				0.19%
Be 313.042	273884.5	0.2535	0.00073	mg/L				0.29%
Ca 317.933	1198399.9	51.39	0.482	mg/L				0.94%
Co 228.616	10767.0	2.504	0.0600	mg/L				2.40%
Cr 267.716	5853.3	0.5144	0.00657	mg/L				1.28%
Cu 324.754	62207.8	1.227	0.0030	mg/L				0.24%
Fe 259.940	120043.4	5.031	0.0380	mg/L				0.75%
K 766.491	235918.7	48.50	0.176	mg/L				0.36%
Mg 279.079	133771.1	49.87	0.288	mg/L				0.58%
Mn 257.610	83827.2	0.7499	0.00258	mg/L				0.34%
Mo 202.030	2999.0	2.492	0.0334	mg/L				1.34%
Na 589.592	548260.6	49.06	0.568	mg/L				1.16%
Ni 231.604	7950.9	2.012	0.0332	mg/L				1.65%
Sr 421.552	1916243.3	2.504	0.0321	mg/L				1.28%
Sn 189.933	1232.7	4.900	0.0300	mg/L				0.61%
Ti 334.941	383943.0	2.438	0.0029	mg/L				0.12%
V 310.230	161115.9	2.514	0.0017	mg/L				0.07%
Zn 206.191	4173.5	0.9981	0.01981	mg/L				1.98%

Mean Data

ID: GCB  
Sample Qty: 1.0000 g

Seq. No.: 64 Sample No.: 7  
Prep. Vol.: 1.0 L  
Data: Original

A/S Pos: 1  
Dilution: 1.0: 1.0  
Date: 4/6/09 8:31:09 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	524201.8	0.954	0.0296	mg/L				3.11%
Ag 328.068	51.7	0.0015	0.00080	mg/L				53.69%
Al 308.215	37.7	0.0120	0.00191	mg/L				15.92%
B 249.773	167.4	0.0139	0.00271	mg/L				19.53%
Ba 233.527	10.5	0.0007	0.00068	mg/L				103.29%
Be 313.042	64.1	0.0001	0.00000	mg/L				0.87%
Ca 317.933	126.4	0.0054	0.00209	mg/L				38.56%

Co 228.616	3.7	0.0009	0.00024 mg/L	27.88%
Cr 267.716	6.2	0.0005	0.00038 mg/L	69.77%
Cu 324.754	59.8	0.0012	0.00067 mg/L	56.68%
Fe 259.940	2.8	0.0001	0.00026 mg/L	218.42%
K 766.491	4.6	0.0009	0.04514 mg/L	>999.9%
Mg 279.079	38.8	0.0144	0.00096 mg/L	6.65%
Mn 257.610	8.0	0.0001	0.00011 mg/L	155.47%
Mo 202.030	0.8	0.0007	0.00006 mg/L	8.23%
Na 589.592	180.6	0.0162	0.01062 mg/L	65.67%
Ni 231.604	-4.3	-0.0011	0.00112 mg/L	103.85%
Sr 421.552	241.4	0.0003	0.00006 mg/L	18.45%
Sn 189.933	0.1	0.0004	0.01030 mg/L	>999.9%
Ti 334.941	26.2	0.0002	0.00000 mg/L	0.52%
V 310.230	171.0	0.0027	0.00032 mg/L	11.98%
Zn 206.191	4.8	0.0012	0.00066 mg/L	56.82%

Mean Data

ID: MRL  
 Sample Qty: 1.0000 g  
 Seq. No.: 65  
 Prep. Vol.: 1.0 L  
 Data: Original  
 Sample No.: 3  
 Dilution: 1.0: 1.0  
 Date: 4/6/09  
 8:36:42 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	603183.8	1.098	0.0335	mg/L				3.06%
Ag 328.068	362.6	0.0104	0.00014	mg/L				1.37%
Al 308.215	645.4	0.2056	0.01717	mg/L				8.35%
B 249.773	2272.4	0.1881	0.00402	mg/L				2.14%
Ba 233.527	3300.6	0.2058	0.00522	mg/L				2.53%
Be 313.042	5300.2	0.0049	0.00002	mg/L				0.44%
Ca 317.933	23971.3	1.028	0.0007	mg/L				0.07%
Co 228.616	223.9	0.0521	0.00003	mg/L				0.06%
Cr 267.716	110.9	0.0097	0.00037	mg/L				3.78%
Cu 324.754	1285.8	0.0254	0.00155	mg/L				6.12%
Fe 259.940	2386.1	0.1000	0.00016	mg/L				0.16%
K 766.491	4886.4	1.005	0.0404	mg/L				4.02%
Mg 279.079	2714.7	1.012	0.0083	mg/L				0.82%
Mn 257.610	1680.8	0.0150	0.00028	mg/L				1.89%
Mo 202.030	28.6	0.0237	0.00004	mg/L				0.17%
Na 589.592	11311.2	1.012	0.0043	mg/L				0.42%
Ni 231.604	163.2	0.0413	0.00009	mg/L				0.21%
Sr 421.552	76943.4	0.1006	0.00003	mg/L				0.03%
Sn 189.933	123.5	0.4911	0.00748	mg/L				1.52%
Ti 334.941	7683.9	0.0488	0.00036	mg/L				0.74%
V 310.230	3108.4	0.0485	0.00039	mg/L				0.81%
Zn 206.191	87.5	0.0209	0.00074	mg/L				3.54%

Mean Data

ID: ICSA  
 Sample Qty: 1.0000 g  
 Seq. No.: 66  
 Prep. Vol.: 1.0 L  
 Data: Original  
 Sample No.: 4  
 Dilution: 1.0: 1.0  
 Date: 4/6/09  
 8:42:29 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	537552.6	0.978	0.0189	mg/L				1.94%
Ag 328.068	-615.9	-0.0021	0.00105	mg/L				49.51%
Al 308.215	1569571.2	499.9	2.42	mg/L				0.48%
B 249.773	1651.3	-0.0918	0.00283	mg/L				3.09%
Ba 233.527	112.6	0.0070	0.00023	mg/L				3.29%
Be 313.042	112.4	0.0001	0.00002	mg/L				15.06%
Ca 317.933	11518954.7	493.9	8.41	mg/L				1.70%
Co 228.616	2.7	0.0006	0.00070	mg/L				109.99%
Cr 267.716	-111.3	-0.0034	0.00051	mg/L				15.10%
Cu 324.754	-1738.7	0.0095	0.00055	mg/L				5.77%
Fe 259.940	4501193.6	188.6	0.64	mg/L				0.34%
K 766.491	-12.0	-0.0025	0.01410	mg/L				572.99%
Mg 279.079	1362609.6	507.9	2.24	mg/L				0.44%
Mn 257.610	2368.5	0.0038	0.00067	mg/L				17.43%
Mo 202.030	-16.5	-0.0137	0.00103	mg/L				7.53%
Na 589.592	48.6	0.0043	0.01020	mg/L				234.75%
Ni 231.604	4.8	0.0012	0.00243	mg/L				202.42%
Sr 421.552	3582.3	-0.0963	0.00158	mg/L				1.64%
Sn 189.933	15.1	-0.0953	0.01407	mg/L				14.76%
Ti 334.941	-145.3	-0.0009	0.00003	mg/L				3.19%

V 310.230	333.8	0.0052	0.00121 mg/L	23.27%
Zn 206.191	28.8	-0.0037	0.00157 mg/L	41.97%

Mean Data  
 ID: ICSAB  
 Sample Qty: 1.0000 g  
 Seq. No.: 67  
 Prep. Vol.: 1.0 L  
 Data: Original  
 Sample No.: 5  
 Dilution: 1.0:  
 Date: 4/6/09 8:48:28 PM  
 A/S Pos: 8  
 1.0

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	531923.2	0.968	0.0002	mg/L				0.02%
Ag 328.068	35232.1	1.030	0.0012	mg/L				0.12%
Al 308.215	1587007.5	505.5	7.73	mg/L				1.53%
B 249.773	1637.2	-0.0948	0.00343	mg/L				3.62%
Ba 233.527	7868.1	0.4907	0.00390	mg/L				0.79%
Be 313.042	531347.5	0.4918	0.00160	mg/L				0.32%
Ca 317.933	11667405.2	500.3	13.64	mg/L				2.73%
Co 228.616	2107.3	0.4900	0.00213	mg/L				0.43%
Cr 267.716	5544.2	0.4937	0.00416	mg/L				0.84%
Cu 324.754	22867.6	0.4952	0.00101	mg/L				0.20%
Fe 259.940	4537694.7	190.2	2.71	mg/L				1.42%
K 766.491	24.4	0.0050	0.00373	mg/L				74.38%
Mg 279.079	1373817.4	512.1	7.45	mg/L				1.45%
Mn 257.610	56615.8	0.4890	0.00087	mg/L				0.18%
Mo 202.030	-17.4	-0.0144	0.00090	mg/L				6.24%
Na 589.592	43.9	0.0039	0.00390	mg/L				99.28%
Ni 231.604	3742.6	0.9472	0.00786	mg/L				0.83%
Sr 421.552	3637.3	-0.0975	0.00267	mg/L				2.74%
Sn 189.933	13.0	-0.1058	0.00283	mg/L				2.67%
Ti 334.941	-124.6	-0.0008	0.00008	mg/L				9.82%
V 310.230	32110.2	0.5010	0.00037	mg/L				0.07%
Zn 206.191	4033.2	0.9538	0.00515	mg/L				0.54%

Mean Data  
 ID: CCV  
 Sample Qty: 1.0000 g  
 Seq. No.: 68  
 Prep. Vol.: 1.0 L  
 Data: Original  
 Sample No.: 6  
 Dilution: 1.0:  
 Date: 4/6/09 8:54:20 PM  
 A/S Pos: 3  
 1.0

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	541211.3	0.985	0.0347	mg/L				3.52%
Ag 328.068	17745.1	0.5107	0.00235	mg/L				0.46%
Al 308.215	31484.0	10.03	0.014	mg/L				0.14%
B 249.773	29745.3	2.462	0.0017	mg/L				0.07%
Ba 233.527	156676.6	9.770	0.0342	mg/L				0.35%
Be 313.042	276836.6	0.2562	0.00016	mg/L				0.06%
Ca 317.933	1211808.9	51.96	0.155	mg/L				0.30%
Co 228.616	11126.8	2.587	0.0733	mg/L				2.83%
Cr 267.716	6000.6	0.5274	0.01403	mg/L				2.66%
Cu 324.754	63811.1	1.259	0.0012	mg/L				0.10%
Fe 259.940	121597.1	5.096	0.0190	mg/L				0.37%
K 766.491	243163.9	49.99	0.457	mg/L				0.92%
Mg 279.079	135622.2	50.56	0.249	mg/L				0.49%
Mn 257.610	84954.5	0.7600	0.00325	mg/L				0.43%
Mo 202.030	3087.7	2.565	0.0515	mg/L				2.01%
Na 589.592	558476.9	49.98	0.061	mg/L				0.12%
Ni 231.604	8229.8	2.083	0.0620	mg/L				2.97%
Sr 421.552	1935862.5	2.530	0.0089	mg/L				0.35%
Sn 189.933	1282.0	5.096	0.1363	mg/L				2.68%
Ti 334.941	386680.5	2.455	0.0015	mg/L				0.06%
V 310.230	162544.1	2.536	0.0026	mg/L				0.10%
Zn 206.191	4348.9	1.040	0.0291	mg/L				2.80%

Mean Data  
 ID: CCB  
 Sample Qty: 1.0000 g  
 Seq. No.: 69  
 Prep. Vol.: 1.0 L  
 Data: Original  
 Sample No.: 7  
 Dilution: 1.0:  
 Date: 4/6/09 8:59:55 PM  
 A/S Pos: 1  
 1.0

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	543091.6	0.988	0.0509	mg/L				5.15%
Ag 328.068	38.1	0.0011	0.00214	mg/L				194.80%
Al 308.215	28.2	0.0090	0.00891	mg/L				99.11%

B 249.773	121.2	0.0100	0.00184 mg/L	18.31%
Ba 233.527	12.1	0.0008	0.00016 mg/L	21.50%
Be 313.042	90.8	0.0001	0.00011 mg/L	125.05%
Ca 317.933	161.7	0.0069	0.00433 mg/L	62.41%
Co 228.616	0.6	0.0001	0.00122 mg/L	835.92%
Cr 267.716	5.9	0.0005	0.00021 mg/L	40.08%
Cu 324.754	-33.5	-0.0007	0.00067 mg/L	101.14%
Fe 259.940	27.4	0.0011	0.00032 mg/L	27.75%
K 766.491	-83.0	-0.0171	0.02298 mg/L	134.74%
Mg 279.079	50.4	0.0188	0.00416 mg/L	22.14%
Mn 257.610	11.5	0.0001	0.00004 mg/L	43.12%
Mo 202.030	-0.7	-0.0006	0.00119 mg/L	210.73%
Na 589.592	72.0	0.0064	0.00842 mg/L	130.64%
Ni 231.604	4.9	0.0012	0.00009 mg/L	6.89%
Sr 421.552	120.8	0.0002	0.00017 mg/L	106.78%
Sn 189.933	0.3	0.0012	0.00822 mg/L	701.13%
Ti 334.941	7.5	0.0000	0.00033 mg/L	698.31%
V 310.230	107.8	0.0017	0.00163 mg/L	96.91%
Zn 206.191	1.0	0.0002	0.00053 mg/L	221.89%

ed:

# Metals Cover Page

Analyst: DCB

Date: 4/8/09

Instrument: #1

Data File: ap08a

Reviewed By: CK4/8/09

Entered By: CK4/8/09

Approval: SD 4/8/09

Starlims Run #	Analytes Used	Batch ID	Method	Failed Analytes	Comments/ Problems
149273	KNa	85125	200.7		
149275	Zn	84988	6010B		

## Package Data:

Client Sub#	Package	Analytes Used	Failed Metals	Batch ID	Stds Attached?	Tranferred To LIMS	Raw Data Copied?
✓ R1679	5 / ASP	Zn		84988	Yes / No	MARRS / Run above	Yes / No
	5 / ASP				Yes / No	MARRS / Run above	Yes / No
	5 / ASP				Yes / No	MARRS / Run above	Yes / No
	5 / ASP				Yes / No	MARRS / Run above	Yes / No
	5 / ASP				Yes / No	MARRS / Run above	Yes / No
	5 / ASP				Yes / No	MARRS / Run above	Yes / No
	5 / ASP				Yes / No	MARRS / Run above	Yes / No
	5 / ASP				Yes / No	MARRS / Run above	Yes / No
	5 / ASP				Yes / No	MARRS / Run above	Yes / No

Calibration Summary

Method: Radial 200.7/6010b

Date: 4/8/09

9:35:07 AM

Element	Stds	Equation	Intercept	Slope	Curvature	Corr. Coeff.
Method: Radial 200.7/6010b			IEC: 032709.iec		MSF:	
Results: Apr08a			Spectra Stored: Yes		Method Stored: Yes	
Sample Info: 2007			User: User1		Date: 4/8/09	
Method Description: Radial 200.7/6010b 8/08						

Mean Data

ID: IS Init

Seq. No.: 1

Data: Original

A/S Pos: 1

Date: 4/8/09

9:36:44 AM

Element	Mean Corr. Intensity	Std.Dev.	RSD
Y 371.030	497539.4	11708.92	2.35%

Mean Data

ID: Calib Blank 1

Seq. No.: 2

Data: Original

A/S Pos: 1

Date: 4/8/09

9:37:27 AM

Element	Mean Corr. Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.030	543539.8	2016.89	0.37%	1.092	mg/L
Ag 328.068	83.9	16.88	20.11%	0	mg/L
Al 308.215	-20.5	41.66	202.78%	0	mg/L
B 249.773	227.0	5.06	2.23%	0	mg/L
Ba 233.527	15.7	6.95	44.34%	0	mg/L
Be 313.042	103.3	39.29	38.03%	0	mg/L
Ca 317.933	1032.8	21.64	2.10%	0	mg/L
Co 228.616	-1.8	1.16	63.98%	0	mg/L
Cr 267.716	58.3	5.53	9.48%	0	mg/L
Cu 324.754	193.0	14.01	7.26%	0	mg/L
Fe 259.940	3.5	1.13	32.82%	0	mg/L
K 766.491	-500.6	39.32	7.86%	0	mg/L
Mg 279.079	-128.4	21.61	16.84%	0	mg/L
Mn 257.610	15.0	0.67	4.46%	0	mg/L
Mo 202.030	3.1	1.20	38.81%	0	mg/L
Na 589.592	195.7	77.56	39.63%	0	mg/L
Ni 231.604	4.9	2.40	49.30%	0	mg/L
Sr 421.552	1264.3	50.57	4.00%	0	mg/L
Sn 189.933	-2.0	0.46	22.71%	0	mg/L
Ti 334.941	32.5	26.40	81.31%	0	mg/L
V 310.230	2495.7	72.93	2.92%	0	mg/L
Zn 206.191	3.1	1.16	37.61%	0	mg/L

*Analyst  
S Bond*

Mean Data

ID: Calib Std 1

Seq. No.: 3

Data: Original

A/S Pos: 100

Date: 4/8/09

9:42:57 AM

Element	Mean Corr. Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.030	489684.9	31852.02	6.50%	0.984	mg/L
Ag 328.068	350.8	57.14	16.29%	0.0100	mg/L
B 249.773	2295.2	83.84	3.65%	0.2000	mg/L
Be 313.042	5859.0	56.02	0.96%	0.00500	mg/L
Co 228.616	267.7	5.72	2.14%	0.0500	mg/L
Cr 267.716	115.0	13.86	12.05%	0.0100	mg/L
Fe 259.940	2153.9	7.62	0.35%	0.1000	mg/L
Mo 202.030	32.6	0.18	0.57%	0.0250	mg/L
Ni 231.604	159.3	7.40	4.65%	0.0400	mg/L
Sr 421.552	72100.2	58.14	0.08%	0.1000	mg/L
Sn 189.933	120.6	4.67	3.87%	0.5000	mg/L
Ti 334.941	6824.1	48.67	0.71%	0.0500	mg/L
V 310.230	3322.1	169.22	5.09%	0.0500	mg/L
Zn 206.191	94.4	6.66	7.06%	0.0200	mg/L

Mean Data

ID: Calib Std 2

Seq. No.: 4  
Data: Original

A/S Pos: 101  
Date: 4/8/09

9:48:30 AM

Element	Mean Corr. Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.030	495404.7	38808.04	7.83%	0.996	mg/L
Al 308.215	280.9	26.02	9.26%	0.1000	mg/L
Ba 233.527	289.9	15.43	5.32%	0.0200	mg/L
Ca 317.933	12031.1	612.47	5.09%	0.5000	mg/L
Cu 324.754	1160.7	62.67	5.40%	0.0200	mg/L
K 766.491	8455.4	63.44	0.75%	2.000	mg/L
Mg 279.079	1318.8	41.62	3.16%	0.5000	mg/L
Mn 257.610	1084.1	51.92	4.79%	0.0100	mg/L
Na 589.592	5196.7	67.16	1.29%	0.5000	mg/L

Mean Data

ID: Calib Std 3

Seq. No.: 5  
Data: Original

A/S Pos: 102  
Date: 4/8/09

9:54:06 AM

Element	Mean Corr. Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.030	498577.1	22843.44	4.58%	1.002	mg/L
Ag 328.068	7351.6	96.11	1.31%	0.2000	mg/L
Al 308.215	10604.2	8.07	0.08%	4.000	mg/L
B 249.773	11283.3	18.97	0.17%	1.000	mg/L
Ba 233.527	58462.5	202.03	0.35%	4.000	mg/L
Be 313.042	116075.1	221.14	0.19%	0.1000	mg/L
Ca 317.933	458722.2	2079.85	0.45%	20.000	mg/L
Co 228.616	5196.2	197.86	3.81%	1.000	mg/L
Cr 267.716	2155.4	63.41	2.94%	0.2000	mg/L
Cu 324.754	25993.4	92.79	0.36%	0.5000	mg/L
Fe 259.940	42414.4	38.86	0.09%	2.000	mg/L
K 766.491	87684.8	843.74	0.96%	20.000	mg/L
Mg 279.079	50566.3	34.97	0.07%	20.000	mg/L
Mn 257.610	30591.0	35.61	0.12%	0.3000	mg/L
Mo 202.030	1263.6	29.16	2.31%	1.000	mg/L
Na 589.592	205457.4	433.80	0.21%	20.000	mg/L
Ni 231.604	3107.2	88.25	2.84%	0.8000	mg/L
Sr 421.552	711860.0	3821.20	0.54%	1.000	mg/L
Sn 189.933	478.8	15.99	3.34%	2.000	mg/L
Ti 334.941	134851.9	32.98	0.02%	1.000	mg/L
V 310.230	61978.9	244.17	0.39%	1.000	mg/L
Zn 206.191	1848.5	68.83	3.72%	0.4000	mg/L

Mean Data

ID: Calib Std 4

Seq. No.: 6  
Data: Original

A/S Pos: 2  
Date: 4/8/09

9:59:48 AM

Element	Mean Corr. Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.030	495499.3	12318.11	2.49%	0.996	mg/L
Ag 328.068	36159.8	50.22	0.14%	1.000	mg/L
Al 308.215	52163.7	10.04	0.02%	20.000	mg/L
B 249.773	57845.3	443.31	0.77%	5.000	mg/L
Ba 233.527	284724.8	435.30	0.15%	20.000	mg/L
Be 313.042	572047.9	2332.34	0.41%	0.5000	mg/L
Ca 317.933	2247383.5	8463.97	0.38%	100.00	mg/L
Co 228.616	25088.7	342.16	1.36%	5.000	mg/L
Cr 267.716	10499.1	190.88	1.82%	1.000	mg/L
Cu 324.754	126951.3	142.92	0.11%	2.500	mg/L
Fe 259.940	207565.7	43.70	0.02%	10.000	mg/L
K 766.491	434262.3	1866.30	0.43%	100.00	mg/L
Mg 279.079	248812.4	5.40	0.00%	100.00	mg/L
Mn 257.610	149571.1	367.06	0.25%	1.500	mg/L
Mo 202.030	6236.4	74.39	1.19%	5.000	mg/L
Na 589.592	1018341.9	1743.38	0.17%	100.00	mg/L
Ni 231.604	14918.7	264.57	1.77%	4.000	mg/L
Sr 421.552	3517258.3	6880.92	0.20%	5.000	mg/L
Sn 189.933	2315.7	30.13	1.30%	10.000	mg/L
Ti 334.941	673879.9	2908.79	0.43%	5.000	mg/L
V 310.230	306319.4	224.90	0.07%	5.000	mg/L
Zn 206.191	8847.3	138.22	1.56%	2.000	mg/L

Calibration Summary

Method: Radial 200.7/6010b

Date: 4/8/09

10:00:27 AM

Element	Stds	Equation	Intercept	Slope	Curvature	Corr. Coeff.
Ag 328.068	3	Linear-thru-Zero	0.0	36182.7	0.00000	0.999990
Al 308.215	3	Linear-thru-Zero	0.0	2609.8	0.00000	0.999991
B 249.773	3	Linear-thru-Zero	0.0	11557.9	0.00000	0.999978
Ba 233.527	3	Linear-thru-Zero	0.0	14250.8	0.00000	0.999976
Be 313.042	3	Linear-thru-Zero	0.0	1144739.0	0.00000	0.999993
Ca 317.933	3	Linear-thru-Zero	0.0	22491.7	0.00000	0.999985
Co 228.616	3	Linear-thru-Zero	0.0	5024.6	0.00000	0.999956
Cr 267.716	3	Linear-thru-Zero	0.0	10509.9	0.00000	0.999975
Cu 324.754	3	Linear-thru-Zero	0.0	50827.4	0.00000	0.999979
Fe 259.940	3	Linear-thru-Zero	0.0	20774.0	0.00000	0.999983
K 766.491	3	Linear-thru-Zero	0.0	4344.2	0.00000	0.999996
Mg 279.079	3	Linear-thru-Zero	0.0	2489.7	0.00000	0.999991
Mn 257.610	3	Linear-thru-Zero	0.0	99801.2	0.00000	0.999982
Mo 202.030	3	Linear-thru-Zero	0.0	1247.9	0.00000	0.999994
Na 589.592	3	Linear-thru-Zero	0.0	10186.9	0.00000	0.999997
Ni 231.604	3	Linear-thru-Zero	0.0	3735.6	0.00000	0.999940
Sr 421.552	3	Linear-thru-Zero	0.0	703781.7	0.00000	0.999995
Sn 189.933	3	Linear-thru-Zero	0.0	231.9	0.00000	0.999954
Ti 334.941	3	Linear-thru-Zero	0.0	134779.1	0.00000	1.000000
V 310.230	3	Linear-thru-Zero	0.0	61291.9	0.00000	0.999995
Zn 206.191	3	Linear-thru-Zero	0.0	4431.3	0.00000	0.999930

Mean Data

ID: ICV

Sample Qty: 1.0000 g

Seq. No.: 7

Prep. Vol.: Data: Original

Sample No.: 1

1.0 L

A/S Pos: 3

Dilution:

1.0:

1.0

Date: 4/8/09

10:05:29 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	510398.0	1.026	0.0595	mg/L				5.80%
Ag 328.068	18395.9	0.5084	0.00391	mg/L				0.77%
Al 308.215	25697.6	9.846	0.0018	mg/L				0.02%
B 249.773	28564.4	2.471	0.0013	mg/L				0.05%
Ba 233.527	136988.5	9.613	0.0259	mg/L				0.27%
Be 313.042	288441.1	0.2520	0.00019	mg/L				0.08%
Ca 317.933	1146949.3	50.99	0.100	mg/L				0.20%
Co 228.616	12683.2	2.524	0.1014	mg/L				4.02%
Cr 267.716	5447.2	0.5183	0.02248	mg/L				4.34%
Cu 324.754	63591.0	1.251	0.0006	mg/L				0.05%
Fe 259.940	104672.8	5.039	0.0138	mg/L				0.27%
K 766.491	214359.1	49.34	0.422	mg/L				0.85%
Mg 279.079	123563.8	49.63	0.121	mg/L				0.24%
Mn 257.610	75214.5	0.7536	0.00116	mg/L				0.15%
Mo 202.030	3116.1	2.497	0.0932	mg/L				3.73%
Na 589.592	508587.9	49.93	0.278	mg/L				0.56%
Ni 231.604	7698.4	2.061	0.0902	mg/L				4.38%
Sr 421.552	1745989.5	2.481	0.0028	mg/L				0.11%
Sn 189.933	1164.0	5.020	0.2545	mg/L				5.07%
Ti 334.941	326356.7	2.421	0.0039	mg/L				0.16%
V 310.230	152115.5	2.482	0.0024	mg/L				0.09%
Zn 206.191	4572.3	1.032	0.0452	mg/L				4.38%

Mean Data

ID: ICB

Sample Qty: 1.0000 g

Seq. No.: 8

Prep. Vol.: Data: Original

Sample No.: 2

1.0 L

A/S Pos: 1

Dilution:

1.0:

1.0

Date: 4/8/09

10:11:01 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	525137.9	1.055	0.0942	mg/L				8.92%
Ag 328.068	12.3	0.0003	0.00346	mg/L				>999.9%
Al 308.215	37.3	0.0143	0.01015	mg/L				70.96%
B 249.773	363.4	0.0314	0.00619	mg/L				19.69%
Ba 233.527	4.3	0.0003	0.00047	mg/L				155.95%
Be 313.042	47.5	0.0000	0.00003	mg/L				82.14%
Ca 317.933	97.7	0.0043	0.00433	mg/L				99.82%
Co 228.616	-3.2	-0.0006	0.00018	mg/L				28.29%



Cr 267.716	0.6	0.0001	0.00121 mg/L	>999.9%
Cu 324.754	47.5	0.0009	0.00017 mg/L	17.84%
Fe 259.940	1.9	0.0001	0.00044 mg/L	472.40%
K 766.491	-151.9	-0.0350	0.02251 mg/L	64.38%
Mg 279.079	9.4	0.0038	0.00511 mg/L	135.60%
Mn 257.610	8.2	0.0001	0.00007 mg/L	80.73%
Mo 202.030	-1.3	-0.0011	0.00023 mg/L	21.43%
Na 589.592	-3.9	-0.0004	0.00508 mg/L	>999.9%
Ni 231.604	2.3	0.0006	0.00002 mg/L	3.27%
Sr 421.552	515.4	0.0007	0.00034 mg/L	46.54%
Sn 189.933	0.5	0.0023	0.00302 mg/L	130.97%
Ti 334.941	59.9	0.0004	0.00002 mg/L	5.59%
V 310.230	120.8	0.0020	0.00347 mg/L	175.99%
Zn 206.191	1.1	0.0002	0.00010 mg/L	41.44%

## Mean Data

ID: MRL                                      Seq. No.: 9                      Sample No.: 3                      A/S Pos: 6  
Sample Qty: 1.0000 g                      Prep. Vol.: 1.0 L                      Dilution: 1.0: 1.0  
Data: Original                                      Date: 4/8/09                      10:16:32 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	507979.7	1.021	0.0941	mg/L				9.22%
Ag 328.068	381.2	0.0105	0.00136	mg/L				12.88%
Al 308.215	526.3	0.2016	0.00057	mg/L				0.28%
B 249.773	2361.3	0.2043	0.00306	mg/L				1.50%
Ba 233.527	3214.8	0.2256	0.01510	mg/L				6.69%
Be 313.042	5952.1	0.0052	0.00000	mg/L				0.07%
Ca 317.933	23858.2	1.061	0.0025	mg/L				0.24%
Co 228.616	283.1	0.0563	0.00303	mg/L				5.38%
Cr 267.716	124.9	0.0119	0.00076	mg/L				6.42%
Cu 324.754	1400.2	0.0275	0.00110	mg/L				4.01%
Fe 259.940	2158.5	0.1039	0.00058	mg/L				0.56%
K 766.491	4413.5	1.016	0.0166	mg/L				1.63%
Mg 279.079	2639.4	1.060	0.0076	mg/L				0.71%
Mn 257.610	1602.7	0.0161	0.00007	mg/L				0.46%
Mo 202.030	31.6	0.0253	0.00360	mg/L				14.20%
Na 589.592	10737.0	1.054	0.0066	mg/L				0.63%
Ni 231.604	167.4	0.0448	0.00346	mg/L				7.72%
Sr 421.552	73727.3	0.1048	0.00011	mg/L				0.11%
Sn 189.933	121.2	0.5227	0.02044	mg/L				3.91%
Ti 334.941	6875.6	0.0510	0.00006	mg/L				0.12%
V 310.230	3374.6	0.0551	0.00434	mg/L				7.88%
Zn 206.191	98.8	0.0223	0.00148	mg/L				6.64%

## Mean Data

ID: ICSCA                                      Seq. No.: 10                      Sample No.: 4                      A/S Pos: 7  
Sample Qty: 1.0000 g                      Prep. Vol.: 1.0 L                      Dilution: 1.0: 1.0  
Data: Original                                      Date: 4/8/09                      10:22:15 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	479913.0	0.965	0.0285	mg/L				2.96%
Ag 328.068	-515.5	0.0017	0.00072	mg/L				41.20%
Al 308.215	1342081.7	514.2	0.22	mg/L				0.04%
B 249.773	1928.5	-0.0672	0.00705	mg/L				10.50%
Ba 233.527	124.8	0.0088	0.00019	mg/L				2.20%
Be 313.042	106.6	0.0001	0.00002	mg/L				25.09%
Ca 317.933	11281483.0	501.6	9.38	mg/L				1.87%
Co 228.616	8.7	0.0017	0.00071	mg/L				40.78%
Cr 267.716	-92.3	-0.0023	0.00081	mg/L				34.92%
Cu 324.754	-1717.2	0.0111	0.00089	mg/L				8.03%
Fe 259.940	4013790.3	193.2	3.28	mg/L				1.70%
K 766.491	-188.5	-0.0434	0.02159	mg/L				49.77%
Mg 279.079	1289942.0	518.1	0.03	mg/L				0.00%
Mn 257.610	2090.8	0.0032	0.00048	mg/L				14.71%
Mo 202.030	-15.8	-0.0127	0.00282	mg/L				22.24%
Na 589.592	-183.3	-0.0180	0.00724	mg/L				40.24%
Ni 231.604	2.3	0.0006	0.00076	mg/L				124.93%
Sr 421.552	3273.8	-0.0979	0.00222	mg/L				2.27%
Sn 189.933	-0.1	-0.1583	0.00638	mg/L				4.03%
Ti 334.941	-199.6	-0.0015	0.00011	mg/L				7.16%
V 310.230	509.5	0.0083	0.00059	mg/L				7.07%

Zn 206.191 27.2 -0.0047 0.00134 mg/L 28.71%

## Mean Data

ID: ICSAB Seq. No.: 11 Sample No.: 5 A/S Pos: 8  
 Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0  
 Date: Original Date: 4/8/09 10:28:09 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	497028.0	0.999	0.0239	mg/L				2.39%
Ag 328.068	36367.0	1.021	0.0061	mg/L				0.60%
Al 308.215	1330409.6	509.8	7.26	mg/L				1.42%
B 249.773	1795.0	-0.0763	0.00801	mg/L				10.49%
Ba 233.527	7007.3	0.4917	0.01030	mg/L				2.10%
Be 313.042	557556.9	0.4871	0.00628	mg/L				1.29%
Ca 317.933	11095424.3	493.3	12.73	mg/L				2.58%
Co 228.616	2406.6	0.4790	0.01329	mg/L				2.77%
Cr 267.716	5030.7	0.4850	0.00927	mg/L				1.91%
Cu 324.754	22708.5	0.4912	0.00079	mg/L				0.16%
Fe 259.940	3972581.9	191.2	2.39	mg/L				1.25%
K 766.491	-1.2	-0.0003	0.01840	mg/L				>999.9%
Mg 279.079	1270365.4	510.3	6.64	mg/L				1.30%
Mn 257.610	50417.9	0.4877	0.00066	mg/L				0.14%
Mo 202.030	-13.6	-0.0109	0.00303	mg/L				27.85%
Na 589.592	-32.6	-0.0032	0.01314	mg/L				410.88%
Ni 231.604	3522.2	0.9429	0.02152	mg/L				2.28%
Sr 421.552	3267.5	-0.0962	0.00261	mg/L				2.72%
Sn 189.933	0.2	-0.1542	0.01079	mg/L				7.00%
Ti 334.941	-180.4	-0.0013	0.00004	mg/L				2.81%
V 310.230	30425.6	0.4964	0.00217	mg/L				0.44%
Zn 206.191	4233.4	0.9447	0.02379	mg/L				2.52%

## Mean Data

ID: GCV Seq. No.: 12 Sample No.: 6 A/S Pos: 3  
 Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0  
 Date: Original Date: 4/8/09 10:34:01 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	477822.7	0.960	0.0086	mg/L				0.90%
Ag 328.068	18473.3	0.5106	0.00082	mg/L				0.16%
Al 308.215	25858.6	9.908	0.0203	mg/L				0.20%
B 249.773	27836.9	2.408	0.0120	mg/L				0.50%
Ba 233.527	137111.1	9.621	0.0183	mg/L				0.19%
Be 313.042	289696.6	0.2531	0.00005	mg/L				0.02%
Ca 317.933	1159548.6	51.55	0.071	mg/L				0.14%
Co 228.616	12444.8	2.477	0.0498	mg/L				2.01%
Cr 267.716	5364.0	0.5104	0.01178	mg/L				2.31%
Cu 324.754	63815.5	1.256	0.0006	mg/L				0.05%
Fe 259.940	104442.7	5.028	0.0125	mg/L				0.25%
K 766.491	215412.6	49.59	0.279	mg/L				0.56%
Mg 279.079	123448.5	49.58	0.242	mg/L				0.49%
Mn 257.610	75126.6	0.7528	0.00122	mg/L				0.16%
Mo 202.030	3053.7	2.447	0.0497	mg/L				2.03%
Na 589.592	510013.8	50.07	0.058	mg/L				0.12%
Ni 231.604	7567.1	2.026	0.0424	mg/L				2.09%
Sr 421.552	1756796.0	2.496	0.0015	mg/L				0.06%
Sn 189.933	1137.9	4.907	0.0771	mg/L				1.57%
Ti 334.941	324332.7	2.406	0.0008	mg/L				0.03%
V 310.230	152569.3	2.489	0.0022	mg/L				0.09%
Zn 206.191	4498.9	1.015	0.0196	mg/L				1.93%

## Mean Data

ID: CCB Seq. No.: 13 Sample No.: 7 A/S Pos: 1  
 Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0  
 Date: Original Date: 4/8/09 10:39:35 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	481351.5	0.967	0.0516	mg/L				5.34%
Ag 328.068	17.2	0.0005	0.00161	mg/L				339.94%
Al 308.215	-1.8	-0.0007	0.00046	mg/L				67.50%
B 249.773	227.2	0.0197	0.00266	mg/L				13.55%

Ba 233.527	4.4	0.0003	0.00021 mg/L	66.40%
Be 313.042	82.3	0.0001	0.00005 mg/L	66.87%
Ca 317.933	92.0	0.0041	0.00090 mg/L	22.00%
Co 228.616	-1.4	-0.0003	0.00004 mg/L	12.52%
Cr 267.716	8.5	0.0008	0.00014 mg/L	17.11%
Cu 324.754	51.4	0.0010	0.00024 mg/L	23.62%
Fe 259.940	25.5	0.0012	0.00047 mg/L	38.49%
K 766.491	-173.5	-0.0399	0.01977 mg/L	49.51%
Mg 279.079	-6.3	-0.0025	0.01057 mg/L	418.57%
Mn 257.610	9.3	0.0001	0.00022 mg/L	235.04%
Mo 202.030	-4.1	-0.0033	0.00295 mg/L	90.59%
Na 589.592	-28.0	-0.0028	0.00408 mg/L	148.21%
Ni 231.604	0.9	0.0002	0.00024 mg/L	96.67%
Sr 421.552	546.8	0.0008	0.00002 mg/L	2.95%
Sn 189.933	1.1	0.0046	0.00574 mg/L	123.69%
Ti 334.941	57.9	0.0004	0.00029 mg/L	67.28%
V 310.230	245.8	0.0040	0.00231 mg/L	57.48%
Zn 206.191	0.9	0.0002	0.00006 mg/L	32.12%

Mean Data

ID: PBW-85125      Seq. No.: 14      Sample No.: 1      A/S Pos: 9  
 Sample Qty: 1.0000 mL      Prep. Vol.: 100.0 mL      Dilution: 1.0: 1.0  
 Date: Original      Date: 4/8/09      10:45:04 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	445134.9	0.895	0.0747	mg/L				8.35%
Ag 328.068	49.3	0.0014	0.00209	mg/L				153.12%
Al 308.215	-14.2	-0.0054	0.00124	mg/L				22.74%
B 249.773	-34.9	-0.0030	0.00180	mg/L				59.66%
Ba 233.527	-2.7	-0.0002	0.00007	mg/L				37.09%
Be 313.042	151.5	0.0001	0.00001	mg/L				9.58%
Ca 317.933	345.0	0.0153	0.00129	mg/L				8.43%
Co 228.616	1.0	0.0002	0.00090	mg/L				476.75%
Cr 267.716	15.8	0.0015	0.00001	mg/L				0.91%
Cu 324.754	60.9	0.0012	0.00047	mg/L				38.83%
Fe 259.940	67.7	0.0033	0.00050	mg/L				15.30%
K 766.491	-239.6	-0.0552	0.00707	mg/L				12.82%
Mg 279.079	16.9	0.0068	0.00237	mg/L				34.93%
Mn 257.610	8.4	0.0001	0.00001	mg/L				17.58%
Mo 202.030	4.4	0.0035	0.00136	mg/L				38.71%
Na 589.592	-65.2	-0.0064	0.00420	mg/L				65.66%
Ni 231.604	-7.3	-0.0019	0.00070	mg/L				36.04%
Sr 421.552	572.6	0.0008	0.00035	mg/L				43.40%
Sn 189.933	-0.3	-0.0015	0.00455	mg/L				312.80%
Ti 334.941	92.3	0.0007	0.00035	mg/L				51.70%
V 310.230	393.4	0.0064	0.00317	mg/L				49.38%
Zn 206.191	0.6	0.0001	0.00072	mg/L				489.54%

Mean Data

ID: LCSW-85125      Seq. No.: 15      Sample No.: 2      A/S Pos: 10  
 Sample Qty: 1.0000 mL      Prep. Vol.: 1.0 mL      Dilution: 1.0: 1.0  
 Date: Original      Date: 4/8/09      10:50:38 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	468929.6	0.942	0.0311	mg/L				3.30%
Ag 328.068	1838.4	0.0508	0.00044	mg/L	0.0508	0.00044	mg/L	0.86%
Al 308.215	5178.7	1.984	0.0091	mg/L	1.984	0.0091	mg/L	0.46%
B 249.773	10787.8	0.9334	0.00078	mg/L	0.9334	0.00078	mg/L	0.08%
Ba 233.527	27663.5	1.941	0.0071	mg/L	1.941	0.0071	mg/L	0.37%
Be 313.042	56484.1	0.0493	0.00003	mg/L	0.0493	0.00003	mg/L	0.06%
Ca 317.933	46200.8	2.054	0.0068	mg/L	2.054	0.0068	mg/L	0.33%
Co 228.616	2564.6	0.5104	0.00596	mg/L	0.5104	0.00596	mg/L	1.17%
Cr 267.716	2121.5	0.2019	0.00373	mg/L	0.2019	0.00373	mg/L	1.85%
Cu 324.754	13256.1	0.2608	0.00031	mg/L	0.2608	0.00031	mg/L	0.12%
Fe 259.940	22645.6	1.090	0.0077	mg/L	1.090	0.0077	mg/L	0.71%
K 766.491	84313.3	19.41	0.031	mg/L	19.41	0.031	mg/L	0.16%
Mg 279.079	4860.9	1.952	0.0025	mg/L	1.952	0.0025	mg/L	0.13%
Mn 257.610	49292.4	0.4939	0.00323	mg/L	0.4939	0.00323	mg/L	0.65%
Mo 202.030	604.7	0.4846	0.00465	mg/L	0.4846	0.00465	mg/L	0.96%
Na 589.592	200131.7	19.65	0.608	mg/L	19.65	0.608	mg/L	3.09%
Ni 231.604	1943.2	0.5202	0.00486	mg/L	0.5202	0.00486	mg/L	0.93%

Sr 421.552	1400670.2	1.990	0.0577 mg/L	1.990	0.0577 mg/L	2.90%
Sn 189.933	1181.8	5.096	0.1343 mg/L	5.096	0.1343 mg/L	2.64%
Ti 334.941	65392.6	0.4852	0.00101 mg/L	0.4852	0.00101 mg/L	0.21%
V 310.230	30404.5	0.4961	0.00201 mg/L	0.4961	0.00201 mg/L	0.40%
Zn 206.191	2190.5	0.4943	0.00619 mg/L	0.4943	0.00619 mg/L	1.25%

Mean Data

ID: R0901771-001 1/5      Seq. No.: 16      Sample No.: 3      A/S Pos: 11  
 Sample Qty: 1.0000 mL      Prep. Vol.: 1.0 mL      Dilution: 1.0: 5.0  
 Data: Original      Date: 4/8/09      10:56:15 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	475895.8	0.956	0.0593	mg/L	-0.0030	0.01107	mg/L	6.20%
Ag 328.068	-21.5	-0.0006	0.00221	mg/L	0.1290	0.00175	mg/L	373.37%
Al 308.215	67.3	0.0258	0.00035	mg/L	0.0668	0.01203	mg/L	1.36%
B 249.773	154.4	0.0134	0.00241	mg/L	0.0301	0.00011	mg/L	18.01%
Ba 233.527	85.8	0.0060	0.00002	mg/L	0.0004	0.00002	mg/L	0.37%
Be 313.042	88.4	0.0001	0.00000	mg/L	94.36	0.126	mg/L	5.21%
Ca 317.933	424473.5	18.87	0.025	mg/L	-0.0015	0.00194	mg/L	0.13%
Co 228.616	-1.5	-0.0003	0.00039	mg/L	0.0123	0.00434	mg/L	132.76%
Cr 267.716	25.8	0.0025	0.00087	mg/L	0.0478	0.00954	mg/L	35.29%
Cu 324.754	486.3	0.0096	0.00191	mg/L	0.1452	0.00222	mg/L	19.95%
Fe 259.940	603.4	0.0290	0.00044	mg/L	4.393	0.0846	mg/L	1.53%
K 766.491	3816.8	0.8786	0.01692	mg/L	23.37	0.025	mg/L	1.93%
Mg 279.079	11635.8	4.674	0.0049	mg/L	0.0074	0.00005	mg/L	0.11%
Mn 257.610	146.8	0.0015	0.00001	mg/L	0.1243	0.01216	mg/L	0.69%
Mo 202.030	31.0	0.0249	0.00243	mg/L	410.3	1.46	mg/L	9.78%
Na 589.592	835877.4	82.05	0.292	mg/L	0.0342	0.00267	mg/L	0.36%
Ni 231.604	25.6	0.0068	0.00053	mg/L	0.2681	0.00282	mg/L	7.80%
Sr 421.552	37738.0	0.0536	0.00056	mg/L	-0.0040	0.07326	mg/L	1.05%
Sn 189.933	-0.2	-0.0008	0.01465	mg/L	0.0024	0.00318	mg/L	>999.9%
Ti 334.941	63.6	0.0005	0.00064	mg/L	0.0200	0.01411	mg/L	134.71%
V 310.230	244.9	0.0040	0.00282	mg/L	0.0208	0.00049	mg/L	70.63%
Zn 206.191	18.5	0.0042	0.00010	mg/L				2.33%

Mean Data

ID: R0901771-001D 1/5      Seq. No.: 17      Sample No.: 4      A/S Pos: 12  
 Sample Qty: 1.0000 mL      Prep. Vol.: 1.0 mL      Dilution: 1.0: 5.0  
 Data: Original      Date: 4/8/09      11:01:54 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	518803.8	1.043	0.0603	mg/L	-0.0046	0.00181	mg/L	5.78%
Ag 328.068	-33.4	-0.0009	0.00036	mg/L	0.1555	0.08944	mg/L	39.19%
Al 308.215	81.2	0.0311	0.01789	mg/L	0.0053	0.00608	mg/L	57.52%
B 249.773	12.2	0.0011	0.00122	mg/L	0.0299	0.00293	mg/L	115.20%
Ba 233.527	85.2	0.0060	0.00059	mg/L	-0.0001	0.00008	mg/L	9.79%
Be 313.042	-12.2	0.0000	0.00002	mg/L	95.60	0.426	mg/L	150.53%
Ca 317.933	430026.4	19.12	0.085	mg/L	0.0023	0.00236	mg/L	0.45%
Co 228.616	2.3	0.0005	0.00047	mg/L	0.0033	0.00545	mg/L	104.40%
Cr 267.716	7.0	0.0007	0.00109	mg/L	0.0466	0.00827	mg/L	163.02%
Cu 324.754	473.5	0.0093	0.00165	mg/L	0.1257	0.00154	mg/L	17.75%
Fe 259.940	522.3	0.0251	0.00031	mg/L	4.708	0.0469	mg/L	1.23%
K 766.491	4090.5	0.9416	0.00938	mg/L	23.29	0.305	mg/L	1.00%
Mg 279.079	11598.7	4.659	0.0610	mg/L	0.0087	0.00059	mg/L	1.31%
Mn 257.610	173.7	0.0017	0.00012	mg/L	0.1335	0.00766	mg/L	6.74%
Mo 202.030	33.3	0.0267	0.00153	mg/L	414.4	1.05	mg/L	5.74%
Na 589.592	844336.2	82.88	0.209	mg/L	0.0313	0.00959	mg/L	0.25%
Ni 231.604	23.4	0.0063	0.00192	mg/L	0.2676	0.00508	mg/L	30.68%
Sr 421.552	37668.6	0.0535	0.00102	mg/L	-0.0258	0.00612	mg/L	1.90%
Sn 189.933	-1.2	-0.0052	0.00122	mg/L	0.0015	0.00275	mg/L	23.76%
Ti 334.941	40.7	0.0003	0.00055	mg/L	0.0077	0.01344	mg/L	181.99%
V 310.230	95.0	0.0015	0.00269	mg/L	0.0310	0.00277	mg/L	173.46%
Zn 206.191	27.4	0.0062	0.00055	mg/L				8.94%

Mean Data

ID: R0901771-001S 1/5      Seq. No.: 18      Sample No.: 5      A/S Pos: 13  
 Sample Qty: 1.0000 mL      Prep. Vol.: 1.0 mL      Dilution: 1.0: 5.0  
 Data: Original      Date: 4/8/09      11:07:33 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
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Element	Intensity	Mean	Std. Dev.	Calib	Mean	Std. Dev.	Sample	RSD
Y 371.030	528155.5	1.062	0.0407	mg/L				3.84%
Ag 328.068	336.1	0.0093	0.00032	mg/L	0.0464	0.00162	mg/L	3.49%
Al 308.215	1052.6	0.4033	0.00396	mg/L	2.017	0.0198	mg/L	0.98%
B 249.773	2433.9	0.2106	0.00624	mg/L	1.053	0.0312	mg/L	2.96%
Ba 233.527	5900.2	0.4140	0.01127	mg/L	2.070	0.0563	mg/L	2.72%
Be 313.042	11502.1	0.0100	0.00006	mg/L	0.0502	0.00032	mg/L	0.63%
Ca 317.933	452974.3	20.14	0.396	mg/L	100.7	1.98	mg/L	1.97%
Co 228.616	533.9	0.1063	0.00118	mg/L	0.5313	0.00588	mg/L	1.11%
Cr 267.716	442.8	0.0421	0.00176	mg/L	0.2106	0.00881	mg/L	4.18%
Cu 324.754	3137.2	0.0617	0.00031	mg/L	0.3086	0.00155	mg/L	0.50%
Fe 259.940	4905.1	0.2361	0.00623	mg/L	1.181	0.0311	mg/L	2.64%
K 766.491	21549.0	4.960	0.0432	mg/L	24.80	0.216	mg/L	0.87%
Mg 279.079	12846.7	5.160	0.0457	mg/L	25.80	0.228	mg/L	0.88%
Mn 257.610	10321.8	0.1034	0.00011	mg/L	0.5171	0.00053	mg/L	0.10%
Mo 202.030	157.4	0.1261	0.00269	mg/L	0.6306	0.01347	mg/L	2.14%
Na 589.592	908470.3	89.18	1.442	mg/L	445.9	7.21	mg/L	1.62%
Ni 231.604	436.0	0.1167	0.00340	mg/L	0.5835	0.01702	mg/L	2.92%
Sr 421.552	324443.5	0.4610	0.00893	mg/L	2.305	0.0447	mg/L	1.94%
Sn 189.933	253.8	1.094	0.0495	mg/L	5.472	0.2473	mg/L	4.52%
Ti 334.941	13305.3	0.0987	0.00005	mg/L	0.4936	0.00027	mg/L	0.05%
V 310.230	6295.8	0.1027	0.00089	mg/L	0.5136	0.00445	mg/L	0.87%
Zn 206.191	484.0	0.1092	0.00220	mg/L	0.5461	0.01099	mg/L	2.01%

Mean Data

ID: R0901771-001A 1/5      Seq. No.: 19      Sample No.: 6      A/S Pos: 14  
 Sample Qty: 1.0000 mL      Prep. Vol.: 1.0 mL      Dilution: 1.0: 5.0  
 Data: Original      Date: 4/8/09      11:13:12 AM

Element	Mean Corr. Intensity	Mean Conc.	Std. Dev.	Calib Units	Mean Conc.	Std. Dev.	Sample Units	RSD
Y 371.030	522844.6	1.051	0.0649	mg/L				6.17%
Ag 328.068	1587.5	0.0439	0.00084	mg/L	0.2194	0.00418	mg/L	1.91%
Al 308.215	5306.1	2.033	0.0163	mg/L	10.17	0.082	mg/L	0.80%
B 249.773	11852.1	1.025	0.0020	mg/L	5.127	0.0099	mg/L	0.19%
Ba 233.527	28672.0	2.012	0.0095	mg/L	10.06	0.048	mg/L	0.47%
Be 313.042	57661.6	0.0504	0.00029	mg/L	0.2519	0.00147	mg/L	0.58%
Ca 317.933	475480.4	21.14	0.004	mg/L	105.7	0.02	mg/L	0.02%
Co 228.616	2666.3	0.5306	0.02840	mg/L	2.653	0.1420	mg/L	5.35%
Cr 267.716	2118.7	0.2016	0.00431	mg/L	1.008	0.0216	mg/L	2.14%
Cu 324.754	13702.8	0.2696	0.00290	mg/L	1.348	0.0145	mg/L	1.08%
Fe 259.940	22585.9	1.087	0.0010	mg/L	5.436	0.0052	mg/L	0.10%
K 766.491	90318.1	20.79	0.013	mg/L	104.0	0.07	mg/L	0.06%
Mg 279.079	16743.3	6.725	0.0047	mg/L	33.63	0.023	mg/L	0.07%
Mn 257.610	52066.3	0.5217	0.00129	mg/L	2.608	0.0065	mg/L	0.25%
Mo 202.030	29.3	0.0235	0.00061	mg/L	0.1173	0.00305	mg/L	2.60%
Na 589.592	1041303.6	102.2	0.06	mg/L	511.1	0.29	mg/L	0.06%
Ni 231.604	2060.2	0.5515	0.02559	mg/L	2.757	0.1279	mg/L	4.64%
Sr 421.552	37371.9	0.0531	0.00051	mg/L	0.2655	0.00257	mg/L	0.97%
Sn 189.933	1.4	0.0060	0.01925	mg/L	0.0301	0.09625	mg/L	320.12%
Ti 334.941	100.2	0.0007	0.00099	mg/L	0.0037	0.00493	mg/L	132.55%
V 310.230	31313.8	0.5109	0.00370	mg/L	2.554	0.0185	mg/L	0.72%
Zn 206.191	2330.6	0.5259	0.02777	mg/L	2.630	0.1388	mg/L	5.28%

Mean Data

ID: R0901771-001L 1/5      Seq. No.: 20      Sample No.: 7      A/S Pos: 15  
 Sample Qty: 1.0000 mL      Prep. Vol.: 1.0 mL      Dilution: 1.0: 5.0  
 Data: Original      Date: 4/8/09      11:18:48 AM

Element	Mean Corr. Intensity	Mean Conc.	Std. Dev.	Calib Units	Mean Conc.	Std. Dev.	Sample Units	RSD
Y 371.030	579049.5	1.164	0.0995	mg/L				8.55%
Ag 328.068	-10.3	-0.0003	0.00246	mg/L	-0.0014	0.01231	mg/L	868.07%
Al 308.215	-4.4	-0.0017	0.01636	mg/L	-0.0085	0.08179	mg/L	962.38%
B 249.773	50.5	0.0044	0.00299	mg/L	0.0218	0.01497	mg/L	68.58%
Ba 233.527	15.1	0.0011	0.00001	mg/L	0.0053	0.00003	mg/L	0.56%
Be 313.042	-28.6	0.0000	0.00001	mg/L	-0.0001	0.00005	mg/L	39.93%
Ca 317.933	88247.1	3.924	0.0090	mg/L	19.62	0.045	mg/L	0.23%
Co 228.616	-1.1	-0.0002	0.00125	mg/L	-0.0011	0.00625	mg/L	585.11%
Cr 267.716	15.9	0.0015	0.00064	mg/L	0.0076	0.00320	mg/L	42.19%
Cu 324.754	48.6	0.0010	0.00042	mg/L	0.0048	0.00208	mg/L	43.48%
Fe 259.940	167.3	0.0081	0.00024	mg/L	0.0403	0.00118	mg/L	2.92%
K 766.491	776.2	0.1787	0.01387	mg/L	0.8933	0.06936	mg/L	7.76%
Mg 279.079	2369.2	0.9516	0.00264	mg/L	4.758	0.0132	mg/L	0.28%

Mn 257.610	31.9	0.0003	0.00007 mg/L	0.0016	0.00037 mg/L	23.00%
Mo 202.030	3.7	0.0029	0.00125 mg/L	0.0147	0.00627 mg/L	42.52%
Na 589.592	173463.4	17.03	0.040 mg/L	85.14	0.200 mg/L	0.24%
Ni 231.604	3.4	0.0009	0.00055 mg/L	0.0045	0.00276 mg/L	61.45%
Sr 421.552	7447.0	0.0106	0.00015 mg/L	0.0529	0.00074 mg/L	1.40%
Sn 189.933	-1.1	-0.0048	0.00922 mg/L	-0.0241	0.04609 mg/L	191.51%
Ti 334.941	28.5	0.0002	0.00000 mg/L	0.0011	0.00000 mg/L	0.18%
V 310.230	-43.1	-0.0007	0.00239 mg/L	-0.0035	0.01195 mg/L	339.91%
Zn 206.191	13.4	0.0030	0.00000 mg/L	0.0151	0.00002 mg/L	0.16%

Mean Data

ID: R0901771-001      Seq. No.: 21      Sample No.: 8      A/S Pos: 16  
 Sample Qty: 1.0000 mL      Prep. Vol.: 1.0 mL      Dilution: 1.0: 1.0  
 Data: Original      Date: 4/8/09      11:24:26 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	516171.5	1.037	0.0376	mg/L	0.0003	0.00041	mg/L	3.62%
Ag 328.068	10.4	0.0003	0.00041	mg/L	0.0693	0.00419	mg/L	142.01%
Al 308.215	181.0	0.0693	0.00419	mg/L	0.0251	0.00152	mg/L	6.04%
B 249.773	290.3	0.0251	0.00152	mg/L	0.0308	0.00091	mg/L	6.07%
Ba 233.527	438.9	0.0308	0.00091	mg/L	0.0000	0.00001	mg/L	2.97%
Be 313.042	11.6	0.0000	0.00001	mg/L	0.0000	0.00002	mg/L	82.92%
Ca 317.933	2074573.6	92.24	1.425	mg/L	92.24	1.425	mg/L	1.55%
Co 228.616	-0.2	0.0000	0.00002	mg/L	0.0000	0.00002	mg/L	43.86%
Cr 267.716	60.0	0.0057	0.00056	mg/L	0.0057	0.00056	mg/L	9.85%
Cu 324.754	1967.4	0.0387	0.00037	mg/L	0.0387	0.00037	mg/L	0.95%
Fe 259.940	2371.3	0.1141	0.00239	mg/L	0.1141	0.00239	mg/L	2.09%
K 766.491	20103.4	4.628	0.0239	mg/L	4.628	0.0239	mg/L	0.52%
Mg 279.079	55631.0	22.34	0.097	mg/L	22.34	0.097	mg/L	0.44%
Mn 257.610	653.8	0.0066	0.00023	mg/L	0.0066	0.00023	mg/L	3.57%
Mo 202.030	154.3	0.1236	0.00404	mg/L	0.1236	0.00404	mg/L	3.27%
Na 589.592	4005962.5	393.2	7.65	mg/L	393.2	7.65	mg/L	1.95%
Ni 231.604	110.3	0.0295	0.00082	mg/L	0.0295	0.00082	mg/L	2.78%
Sr 421.552	180978.5	0.2572	0.00001	mg/L	0.2572	0.00001	mg/L	0.00%
Sn 189.933	2.1	0.0092	0.00277	mg/L	0.0092	0.00277	mg/L	30.12%
Ti 334.941	-91.1	-0.0007	0.00048	mg/L	-0.0007	0.00048	mg/L	70.39%
V 310.230	191.5	0.0031	0.00168	mg/L	0.0031	0.00168	mg/L	53.74%
Zn 206.191	47.8	0.0108	0.00084	mg/L	0.0108	0.00084	mg/L	7.82%

Mean Data

ID: R0901771-001D      Seq. No.: 22      Sample No.: 9      A/S Pos: 17  
 Sample Qty: 1.0000 mL      Prep. Vol.: 1.0 mL      Dilution: 1.0: 1.0  
 Data: Original      Date: 4/8/09      11:30:10 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	545415.0	1.096	0.0225	mg/L	-0.0014	0.00231	mg/L	2.05%
Ag 328.068	-52.3	-0.0014	0.00231	mg/L	0.0661	0.03387	mg/L	159.41%
Al 308.215	172.4	0.0661	0.03387	mg/L	0.0253	0.00078	mg/L	51.27%
B 249.773	292.4	0.0253	0.00078	mg/L	0.0324	0.00009	mg/L	3.10%
Ba 233.527	461.7	0.0324	0.00009	mg/L	0.0000	0.00004	mg/L	0.28%
Be 313.042	40.1	0.0000	0.00004	mg/L	0.0000	0.00004	mg/L	122.39%
Ca 317.933	2172094.5	96.57	2.622	mg/L	96.57	2.622	mg/L	2.72%
Co 228.616	-2.5	-0.0005	0.00080	mg/L	-0.0005	0.00080	mg/L	160.75%
Cr 267.716	56.4	0.0054	0.00034	mg/L	0.0054	0.00034	mg/L	6.33%
Cu 324.754	2087.8	0.0411	0.00086	mg/L	0.0411	0.00086	mg/L	2.10%
Fe 259.940	2950.4	0.1420	0.00125	mg/L	0.1420	0.00125	mg/L	0.88%
K 766.491	21511.9	4.952	0.0462	mg/L	4.952	0.0462	mg/L	0.93%
Mg 279.079	58475.4	23.49	0.051	mg/L	23.49	0.051	mg/L	0.22%
Mn 257.610	707.3	0.0071	0.00018	mg/L	0.0071	0.00018	mg/L	0.22%
Mo 202.030	155.0	0.1242	0.00165	mg/L	0.1242	0.00165	mg/L	2.61%
Na 589.592	4200752.7	412.4	9.15	mg/L	412.4	9.15	mg/L	1.33%
Ni 231.604	131.1	0.0351	0.00026	mg/L	0.0351	0.00026	mg/L	2.22%
Sr 421.552	191079.5	0.2715	0.00105	mg/L	0.2715	0.00105	mg/L	0.75%
Sn 189.933	0.1	0.0004	0.00996	mg/L	0.0004	0.00996	mg/L	0.39%
Ti 334.941	-34.5	-0.0003	0.00008	mg/L	-0.0003	0.00008	mg/L	>999.9%
V 310.230	80.0	0.0013	0.00071	mg/L	0.0013	0.00071	mg/L	32.83%
Zn 206.191	51.8	0.0117	0.00079	mg/L	0.0117	0.00079	mg/L	54.25%

Mean Data

ID: R0901771-001S      Seq. No.: 23      Sample No.: 10      A/S Pos: 18  
 Sample Qty: 1.0000 mL      Prep. Vol.: 1.0 mL      Dilution: 1.0: 1.0

Data: Original

Date: 4/8/09

11:35:54 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030		Saturated	-	data not affected				
Ag 328.068	1724.7	0.0477	0.00037	mg/L	0.0477	0.00037	mg/L	0.77%
Al 308.215	5354.6	2.052	0.0435	mg/L	2.052	0.0435	mg/L	2.12%
B 249.773	12710.7	1.100	0.0265	mg/L	1.100	0.0265	mg/L	2.41%
Ba 233.527	28414.6	1.994	0.1258	mg/L	1.994	0.1258	mg/L	6.31%
Be 313.042	56306.6	0.0492	0.00305	mg/L	0.0492	0.00305	mg/L	6.19%
Ca 317.933	2212399.1	98.37	6.398	mg/L	98.37	6.398	mg/L	6.50%
Co 228.616	2598.3	0.5171	0.00832	mg/L	0.5171	0.00832	mg/L	1.61%
Cr 267.716	2117.8	0.2015	0.00431	mg/L	0.2015	0.00431	mg/L	2.14%
Cu 324.754	15501.3	0.3050	0.01961	mg/L	0.3050	0.01961	mg/L	6.43%
Fe 259.940	23797.9	1.146	0.0805	mg/L	1.146	0.0805	mg/L	7.03%
K 766.491	111574.5	25.68	1.483	mg/L	25.68	1.483	mg/L	5.77%
Mg 279.079	63180.7	25.38	1.664	mg/L	25.38	1.664	mg/L	6.56%
Mn 257.610	51409.5	0.5151	0.03660	mg/L	0.5151	0.03660	mg/L	7.10%
Mo 202.030	763.5	0.6119	0.01778	mg/L	0.6119	0.01778	mg/L	2.91%
Na 589.592	4399856.6	431.9	28.67	mg/L	431.9	28.67	mg/L	6.64%
Ni 231.604	2075.8	0.5557	0.01311	mg/L	0.5557	0.01311	mg/L	2.36%
Sr 421.552	1612045.8	2.291	0.1585	mg/L	2.291	0.1585	mg/L	6.92%
Sn 189.933	1223.1	5.274	0.0909	mg/L	5.274	0.0909	mg/L	1.72%
Ti 334.941	66479.7	0.4932	0.03266	mg/L	0.4932	0.03266	mg/L	6.62%
V 310.230	30944.5	0.5049	0.03166	mg/L	0.5049	0.03166	mg/L	6.27%
Zn 206.191	2285.7	0.5158	0.00976	mg/L	0.5158	0.00976	mg/L	1.89%

*Handwritten note: data not affected. Analyzed below. 04/08/09*

Mean Data

ID: CCV  
 Sample Qty: 1.0000 g  
 Seq. No.: 24  
 Prep. Vol.: 1.0 L  
 Data: Original  
 Sample No.: 6  
 Dilution: 1.0: 1.0  
 Date: 4/8/09 11:41:41 AM  
 A/S Pos: 3

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	533236.1	1.072	0.0350	mg/L				3.27%
Ag 328.068	18507.5	0.5115	0.00651	mg/L				1.27%
Al 308.215	26109.7	10.00	0.025	mg/L				0.25%
B 249.773	29231.3	2.529	0.0131	mg/L				0.52%
Ba 233.527	139873.6	9.815	0.0531	mg/L				0.54%
Be 313.042	289003.8	0.2525	0.00035	mg/L				0.14%
Ca 317.933	1141188.8	50.74	0.739	mg/L				1.46%
Co 228.616	12658.7	2.519	0.0475	mg/L				1.88%
Cr 267.716	5466.9	0.5202	0.00712	mg/L				1.37%
Cu 324.754	64626.6	1.271	0.0053	mg/L				0.42%
Fe 259.940	107201.3	5.160	0.0269	mg/L				0.52%
K 766.491	219631.9	50.56	0.462	mg/L				0.91%
Mg 279.079	126669.1	50.88	0.144	mg/L				0.28%
Mn 257.610	77086.8	0.7724	0.00261	mg/L				0.34%
Mo 202.030	3129.9	2.508	0.0346	mg/L				1.38%
Na 589.592	505906.3	49.66	0.576	mg/L				1.16%
Ni 231.604	7744.5	2.073	0.0353	mg/L				1.70%
Sr 421.552	1736243.4	2.467	0.0384	mg/L				1.56%
Sn 189.933	1193.0	5.145	0.0675	mg/L				1.31%
Ti 334.941	327759.6	2.432	0.0029	mg/L				0.12%
V 310.230	153938.2	2.512	0.0069	mg/L				0.28%
Zn 206.191	4608.1	1.040	0.0185	mg/L				1.78%

Mean Data

ID: CCB  
 Sample Qty: 1.0000 g  
 Seq. No.: 25  
 Prep. Vol.: 1.0 L  
 Data: Original  
 Sample No.: 7  
 Dilution: 1.0: 1.0  
 Date: 4/8/09 11:47:15 AM  
 A/S Pos: 1

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	542955.8	1.091	0.0653	mg/L				5.98%
Ag 328.068	-39.7	-0.0011	0.00005	mg/L				4.44%
Al 308.215	-24.8	-0.0095	0.02666	mg/L				280.20%
B 249.773	191.3	0.0166	0.00347	mg/L				20.96%
Ba 233.527	3.8	0.0003	0.00020	mg/L				75.80%
Be 313.042	41.7	0.0000	0.00006	mg/L				158.85%
Ca 317.933	56.6	0.0025	0.00032	mg/L				12.63%
Co 228.616	3.6	0.0007	0.00006	mg/L				8.89%
Cr 267.716	-1.0	-0.0001	0.00014	mg/L				147.31%

Cu 324.754	70.2	0.0014	0.00061 mg/L	44.29%
Fe 259.940	2.9	0.0001	0.00014 mg/L	97.32%
K 766.491	-71.1	-0.0164	0.02274 mg/L	138.99%
Mg 279.079	8.1	0.0033	0.00875 mg/L	268.39%
Mn 257.610	-5.0	-0.0001	0.00002 mg/L	44.37%
Mo 202.030	1.7	0.0013	0.00166 mg/L	124.55%
Na 589.592	168.4	0.0165	0.00102 mg/L	6.15%
Ni 231.604	-0.6	-0.0002	0.00134 mg/L	886.54%
Sr 421.552	407.2	0.0006	0.00012 mg/L	21.49%
Sn 189.933	-0.2	-0.0007	0.00524 mg/L	766.13%
Ti 334.941	54.2	0.0004	0.00064 mg/L	160.06%
V 310.230	24.5	0.0004	0.00252 mg/L	628.92%
Zn 206.191	-0.4	-0.0001	0.00008 mg/L	92.28%

Mean Data

ID: R0901771-001A      Seq. No.: 26      Sample No.: 11      A/S Pos: 19  
 Sample Qty: 1.0000 mL      Prep. Vol.: 1.0 mL      Dilution: 1.0: 1.0  
 Data: Original      Date: 4/8/09      11:52:56 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	501010.7	1.007	0.0663	mg/L				6.59%
Ag 328.068	1626.0	0.0449	0.00141	mg/L	0.0449	0.00141	mg/L	3.13%
Al 308.215	5398.1	2.068	0.0039	mg/L	2.068	0.0039	mg/L	0.19%
B 249.773	12643.3	1.094	0.0063	mg/L	1.094	0.0063	mg/L	0.58%
Ba 233.527	28834.0	2.023	0.0084	mg/L	2.023	0.0084	mg/L	0.42%
Be 313.042	57351.1	0.0501	0.00014	mg/L	0.0501	0.00014	mg/L	0.29%
Ca 317.933	2204186.7	98.00	0.826	mg/L	98.00	0.826	mg/L	0.84%
Co 228.616	2653.7	0.5281	0.01145	mg/L	0.5281	0.01145	mg/L	2.17%
Cr 267.716	2219.3	0.2112	0.00565	mg/L	0.2112	0.00565	mg/L	2.68%
Cu 324.754	15399.1	0.3030	0.00101	mg/L	0.3030	0.00101	mg/L	0.33%
Fe 259.940	24216.6	1.166	0.0030	mg/L	1.166	0.0030	mg/L	0.26%
K 766.491	110056.7	25.33	0.153	mg/L	25.33	0.153	mg/L	0.60%
Mg 279.079	64038.1	25.72	0.087	mg/L	25.72	0.087	mg/L	0.34%
Mn 257.610	52056.8	0.5216	0.00103	mg/L	0.5216	0.00103	mg/L	0.20%
Mo 202.030	156.1	0.1251	0.00372	mg/L	0.1251	0.00372	mg/L	2.97%
Na 589.592	4299671.6	422.1	0.88	mg/L	422.1	0.88	mg/L	0.21%
Ni 231.604	2135.1	0.5716	0.01888	mg/L	0.5716	0.01888	mg/L	3.30%
Sr 421.552	186923.6	0.2656	0.00267	mg/L	0.2656	0.00267	mg/L	1.00%
Sn 189.933	0.1	0.0005	0.02257	mg/L	0.0005	0.02257	mg/L	>999.9%
Ti 334.941	-63.0	-0.0005	0.00021	mg/L	-0.0005	0.00021	mg/L	44.68%
V 310.230	31677.4	0.5168	0.00482	mg/L	0.5168	0.00482	mg/L	0.93%
Zn 206.191	2350.4	0.5304	0.01599	mg/L	0.5304	0.01599	mg/L	3.01%

Run stopped to reanalyze R0901771-0015

Calibration Summary

Method: Radial 200.7/6010b

Date: 4/8/09

11:53:53 AM

Element	Stds	Equation	Intercept	Slope	Curvature	Corr. Coeff.
Ag 328.068	3	Linear-thru-Zero	0.0	36182.7	0.00000	0.999990
Al 308.215	3	Linear-thru-Zero	0.0	2609.8	0.00000	0.999991
B 249.773	3	Linear-thru-Zero	0.0	11557.9	0.00000	0.999978
Ba 233.527	3	Linear-thru-Zero	0.0	14250.8	0.00000	0.999976
Be 313.042	3	Linear-thru-Zero	0.0	1144739.0	0.00000	0.999993
Ca 317.933	3	Linear-thru-Zero	0.0	22491.7	0.00000	0.999985
Co 228.616	3	Linear-thru-Zero	0.0	5024.6	0.00000	0.999956
Cr 267.716	3	Linear-thru-Zero	0.0	10509.9	0.00000	0.999975
Cu 324.754	3	Linear-thru-Zero	0.0	50827.4	0.00000	0.999979
Fe 259.940	3	Linear-thru-Zero	0.0	20774.0	0.00000	0.999983
K 766.491	3	Linear-thru-Zero	0.0	4344.2	0.00000	0.999996
Mg 279.079	3	Linear-thru-Zero	0.0	2489.7	0.00000	0.999991
Mn 257.610	3	Linear-thru-Zero	0.0	99801.2	0.00000	0.999982
Mo 202.030	3	Linear-thru-Zero	0.0	1247.9	0.00000	0.999994
Na 589.592	3	Linear-thru-Zero	0.0	10186.9	0.00000	0.999997
Ni 231.604	3	Linear-thru-Zero	0.0	3735.6	0.00000	0.999940
Sr 421.552	3	Linear-thru-Zero	0.0	703781.7	0.00000	0.999995
Sn 189.933	3	Linear-thru-Zero	0.0	231.9	0.00000	0.999954
Ti 334.941	3	Linear-thru-Zero	0.0	134779.1	0.00000	1.000000
V 310.230	3	Linear-thru-Zero	0.0	61291.9	0.00000	0.999995
Zn 206.191	3	Linear-thru-Zero	0.0	4431.3	0.00000	0.999930

4/8/09  
Dob

Method: Radial 200.7/6010b

IEC: 032709.iec

MSF:



Results: Apr08a  
Sample Info: 2007

Spectra Stored: Yes  
User: User1

Method Stored: Yes  
Date: 4/8/09 11:53:53 AM

Method Description: Radial 200.7/6010b 8/08

Calibration Summary

Date: 4/8/09

11:54:44 AM

Method: Radial 200.7/6010b

Element	Stds	Equation	Intercept	Slope	Curvature	Corr. Coeff.
Ag 328.068	3	Linear-thru-Zero	0.0	36182.7	0.00000	0.999990
Al 308.215	3	Linear-thru-Zero	0.0	2609.8	0.00000	0.999991
B 249.773	3	Linear-thru-Zero	0.0	11557.9	0.00000	0.999978
Ba 233.527	3	Linear-thru-Zero	0.0	14250.8	0.00000	0.999976
Be 313.042	3	Linear-thru-Zero	0.0	1144739.0	0.00000	0.999993
Ca 317.933	3	Linear-thru-Zero	0.0	22491.7	0.00000	0.999985
Co 228.616	3	Linear-thru-Zero	0.0	5024.6	0.00000	0.999956
Cr 267.716	3	Linear-thru-Zero	0.0	10509.9	0.00000	0.999975
Cu 324.754	3	Linear-thru-Zero	0.0	50827.4	0.00000	0.999979
Fe 259.940	3	Linear-thru-Zero	0.0	20774.0	0.00000	0.999983
K 766.491	3	Linear-thru-Zero	0.0	4344.2	0.00000	0.999996
Mg 279.079	3	Linear-thru-Zero	0.0	2489.7	0.00000	0.999991
Mn 257.610	3	Linear-thru-Zero	0.0	99801.2	0.00000	0.999982
Mo 202.030	3	Linear-thru-Zero	0.0	1247.9	0.00000	0.999994
Na 589.592	3	Linear-thru-Zero	0.0	10186.9	0.00000	0.999997
Ni 231.604	3	Linear-thru-Zero	0.0	3735.6	0.00000	0.999940
Sr 421.552	3	Linear-thru-Zero	0.0	703781.7	0.00000	0.999995
Sn 189.933	3	Linear-thru-Zero	0.0	231.9	0.00000	0.999954
Ti 334.941	3	Linear-thru-Zero	0.0	134779.1	0.00000	1.000000
V 310.230	3	Linear-thru-Zero	0.0	61291.9	0.00000	0.999995
Zn 206.191	3	Linear-thru-Zero	0.0	4431.3	0.00000	0.999930

Mean Data

ID: R0901771-001AS  
Sample Qty: 1.0000 mL

Seq. No.: 20  
Prep. Vol.:  
Data: Original

Sample No.: 11  
1.0 mL

A/S Pos: 19  
Dilution: 1.0: 1.0  
Date: 4/8/09 11:56:51 AM

Element	Mean Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	503612.5	1.012	0.0517	mg/L	0.0509	0.00204	mg/L	5.11%
Ag 328.068	1839.9	0.0509	0.00204	mg/L	2.164	0.0426	mg/L	4.01%
Al 308.215	5647.9	2.164	0.0426	mg/L	1.134	0.0202	mg/L	1.97%
B 249.773	13108.2	1.134	0.0202	mg/L	2.006	0.0024	mg/L	1.78%
Ba 233.527	28582.3	2.006	0.0024	mg/L	0.0501	0.0012	mg/L	0.12%
Be 313.042	57305.0	0.0501	0.00012	mg/L	99.81	0.286	mg/L	0.24%
Ca 317.933	2244946.5	99.81	0.286	mg/L	0.5365	0.01131	mg/L	0.29%
Co 228.616	2695.7	0.5365	0.01131	mg/L	0.2115	0.00309	mg/L	2.11%
Cr 267.716	2223.1	0.2115	0.00309	mg/L	0.3030	0.00088	mg/L	1.46%
Cu 324.754	15399.2	0.3030	0.00088	mg/L	1.148	0.0053	mg/L	0.29%
Fe 259.940	23849.0	1.148	0.0053	mg/L	25.13	0.163	mg/L	0.46%
K 766.491	109181.5	25.13	0.163	mg/L	25.64	0.072	mg/L	0.65%
Mg 279.079	63847.1	25.64	0.072	mg/L	0.5159	0.00140	mg/L	0.28%
Mn 257.610	51486.9	0.5159	0.00140	mg/L	0.6443	0.00874	mg/L	0.27%
Mo 202.030	804.0	0.6443	0.00874	mg/L	433.8	2.25	mg/L	1.36%
Na 589.592	4419012.3	433.8	2.25	mg/L	0.5793	0.01125	mg/L	0.52%
Ni 231.604	2164.1	0.5793	0.01125	mg/L	2.288	0.0077	mg/L	1.94%
Sr 421.552	1610370.7	2.288	0.0077	mg/L	5.503	0.1002	mg/L	0.34%
Sn 189.933	1276.0	5.503	0.1002	mg/L	0.5018	0.00068	mg/L	1.82%
Ti 334.941	67631.4	0.5018	0.00068	mg/L	0.5118	0.00128	mg/L	0.14%
V 310.230	31372.2	0.5118	0.00128	mg/L	0.5319	0.01016	mg/L	0.25%
Zn 206.191	2357.1	0.5319	0.01016	mg/L				1.91%

Mean Data

ID: R0901771-001L  
Sample Qty: 1.0000 mL

Seq. No.: 21  
Prep. Vol.:  
Data: Original

Sample No.: 12  
1.0 mL

A/S Pos: 20  
Dilution: 1.0: 1.0  
Date: 4/8/09 12:02:36 PM

Element	Mean Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	560942.1	1.127	0.0801	mg/L	-0.0008	0.00086	mg/L	7.10%
Ag 328.068	-28.4	-0.0008	0.00086	mg/L	0.0208	0.01134	mg/L	109.92%
Al 308.215	54.3	0.0208	0.01134	mg/L				54.57%

B 249.773	81.6	0.0071	0.00230 mg/L	0.0071	0.00230 mg/L	32.63%
Ba 233.527	95.1	0.0067	0.00078 mg/L	0.0067	0.00078 mg/L	11.71%
Be 313.042	-13.6	0.0000	0.00005 mg/L	0.0000	0.00005 mg/L	413.47%
Ca 317.933	440514.7	19.59	0.017 mg/L	19.59	0.017 mg/L	0.09%
Co 228.616	0.7	0.0001	0.00040 mg/L	0.0001	0.00040 mg/L	273.35%
Cr 267.716	13.2	0.0013	0.00073 mg/L	0.0013	0.00073 mg/L	57.87%
Cu 324.754	451.4	0.0089	0.00081 mg/L	0.0089	0.00081 mg/L	9.07%
Fe 259.940	545.9	0.0263	0.00063 mg/L	0.0263	0.00063 mg/L	2.41%
K 766.491	4257.5	0.9800	0.01918 mg/L	0.9800	0.01918 mg/L	1.96%
Mg 279.079	11800.3	4.740	0.0484 mg/L	4.740	0.0484 mg/L	1.02%
Mn 257.610	140.3	0.0014	0.00011 mg/L	0.0014	0.00011 mg/L	8.07%
Mo 202.030	30.8	0.0247	0.00081 mg/L	0.0247	0.00081 mg/L	3.28%
Na 589.592	855628.5	83.99	0.049 mg/L	83.99	0.049 mg/L	0.06%
Ni 231.604	25.0	0.0067	0.00026 mg/L	0.0067	0.00026 mg/L	3.87%
Sr 421.552	38229.4	0.0543	0.00137 mg/L	0.0543	0.00137 mg/L	2.52%
Sn 189.933	-1.0	-0.0042	0.00047 mg/L	-0.0042	0.00047 mg/L	10.98%
Ti 334.941	33.1	0.0002	0.00018 mg/L	0.0002	0.00018 mg/L	72.25%
V 310.230	18.6	0.0003	0.00228 mg/L	0.0003	0.00228 mg/L	750.44%
Zn 206.191	30.2	0.0068	0.00072 mg/L	0.0068	0.00072 mg/L	10.52%

Mean Data

ID: R0901823-001 1/1000      Seq. No.: 22      Sample No.: 13      A/S Pos: 21  
 Sample Qty: 1.0000 mL      Prep. Vol.: 1.0 mL      Dilution: 1.0: 1000.0  
 Data: Original      Date: 4/8/09      12:08:18 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	559883.8	1.125	0.0618	mg/L	-0.5627	0.93968	mg/L	5.49%
Ag 328.068	-20.4	-0.0006	0.00094	mg/L	-4.339	2.6844	mg/L	166.99%
Al 308.215	-11.3	-0.0043	0.00268	mg/L	2.426	1.0098	mg/L	61.86%
B 249.773	28.0	0.0024	0.00101	mg/L	-0.0835	0.23195	mg/L	41.63%
Ba 233.527	-1.2	-0.0001	0.00023	mg/L	-0.0182	0.03060	mg/L	277.91%
Be 313.042	-20.9	0.0000	0.00003	mg/L	2004	30.2	mg/L	167.75%
Ca 317.933	45065.0	2.004	0.0302	mg/L	0.1957	0.54042	mg/L	1.51%
Co 228.616	1.0	0.0002	0.00054	mg/L	-0.1371	0.10785	mg/L	276.13%
Cr 267.716	-1.4	-0.0001	0.00011	mg/L	0.5603	0.14420	mg/L	78.67%
Cu 324.754	28.5	0.0006	0.00014	mg/L	2.823	0.3448	mg/L	25.73%
Fe 259.940	58.6	0.0028	0.00034	mg/L	1023	22.6	mg/L	12.21%
K 766.491	4442.5	1.023	0.0226	mg/L	308.0	2.38	mg/L	2.21%
Mg 279.079	766.7	0.3080	0.00238	mg/L	0.3922	2.38	mg/L	0.77%
Mn 257.610	39.1	0.0004	0.00007	mg/L	0.1220	0.07022	mg/L	17.90%
Mo 202.030	0.2	0.0001	0.00202	mg/L	2.01582	2.01582	mg/L	>999.9%
Na 589.592	323125.1	31.72	0.040	mg/L	31720	40.1	mg/L	0.13%
Ni 231.604	2.1	0.0006	0.00002	mg/L	0.5656	0.01786	mg/L	3.16%
Sr 421.552	31922.6	0.0454	0.00105	mg/L	45.36	1.045	mg/L	2.30%
Sn 189.933	-0.4	-0.0016	0.00052	mg/L	-1.581	0.5190	mg/L	32.82%
Ti 334.941	42.8	0.0003	0.00007	mg/L	0.3172	0.06512	mg/L	20.53%
V 310.230	44.4	0.0007	0.00271	mg/L	0.7236	2.70607	mg/L	373.97%
Zn 206.191	21.1	0.0048	0.00027	mg/L	4.755	0.2725	mg/L	5.73%

Mean Data

ID: R0901679-003 1/10      Seq. No.: 23      Sample No.: 14      A/S Pos: 22  
 Sample Qty: 1.0000 mL      Prep. Vol.: 1.0 mL      Dilution: 1.0: 10.0  
 Data: Original      Date: 4/8/09      12:14:00 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	585604.7	1.177	0.0816	mg/L	-0.0304	0.00271	mg/L	6.93%
Ag 328.068	-110.1	-0.0030	0.00027	mg/L	0.0480	0.12266	mg/L	8.92%
Al 308.215	12.5	0.0048	0.01227	mg/L	1.382	0.0680	mg/L	255.39%
B 249.773	1597.8	0.1382	0.00680	mg/L	0.2217	0.01627	mg/L	4.92%
Ba 233.527	315.9	0.0222	0.00163	mg/L	-0.0001	0.00062	mg/L	7.34%
Be 313.042	-16.5	0.0000	0.00006	mg/L	213.7	0.24	mg/L	428.08%
Ca 317.933	480565.6	21.37	0.024	mg/L	-0.0002	0.00439	mg/L	0.11%
Co 228.616	-0.1	0.0000	0.00044	mg/L	0.0035	0.00378	mg/L	>999.9%
Cr 267.716	3.7	0.0004	0.00038	mg/L	0.0081	0.00740	mg/L	106.78%
Cu 324.754	41.4	0.0008	0.00074	mg/L	51.71	0.00740	mg/L	90.88%
Fe 259.940	107426.5	5.171	0.0028	mg/L	7.298	0.028	mg/L	0.05%
K 766.491	3170.3	0.7298	0.01699	mg/L	139.7	0.1699	mg/L	2.33%
Mg 279.079	34783.7	13.97	0.401	mg/L	0.4837	4.01	mg/L	2.87%
Mn 257.610	4827.7	0.0484	0.00104	mg/L	-0.0184	0.01045	mg/L	2.16%
Mo 202.030	-2.3	-0.0018	0.00008	mg/L	103.3	0.00085	mg/L	4.59%
Na 589.592	105221.9	10.33	0.023	mg/L		0.23	mg/L	0.22%

Ni 231.604	2.9	0.0008	0.00005 mg/L	0.0078	0.00053 mg/L	6.74%
Sr 421.552	46494.4	0.0661	0.00028 mg/L	0.6606	0.00275 mg/L	0.42%
Sn 189.933	-2.3	-0.0101	0.01161 mg/L	-0.1011	0.11608 mg/L	114.85%
Ti 334.941	-17.5	-0.0001	0.00058 mg/L	-0.0013	0.00581 mg/L	447.58%
V 310.230	-73.0	-0.0012	0.00224 mg/L	-0.0119	0.02237 mg/L	187.83%
Zn 206.191	3909.5	0.8823	0.04126 mg/L	8.823	0.4126 mg/L	4.68%

Mean Data

ID: R0901679-004 1/10      Seq. No.: 24      Sample No.: 15      A/S Pos: 23  
 Sample Qty: 1.0000 mL      Prep. Vol.: 1.0 mL      Dilution: 1.0: 10.0  
 Data: Original      Date: 4/8/09      12:19:43 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev. Units	Sample RSD
Y 371.030	569912.3	1.145	0.0681	mg/L			5.95%
Ag 328.068	-30.3	-0.0008	0.00114	mg/L	-0.0084	0.01143 mg/L	136.31%
Al 308.215	13.0	0.0050	0.01078	mg/L	0.0497	0.10784 mg/L	217.16%
B 249.773	1672.1	0.1447	0.00550	mg/L	1.447	0.0550 mg/L	3.80%
Ba 233.527	342.0	0.0240	0.00093	mg/L	0.2400	0.00934 mg/L	3.89%
Be 313.042	-20.0	0.0000	0.00002	mg/L	-0.0002	0.00018 mg/L	104.53%
Ca 317.933	494931.8	22.01	0.040	mg/L	220.1	0.40 mg/L	0.18%
Co 228.616	6.8	0.0014	0.00007	mg/L	0.0135	0.00069 mg/L	5.12%
Cr 267.716	7.2	0.0007	0.00143	mg/L	0.0069	0.01434 mg/L	208.72%
Cu 324.754	1.3	0.0000	0.00090	mg/L	0.0003	0.00898 mg/L	>999.9%
Fe 259.940	120552.8	5.803	0.0071	mg/L	58.03	0.071 mg/L	0.12%
K 766.491	3443.1	0.7926	0.01433	mg/L	7.926	0.1433 mg/L	1.81%
Mg 279.079	36034.8	14.47	0.105	mg/L	144.7	1.05 mg/L	0.73%
Mn 257.610	5024.9	0.0503	0.00000	mg/L	0.5035	0.00005 mg/L	0.01%
Mo 202.030	-1.1	-0.0009	0.00139	mg/L	-0.0089	0.01391 mg/L	155.52%
Na 589.592	107840.4	10.59	0.037	mg/L	105.9	0.37 mg/L	0.35%
Ni 231.604	3.4	0.0009	0.00187	mg/L	0.0090	0.01869 mg/L	207.98%
Sr 421.552	47911.6	0.0681	0.00006	mg/L	0.6808	0.00060 mg/L	0.09%
Sn 189.933	-0.1	-0.0006	0.01026	mg/L	-0.0057	0.10264 mg/L	>999.9%
Ti 334.941	-8.4	-0.0001	0.00023	mg/L	-0.0006	0.00229 mg/L	366.94%
V 310.230	-12.0	-0.0002	0.00271	mg/L	-0.0020	0.02706 mg/L	>999.9%
Zn 206.191	4272.2	0.9641	0.03677	mg/L	9.641	0.3677 mg/L	3.81%

Mean Data

ID: R0901679-006 1/10      Seq. No.: 25      Sample No.: 16      A/S Pos: 24  
 Sample Qty: 1.0000 mL      Prep. Vol.: 1.0 mL      Dilution: 1.0: 10.0  
 Data: Original      Date: 4/8/09      12:25:23 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev. Units	Sample RSD
Y 371.030	609011.8	1.224	0.0797	mg/L			6.51%
Ag 328.068	-69.1	-0.0019	0.00029	mg/L	-0.0191	0.00293 mg/L	15.32%
Al 308.215	29.0	0.0111	0.01173	mg/L	0.1112	0.11727 mg/L	105.48%
B 249.773	466.6	0.0404	0.00327	mg/L	0.4037	0.03270 mg/L	8.10%
Ba 233.527	356.7	0.0250	0.00132	mg/L	0.2503	0.01324 mg/L	5.29%
Be 313.042	-27.8	0.0000	0.00006	mg/L	-0.0002	0.00064 mg/L	262.29%
Ca 317.933	179464.0	7.979	0.0209	mg/L	79.79	0.209 mg/L	0.26%
Co 228.616	0.5	0.0001	0.00022	mg/L	0.0010	0.00222 mg/L	216.73%
Cr 267.716	2.8	0.0003	0.00050	mg/L	0.0026	0.00497 mg/L	187.62%
Cu 324.754	53.5	0.0011	0.00019	mg/L	0.0105	0.00192 mg/L	18.20%
Fe 259.940	12132.4	0.5840	0.01679	mg/L	5.840	0.1679 mg/L	2.88%
K 766.491	2349.6	0.5409	0.02412	mg/L	5.409	0.2412 mg/L	4.46%
Mg 279.079	9501.7	3.816	0.1077	mg/L	38.16	1.077 mg/L	2.82%
Mn 257.610	800.1	0.0080	0.00052	mg/L	0.0802	0.00516 mg/L	6.43%
Mo 202.030	0.2	0.0002	0.00132	mg/L	0.0018	0.01324 mg/L	731.03%
Na 589.592	294212.6	28.88	0.072	mg/L	288.8	0.72 mg/L	0.25%
Ni 231.604	2.5	0.0007	0.00039	mg/L	0.0066	0.00390 mg/L	59.00%
Sr 421.552	32469.0	0.0461	0.00115	mg/L	0.4614	0.01153 mg/L	2.50%
Sn 189.933	0.3	0.0012	0.00376	mg/L	0.0116	0.03756 mg/L	323.38%
Ti 334.941	79.4	0.0006	0.00028	mg/L	0.0059	0.00277 mg/L	47.10%
V 310.230	-222.3	-0.0036	0.00150	mg/L	-0.0363	0.01503 mg/L	41.45%
Zn 206.191	5049.0	1.139	0.0219	mg/L	11.39	0.219 mg/L	1.92%

Mean Data

ID: R0901679-007 1/10      Seq. No.: 26      Sample No.: 17      A/S Pos: 25  
 Sample Qty: 1.0000 mL      Prep. Vol.: 1.0 mL      Dilution: 1.0: 10.0  
 Data: Original      Date: 4/8/09      12:30:56 PM

Mean Corr.      Mean      Calib      Mean      Sample

Element	Intensity	Conc.	Std.Dev.	Units	Conc.	Std.Dev.	Units	RSD
Y 371.030	577719.3	1.161	0.0930	mg/L				8.01%
Ag 328.068	-85.7	-0.0024	0.00080	mg/L	-0.0237	0.00795	mg/L	33.57%
Al 308.215	10.0	0.0038	0.00227	mg/L	0.0384	0.02270	mg/L	59.03%
B 249.773	428.4	0.0371	0.00289	mg/L	0.3706	0.02888	mg/L	7.79%
Ba 233.527	664.7	0.0466	0.00316	mg/L	0.4664	0.03160	mg/L	6.78%
Be 313.042	-13.5	0.0000	0.00003	mg/L	-0.0001	0.00026	mg/L	224.08%
Ca 317.933	251894.2	11.20	0.030	mg/L	112.0	0.30	mg/L	0.27%
Co 228.616	-1.9	-0.0004	0.00028	mg/L	-0.0038	0.00283	mg/L	73.65%
Cr 267.716	-3.2	-0.0003	0.00021	mg/L	-0.0030	0.00205	mg/L	67.92%
Cu 324.754	-17.8	-0.0004	0.00041	mg/L	-0.0035	0.00410	mg/L	116.99%
Fe 259.940	56962.4	2.742	0.0054	mg/L	27.42	0.054	mg/L	0.20%
K 766.491	6007.5	1.383	0.0103	mg/L	13.83	0.103	mg/L	0.75%
Mg 279.079	17286.9	6.943	0.0197	mg/L	69.43	0.197	mg/L	0.28%
Mn 257.610	1683.8	0.0169	0.00008	mg/L	0.1687	0.00081	mg/L	0.48%
Mo 202.030	-1.3	-0.0011	0.00125	mg/L	-0.0105	0.01247	mg/L	118.22%
Na 589.592	44490.6	4.367	0.0098	mg/L	43.67	0.098	mg/L	0.22%
Ni 231.604	-3.0	-0.0008	0.00005	mg/L	-0.0080	0.00053	mg/L	6.65%
Sr 421.552	44892.5	0.0638	0.00009	mg/L	0.6379	0.00085	mg/L	0.13%
Sn 189.933	0.7	0.0029	0.01221	mg/L	0.0295	0.12210	mg/L	414.57%
Ti 334.941	6.6	0.0000	0.00017	mg/L	0.0005	0.00169	mg/L	344.55%
V 310.230	29.7	0.0005	0.00299	mg/L	0.0048	0.02989	mg/L	617.73%
Zn 206.191	3399.2	0.7671	0.04529	mg/L	7.671	0.4529	mg/L	5.90%

Mean Data

ID: R0901679-008 1/10      Seq. No.: 27      Sample No.: 18      A/S Pos: 26  
 Sample Qty: 1.0000 mL      Prep. Vol.: 1.0 mL      Dilution: 1.0: 10.0  
 Data: Original      Date: 4/8/09      12:36:26 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	572406.9	1.150	0.0807	mg/L				7.02%
Ag 328.068	-31.5	-0.0009	0.00147	mg/L	-0.0087	0.01473	mg/L	169.34%
Al 308.215	111.9	0.0429	0.01326	mg/L	0.4286	0.13263	mg/L	30.95%
B 249.773	-95.8	-0.0083	0.00059	mg/L	-0.00829	0.00589	mg/L	7.10%
Ba 233.527	38.2	0.0027	0.00037	mg/L	0.0268	0.00369	mg/L	13.78%
Be 313.042	-6.6	0.0000	0.00009	mg/L	-0.0001	0.00094	mg/L	>999.9%
Ca 317.933	206098.6	9.163	0.0228	mg/L	91.63	0.228	mg/L	0.25%
Co 228.616	2.8	0.0006	0.00013	mg/L	0.0055	0.00129	mg/L	23.40%
Cr 267.716	8.0	0.0008	0.00034	mg/L	0.0076	0.00340	mg/L	44.61%
Cu 324.754	52.6	0.0010	0.00119	mg/L	0.0103	0.01188	mg/L	114.89%
Fe 259.940	5123.8	0.2466	0.00167	mg/L	2.466	0.0167	mg/L	0.68%
K 766.491	666.6	0.1535	0.00492	mg/L	1.535	0.0492	mg/L	3.21%
Mg 279.079	8556.5	3.437	0.0259	mg/L	34.37	0.259	mg/L	0.75%
Mn 257.610	121.9	0.0012	0.00006	mg/L	0.0122	0.00056	mg/L	4.59%
Mo 202.030	-0.2	-0.0001	0.00187	mg/L	-0.0014	0.01869	mg/L	>999.9%
Na 589.592	6129.2	0.6017	0.00568	mg/L	6.017	0.0568	mg/L	0.94%
Ni 231.604	1.9	0.0005	0.00030	mg/L	0.0050	0.00300	mg/L	60.36%
Sr 421.552	21182.8	0.0301	0.00011	mg/L	0.3010	0.00107	mg/L	0.36%
Sn 189.933	0.2	0.0009	0.00262	mg/L	0.0090	0.02617	mg/L	292.36%
Ti 334.941	99.7	0.0007	0.00022	mg/L	0.0074	0.00215	mg/L	29.08%
V 310.230	-44.7	-0.0007	0.00351	mg/L	-0.0073	0.03505	mg/L	480.94%
Zn 206.191	1027.9	0.2320	0.00977	mg/L	2.320	0.0977	mg/L	4.21%

Mean Data

ID: R0901679-008L 1/10      Seq. No.: 28      Sample No.: 19      A/S Pos: 27  
 Sample Qty: 1.0000 mL      Prep. Vol.: 1.0 mL      Dilution: 1.0: 10.0  
 Data: Original      Date: 4/8/09      12:41:56 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	580156.1	1.166	0.0957	mg/L				8.20%
Ag 328.068	-45.2	-0.0012	0.00026	mg/L	-0.0125	0.00263	mg/L	21.09%
Al 308.215	-2.8	-0.0011	0.01420	mg/L	-0.0109	0.14196	mg/L	>999.9%
B 249.773	-130.0	-0.0112	0.00065	mg/L	-0.1125	0.00651	mg/L	5.79%
Ba 233.527	0.2	0.0000	0.00013	mg/L	0.0001	0.00129	mg/L	990.19%
Be 313.042	-58.6	-0.0001	0.00006	mg/L	-0.0005	0.00063	mg/L	123.41%
Ca 317.933	41410.7	1.841	0.0049	mg/L	18.41	0.049	mg/L	0.27%
Co 228.616	-0.4	-0.0001	0.00016	mg/L	-0.0008	0.00159	mg/L	187.84%
Cr 267.716	4.2	0.0004	0.00030	mg/L	0.0040	0.00295	mg/L	74.40%
Cu 324.754	23.0	0.0005	0.00011	mg/L	0.0045	0.00109	mg/L	24.14%
Fe 259.940	1015.1	0.0489	0.00140	mg/L	0.4886	0.01404	mg/L	2.87%
K 766.491	86.0	0.0198	0.01403	mg/L	0.1980	0.14030	mg/L	70.84%



Sample Qty: 1.0000 g      Prep. Vol.: 1.0 L      Dilution: 1.0: 1.0  
 Data: Original      Date: 4/8/09      12:58:42 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	546281.0	1.098	0.1042	mg/L				9.49%
Ag 328.068	339.7	0.0094	0.00054	mg/L				5.79%
Al 308.215	531.8	0.2037	0.02224	mg/L				10.92%
B 249.773	2313.6	0.2002	0.00174	mg/L				0.87%
Ba 233.527	3227.9	0.2265	0.01336	mg/L				5.90%
Be 313.042	5854.3	0.0051	0.00005	mg/L				1.06%
Ca 317.933	24124.0	1.073	0.0002	mg/L				0.02%
Co 228.616	285.5	0.0568	0.00431	mg/L				7.58%
Cr 267.716	121.0	0.0115	0.00204	mg/L				17.69%
Cu 324.754	1391.9	0.0274	0.00070	mg/L				2.57%
Fe 259.940	2190.3	0.1054	0.00228	mg/L				2.16%
K 766.491	4516.8	1.040	0.0433	mg/L				4.17%
Mg 279.079	2663.8	1.070	0.0122	mg/L				1.14%
Mn 257.610	1603.4	0.0161	0.00024	mg/L				1.48%
Mo 202.030	32.2	0.0258	0.00190	mg/L				7.36%
Na 589.592	10756.7	1.056	0.0035	mg/L				0.33%
Ni 231.604	166.6	0.0446	0.00292	mg/L				6.56%
Sr 421.552	74065.2	0.1052	0.00041	mg/L				0.39%
Sn 189.933	125.9	0.5431	0.05477	mg/L				10.08%
Ti 334.941	6919.5	0.0513	0.00005	mg/L				0.10%
V 310.230	3149.3	0.0514	0.00264	mg/L				5.14%
Zn 206.191	102.3	0.0231	0.00137	mg/L				5.94%

Mean Data

ID: ICSA      Seq. No.: 32      Sample No.: 4      A/S Pos: 7  
 Sample Qty: 1.0000 g      Prep. Vol.: 1.0 L      Dilution: 1.0: 1.0  
 Data: Original      Date: 4/8/09      1:04:28 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	525361.6	1.056	0.0407	mg/L				3.86%
Ag 328.068	-573.4	0.0002	0.00069	mg/L				292.61%
Al 308.215	1336417.5	512.1	3.14	mg/L				0.61%
B 249.773	1833.6	-0.0768	0.00825	mg/L				10.74%
Ba 233.527	115.6	0.0081	0.00077	mg/L				9.50%
Be 313.042	59.6	0.0001	0.00001	mg/L				20.76%
Ca 317.933	11406249.4	507.1	5.87	mg/L				1.16%
Co 228.616	10.6	0.0021	0.00019	mg/L				9.09%
Cr 267.716	-104.8	-0.0034	0.00035	mg/L				10.30%
Cu 324.754	-1866.6	0.0085	0.00098	mg/L				11.62%
Fe 259.940	4038405.0	194.4	1.58	mg/L				0.81%
K 766.491	-130.8	-0.0301	0.04065	mg/L				134.96%
Mg 279.079	1299284.4	521.9	3.84	mg/L				0.74%
Mn 257.610	2170.4	0.0039	0.00004	mg/L				1.10%
Mo 202.030	-14.4	-0.0115	0.00049	mg/L				4.28%
Na 589.592	118.6	0.0116	0.01332	mg/L				114.37%
Ni 231.604	16.0	0.0043	0.00005	mg/L				1.07%
Sr 421.552	3339.9	-0.0989	0.00106	mg/L				1.07%
Sn 189.933	1.0	-0.1553	0.00757	mg/L				4.88%
Ti 334.941	-205.1	-0.0015	0.00009	mg/L				6.06%
V 310.230	277.0	0.0045	0.00190	mg/L				42.09%
Zn 206.191	24.3	-0.0054	0.00048	mg/L				8.91%

Mean Data

ID: ICSAB      Seq. No.: 33      Sample No.: 5      A/S Pos: 8  
 Sample Qty: 1.0000 g      Prep. Vol.: 1.0 L      Dilution: 1.0: 1.0  
 Data: Original      Date: 4/8/09      1:10:27 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	530812.0	1.067	0.0352	mg/L				3.30%
Ag 328.068	36869.9	1.035	0.0027	mg/L				0.26%
Al 308.215	1320435.0	505.9	1.56	mg/L				0.31%
B 249.773	1779.0	-0.0781	0.00636	mg/L				8.15%
Ba 233.527	7070.8	0.4962	0.01191	mg/L				2.40%
Be 313.042	557556.2	0.4871	0.00187	mg/L				0.38%
Ca 317.933	11161428.5	496.2	6.91	mg/L				1.39%
Co 228.616	2459.5	0.4895	0.01502	mg/L				3.07%

Cr 267.716	5077.3	0.4895	0.01011 mg/L	2.07%
Cu 324.754	23197.4	0.5009	0.00048 mg/L	0.10%
Fe 259.940	3978454.0	191.5	0.44 mg/L	0.23%
K 766.491	-69.8	-0.0161	0.02609 mg/L	162.33%
Mg 279.079	1278177.2	513.4	0.75 mg/L	0.15%
Mn 257.610	51133.4	0.4948	0.00185 mg/L	0.37%
Mo 202.030	-13.2	-0.0106	0.00232 mg/L	21.92%
Na 589.592	-0.5	0.0000	0.00490 mg/L	>999.9%
Ni 231.604	3575.2	0.9570	0.01743 mg/L	1.82%
Sr 421.552	3149.9	-0.0969	0.00141 mg/L	1.46%
Sn 189.933	1.4	-0.1500	0.01841 mg/L	12.27%
Ti 334.941	-183.3	-0.0014	0.00013 mg/L	9.79%
V 310.230	30561.5	0.4986	0.00052 mg/L	0.10%
Zn 206.191	4337.2	0.9681	0.02550 mg/L	2.63%

Mean Data

ID: HLCCV2      Seq. No.: 34      Sample No.: 9      A/S Pos: 103  
 Sample Qty: 1.0000 g      Prep. Vol.: 1.0 L      Dilution: 1.0: 1.0  
 Data: Original      Date: 4/8/09      1:16:08 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	533126.4	1.072	0.0093	mg/L				0.87%
Ag 328.068	66298.8	1.856	0.0299	mg/L				1.61%
Al 308.215	1292577.6	495.3	0.81	mg/L				0.16%
B 249.773	2685.7	-0.1126	0.00359	mg/L				3.19%
Ba 233.527	554948.0	38.94	0.016	mg/L				0.04%
Be 313.042	1101184.6	0.9620	0.00220	mg/L				0.23%
Ca 317.933	10631994.5	472.7	1.81	mg/L				0.38%
Co 228.616	47784.4	9.510	0.1641	mg/L				1.73%
Cr 267.716	98983.8	9.424	0.1819	mg/L				1.93%
Cu 324.754	252943.2	5.043	0.0035	mg/L				0.07%
Fe 259.940	5916762.6	284.8	1.49	mg/L				0.52%
K 766.491	1365119.0	314.2	0.93	mg/L				0.30%
Mg 279.079	1247725.3	501.2	0.02	mg/L				0.00%
Mn 257.610	958372.9	9.586	0.0055	mg/L				0.06%
Mo 202.030	11716.1	9.389	0.1727	mg/L				1.84%
Na 589.592	4092321.7	401.7	1.55	mg/L				0.39%
Ni 231.604	28426.0	7.609	0.1284	mg/L				1.69%
Sr 421.552	71373.2	0.0048	0.00059	mg/L				12.19%
Sn 189.933	1.1	-0.1440	0.02775	mg/L				19.26%
Ti 334.941	1303761.0	9.673	0.0014	mg/L				0.01%
V 310.230	597024.0	9.741	0.0045	mg/L				0.05%
Zn 206.191	16767.2	3.774	0.0416	mg/L				1.10%

Mean Data

ID: HLCCV1      Seq. No.: 35      Sample No.: 8      A/S Pos: 2  
 Sample Qty: 1.0000 g      Prep. Vol.: 1.0 L      Dilution: 1.0: 1.0  
 Data: Original      Date: 4/8/09      1:21:20 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	551923.0	1.109	0.0222	mg/L				2.00%
Ag 328.068	36714.9	1.015	0.0049	mg/L				0.48%
Al 308.215	52007.6	19.93	0.030	mg/L				0.15%
B 249.773	60951.7	5.274	0.0079	mg/L				0.15%
Ba 233.527	290501.6	20.38	0.011	mg/L				0.05%
Be 313.042	576188.3	0.5033	0.00024	mg/L				0.05%
Ca 317.933	2277039.5	101.2	0.14	mg/L				0.14%
Co 228.616	25646.5	5.104	0.0208	mg/L				0.41%
Cr 267.716	10487.1	0.9978	0.00593	mg/L				0.59%
Cu 324.754	129709.1	2.552	0.0012	mg/L				0.05%
Fe 259.940	210917.3	10.15	0.049	mg/L				0.48%
K 766.491	447022.5	102.9	0.45	mg/L				0.44%
Mg 279.079	252775.3	101.5	0.27	mg/L				0.27%
Mn 257.610	151672.0	1.520	0.0040	mg/L				0.26%
Mo 202.030	6266.5	5.022	0.0571	mg/L				1.14%
Na 589.592	1036345.2	101.7	0.34	mg/L				0.34%
Ni 231.604	15097.6	4.042	0.0507	mg/L				1.25%
Sr 421.552	3560225.2	5.059	0.0300	mg/L				0.59%
Sn 189.933	2355.6	10.16	0.128	mg/L				1.26%
Ti 334.941	676234.4	5.017	0.0076	mg/L				0.15%
V 310.230	309143.3	5.044	0.0020	mg/L				0.04%

Zn 206.191 9114.7 2.057 0.0157 mg/L 0.76%

Mean Data  
 ID: CCV Seq. No.: 36 Sample No.: 6 A/S Pos: 3  
 Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0  
 Date: Original Date: 4/8/09 1:26:48 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	560741.2	1.127	0.0476	mg/L				4.23%
Ag 328.068	18697.8	0.5168	0.00340	mg/L				0.66%
Al 308.215	25953.3	9.944	0.0031	mg/L				0.03%
B 249.773	29989.6	2.595	0.0050	mg/L				0.19%
Ba 233.527	139720.8	9.804	0.0537	mg/L				0.55%
Be 313.042	290076.7	0.2534	0.00002	mg/L				0.01%
Ca 317.933	1155959.5	51.40	0.757	mg/L				1.47%
Co 228.616	12825.5	2.553	0.0722	mg/L				2.83%
Cr 267.716	5464.3	0.5199	0.01486	mg/L				2.86%
Cu 324.754	64986.1	1.279	0.0048	mg/L				0.38%
Fe 259.940	106667.5	5.135	0.0190	mg/L				0.37%
K 766.491	221001.5	50.87	0.590	mg/L				1.16%
Mg 279.079	125909.3	50.57	0.270	mg/L				0.53%
Mn 257.610	76700.8	0.7685	0.00410	mg/L				0.53%
Mo 202.030	3136.7	2.514	0.0634	mg/L				2.52%
Na 589.592	511488.1	50.21	0.493	mg/L				2.52%
Ni 231.604	7763.2	2.078	0.0638	mg/L				0.98%
Sr 421.552	1756678.2	2.496	0.0383	mg/L				3.07%
Sn 189.933	1186.2	5.115	0.1474	mg/L				1.53%
Ti 334.941	328001.1	2.434	0.0034	mg/L				2.88%
V 310.230	154190.9	2.516	0.0064	mg/L				0.14%
Zn 206.191	4662.3	1.052	0.0313	mg/L				0.25%
								2.98%

Mean Data  
 ID: CCB Seq. No.: 37 Sample No.: 7 A/S Pos: 1  
 Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0  
 Date: Original Date: 4/8/09 1:32:22 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	566544.7	1.139	0.0955	mg/L				8.39%
Ag 328.068	-80.1	-0.0022	0.00135	mg/L				61.07%
Al 308.215	9.5	0.0036	0.00798	mg/L				219.90%
B 249.773	234.0	0.0202	0.00384	mg/L				18.98%
Ba 233.527	7.9	0.0006	0.00038	mg/L				68.51%
Be 313.042	-32.0	0.0000	0.00009	mg/L				324.77%
Ca 317.933	259.9	0.0116	0.00573	mg/L				49.57%
Co 228.616	6.8	0.0014	0.00037	mg/L				27.37%
Cr 267.716	3.4	0.0003	0.00006	mg/L				19.67%
Cu 324.754	-10.3	-0.0002	0.00005	mg/L				24.00%
Fe 259.940	41.4	0.0020	0.00067	mg/L				33.85%
K 766.491	-75.7	-0.0174	0.00214	mg/L				12.27%
Mg 279.079	4.4	0.0018	0.01711	mg/L				972.20%
Mn 257.610	11.9	0.0001	0.00008	mg/L				69.95%
Mo 202.030	0.9	0.0007	0.00115	mg/L				167.27%
Na 589.592	38.4	0.0038	0.00431	mg/L				114.30%
Ni 231.604	-1.2	-0.0003	0.00057	mg/L				176.38%
Sr 421.552	41.4	0.0001	0.00013	mg/L				214.52%
Sn 189.933	2.5	0.0108	0.00512	mg/L				47.23%
Ti 334.941	59.9	0.0004	0.00033	mg/L				74.75%
V 310.230	31.2	0.0005	0.00245	mg/L				481.71%
Zn 206.191	0.3	0.0001	0.00057	mg/L				754.18%



# Preparation Information Benchsheet

Prep Run#: 84988      Team: Metals/VKANE      Prep WorkFlow: MetDigAqICP      Status: Prepped      Prep Date/Time: 4/2/09 10:32  
 Client ID:      Prep Method: EPA 3010A

#	Lab Code	Client ID	B#	Amt. Ext.	Method /Test	pH	AE	BN	Final Vol	Sample Desc. (Initial/Final)	Spike Amt./Inv. ID	Comments
1	RQ0902213-01	MB		50mL	6010B/Cd T, Cr T, Fe T, K T, Zn T, Cd D, Cr D, Fe D, K D, Zn D	<2			50.00mL	Colorless-Clear		95c
2	RQ0902213-02	LCS		50mL	6010B/Cd D, Cd T, Cr D, Cr T, Fe D, Fe T, K D, K T, Zn D, Zn T	<2			50.00mL	Colorless-Clear	0.0500 mL/8044; 0.2500 mL/8343; 0.5000 mL/6507; 0.5000 mL/6508	
3	R0901679-001	WG-5513-032609-001	07	50mL	6010B/Fe T, K T, Zn T	<2			50.00mL	Colorless-Clear		THIR IV
4	RQ0902213-03	R0901679-001 DUP	07	50mL	6010B/Fe T, K T, Zn T	<2			50.00mL	Colorless-Clear		
5	RQ0902213-04	R0901679-001 MS	07	50mL	6010B/Fe T, K T, Zn T	<2			50.00mL	Colorless-Clear	0.0500 mL/8044; 0.2500 mL/8343; 0.5000 mL/6507; 0.5000 mL/6508	
6	R0901679-002	WG-5513-032609-002	07	50mL	6010B/Fe T, K T, Zn T	<2			50.00mL	Colorless-Clear		
7	R0901679-003	WG-5513-032609-003	07	50mL	6010B/Fe T, K T, Zn T	<2			50.00mL	Yellow-Cloudy / Colorless-Clear		
8	R0901679-004	WG-5513-032609-004	07	50mL	6010B/Fe T, K T, Zn T	<2			50.00mL	Yellow-Cloudy / Yellow-Clear / Colorless-Clear		
9	R0901679-005	WG-5513-032609-005	07	50mL	6010B/Fe T, K T, Zn T	<2			50.00mL	Yellow-Cloudy / Colorless-Clear		
10	R0901679-006	WG-5513-032609-006	07	50mL	6010B/Fe T, K T, Zn T	<2			50.00mL	Yellow-Cloudy / Colorless-Clear		
11	R0901679-007	WG-5513-032609-007	07	50mL	6010B/Fe T, K T, Zn T	<2			50.00mL	Yellow-Cloudy / Colorless-Clear		
12	R0901679-008	WG-5513-032609-008	07	50mL	6010B/Fe T, K T, Zn T	<2			50.00mL	Yellow-Cloudy / Colorless-Clear		
13	R0901679-010	WG-5513-032609-001 SOL	04	50mL	6010B/Fe D, K D, Zn D	<2			50.00mL	Colorless-Clear		
14	R0901679-011	WG-5513-032609-002 SOL	04	50mL	6010B/Fe D, K D, Zn D	<2			50.00mL	Colorless-Clear		
15	R0901679-012	WG-5513-032609-003 SOL	04	50mL	6010B/Fe D, K D, Zn D	<2			50.00mL	Colorless-Clear		
16	R0901679-013	WG-5513-032609-004 SOL	04	50mL	6010B/Fe D, K D, Zn D	<2			50.00mL	Colorless-Clear		
17	R0901679-014	WG-5513-032609-005 SOL	04	50mL	6010B/Fe D, K D, Zn D	<2			50.00mL	Colorless-Clear		
18	R0901679-015	WG-5513-032609-006 SOL	04	50mL	6010B/Fe D, K D, Zn D	<2			50.00mL	Colorless-Clear		
19	R0901679-016	WG-5513-032609-007 SOL	04	50mL	6010B/Fe D, K D, Zn D	<2			50.00mL	Yellow-Clear / Colorless-Clear		
20	R0901679-017	WG-5513-032609-008 SOL	04	50mL	6010B/Fe D, K D, Zn D	<2			50.00mL	Colorless-Clear		
21	R0901708-006	MW-1GF	02	50mL	6010B/Cd T, Cr T	<2			50.00mL	Colorless-Clear		
22	R0901708-007	MW-2GF	02	50mL	6010B/Cd T, Cr T	<2			50.00mL	Colorless-Clear		
23	R0901708-008	MW-1GF	02	50mL	6010B/Cd D, Cr D	<2			50.00mL	Colorless-Clear		
24	R0901708-009	MW-2GF	02	50mL	6010B/Cd D, Cr D	<2			50.00mL	Colorless-Clear		

00352

# Preparation Information Benchsheet

Prep Run#: 84988  
Team: Metals/VKANE

Prep WorkFlow: MetDigAqICP  
Prep Method: EPA 3010A

Status: Prepped  
Prep Date/Time: 4/2/09 10:32

## Spiking Solutions

Name:	Custom LCS STD B Metals	Inventory ID	6507	Logbook Ref:	M1780091N	Expires On:	10/30/2009	Lot #:	08G085
Name:	Custom LCS STD A Metals	Inventory ID	6508	Logbook Ref:	M1780091m	Expires On:	10/30/2009	Lot #:	08G085
Name:	Selenium 1000 ug/mL Se	Inventory ID	8044	Logbook Ref:	M1780084B	Expires On:	07/31/2009	Lot #:	0720617
Name:	Tin 1000 ug/mL Sn	Inventory ID	8343	Logbook Ref:	M1780093L	Expires On:	08/31/2010	Lot #:	0824705

## Preparation Materials

Hydrochloric Acid (HCl) Metals M1780093G (9005)  
Nitric Acid Metals Grade HNO3 M1780094F (9004)

## Preparation Steps

Step: Digestion  
Started: 4/2/09 22:32  
Finished: 4/3/09 12:00  
By: DKRAFTSCHIK

Comments:

Reviewed By: \_\_\_\_\_ Date: \_\_\_\_\_

Chain of Custody

Relinquished By: Diane Kraftschik Date: 4/4/09  
Received By: Ambient - R-A01 Date: \_\_\_\_\_

Extracts Examined  
 Yes  No

**RADIAL OPTIMA #1 CALIBRATION STANDARD #1 (Standard is prepared weekly or as necessary)**

Metal	CAS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	Letter ID	Nitric Acid Lot#	Hydrochloric Acid Lot #	Expiration Date	Pipet ID
PQL Std 1	m17800915	5	0.100	100	0.0050	2% HNO3	DAB 4/6/09	A	m1780091H	m1780092Q	4/13/09	m17
CO		50			0.0500	5% HCl						
V		50			0.0500							
SB		60			0.0600							
AG		10			0.0100							
ZN		20			0.0200							
FE		100			0.100							
NI		40			0.0400							
CR		10			0.0100							
B		200	0.100	0.200								
PQL Std 2	m1780094D	25			0.0250			K				
MO		500			0.500			L				
SN		50			0.0500			M				
TI		1000	0.010	0.100				N				
SR	m1780092A							O				
								P				
								Q				
								R				
								S				
								T				
								U				
								V				
								W				
								X				
								Y				
								Z				
Single std												

**RADIAL OPTIMA #1 CALIBRATION STANDARD #2 (Standard is prepared weekly or as necessary)**

Metal	CAS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/Date	Letter ID	Nitric Acid Lot#	Hydrochloric Acid Lot #	Expiration Date	Pipet ID	
CAL STD 1	M1780091T	5000	0.100	1000	0.500	2% HNO3	SD 3/12/09	A	M1780093H	M1780092Q	3/19/09	M17	
		5000			Below	5% HCl	SD 3/19/09	B	M1780093H	M1780092Q	3/26/09	M17	
		5000			0.500		DCD 3/27/09	C	M1780093H	M1780092Q	4/3/09	M17	
		5000			0.500		DCD 4/6/09	D	M1780093H	M1780092Q	4/13/09	M17	
Single std	AL	10000	0.01		0.100			E					
	BA	1000	0.020		0.020			F					
	CU	1000	0.02		0.020			G					
	MN	1000	0.01		0.010			H					
	K	10000	0.15		2.00			I					
								J					
								K					
							L						
							M						
							N						
							O						
							P						
							Q						
							R						
							S						
							T						
							U						
							V						



**RADIAL OPTIMA #1- CALIBRATION STANDARD #4 / HLCCV1 (Standard is prepared weekly or as necessary)  
 (CALIBRATION STANDARD #3 IS A 1/5 DILUTION OF THIS STANDARD)**

Cal Std	Metal	CAS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	Letter ID	Nitric Acid Lot#	Hydrochloric Acid Lot #	Expiration Date	Pipet ID
Cal Std 1	CA	m1780091T	5000	4.00	200	100	2% HNO3	DLS 4/6/01	A	m1780092H	m1780092A	4/11/01	m24
	MG		5000	100		5% HCl							
	K		5000	100									
	NA		5000	100									
	AG		100	2.00		1.00							
Cal Std 2	CR	m1780091D	100			1.00			F				
	MN		150			1.50			G				
	NI		400			4.00			H				
	ZN		200			2.00			I				
	AL		2000	2.00	20.0		20.0		J				
Cal Std 3	BA	m1780091V	2000			20.0			K				
	BE		50			0.500			L				
	CO		500			5.00			M				
	CU		250			2.50			N				
	FE		1000			10.0			O				
	V		500			5.00			P				
	SB		1000	2.00	10.0		10.0		Q				
	SN		1000	2.00	10.0		10.0		R				
	B		1000	1.00	5.00		5.00		S				
	MO		1000	1.00	5.00		5.00		T				
Single Metals	TI	m1780092B	1000	1.00		5.00			U				
	SR	m1780092C	1000	1.00		5.00			V				
		m1780092A	1000	1.00		5.00							

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**RADIAL OPTIMA #1- ICV/CCV (Standard is prepared daily)**

Metal	CAS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	Letter ID	Nitric Acid Lot#	Hydrochloric Acid Lot #	Pipet ID
Cal Std 1	m1780091K	5000	2.00	200	50.0	2% HNO3	DCA 4/3/09	A	m1780091H	m1780092Q	m24
		5000			50.0			B	m1780091H	m1780092Q	m24
		5000			50.0			C	m1780091H	m1780092Q	m24
		5000			50.0			D			m23
Cal Std 2	m1780091L	100	1.00		0.500	5% HCl	DCA 4/1/09	E			
		100			0.500			F			
		150			0.750			G			
		400			2.00			H			
		200			1.00			I			
		2000			10.0			J			
Cal Std 3	m1780091T	2000	1.00		10.0			K			
		2000			10.0			L			
		50			0.250			M			
		500			2.50			N			
		250			1.25			O			
		1000			5.00			P			
		500			2.50			Q			
		1000			5.00			R			
		1000			5.00			S			
		1000			2.50			T			
Single Metals	m1780091L	1000	1.00		5.00			U			
		1000	1.00		5.00			V			
		1000	0.500		2.50						
		1000	0.500		2.50						
		1000	0.500		2.50						
		1000	0.500		2.50						
		1000	0.500		2.50						
		1000	0.500		2.50						

RADIAL OPTIMA #1 - HLCCV2 (Standard is prepared weekly or as necessary.)

Metal	CAS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/Date	Letter ID	Nitric Acid Lot#	Hydrochloric Acid Lot #	Expiration Date	Pipet ID	
Single Metals	CA	M1780091F	10000	5.00	100	2% HNO3	Sj 3/19/09	A	M1780093H	M1780092Q	3/26/09	M04 M13	
	MG	M1780089J	10000	5.00	500	5% HCl	DCS 2/17/09	B	M1780093H	M1780092Q	7/10/09	M13	
	K	M1780085A	10000	3.00	300			C					
	NA	M1780082K	10000	4.00	400			D					
	AG	M1780091L	100	2.00	2.00			E					
Cal Std 2	CR		100		Below			F					
	MN		150		Below			G					
	NI		400		8.00			H					
	ZN		200		4.00			I					
	AL	M1780091N	2000	2.00	Below			J					
Cal Std 3	BA		2000		40.0			K					
	BE		50		1.00			L					
	CO		500		10.0			M					
	CU		250		5.00			N					
	FE		1000		Below			O					
Single Metals	V		500		10.0			P					
	MO	M1780092B	1000	1.00	10.0			Q					
	CR	M1780089M	1000	0.800	10.0			R					
	TI	M1780092C	1000	1.00	10.0			S					
	AL	M1780091I	10000	4.60	500			W					
	FE	M1780085Q	10000	2.80	300			X					
	MN	M1780091Y	1000	0.700	10.0			Y					
								Z					

00358

RADIAL OPTIMA #1 MRL STANDARD

Element	CAS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	ID Letter	Nitric Acid Lot #	Hydrochloric Acid Lot #	Exp. Date	Pipet ID
Cal #1	m1780090L	5000	0.200	1000	1.00	5% HCL	DAS 8/25/69	A	m1780092B	m1780092A	4/30/69	m17
		5000	1.00		2% HNO3							
		5000	1.00									
		5000	1.00									
		100	0.10									
Cal #2	m1780091J	100	0.10	1000	0.0100			E				
		100			0.0100		F					
		150			0.0150		G					
		200			0.0200		H					
		400			0.0400		I					
		2000			0.200		J					
Cal #3	m1780090N	2000	0.10	1000	0.200			K				
		2000			0.200		L					
		1000			0.100		M					
		500			0.050		N					
		500			0.050		O					
		250			0.025		P					
		50			0.00500		Q					
PQL #2	m1780090A	200	1.00	1000	0.200			R				
		25			0.0250		S					
		500			0.500		T					
		50			0.050		U					
		1000			0.060		V					
Single Stds	m1780091E	1000	0.060	1000	0.100							
		1000	0.100									



OPTIMA #1 AND #2 ICSA STANDARD

Element	CAS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	ID Letter	Nitric Acid Lot #	Hydrochloric Acid Lot #	Expiration Date	Pipet ID	
Int. A Sol'n	m17800516	Multi	100	1000	Multi	5% HCL	DAS 3/31/09	A	m1780091H	m1780091Q	9/30/09	—	
AL		5000			500	2%HNO3		B					
CA		5000			500			C					
FE		2000			200			D					
MG		5000			500			E					
								F					
								G					
								H					
								I					
								J					
								K					
								L					
								M					
								N					
								O					
								P					
								Q					
								R					
								S					
								T					
								U					
								V					

RADIAL OPTIMA #1 ICSAB STANDARD

Element	CAS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/Date	ID Letter	Nitric Acid Lot #	Hydrochloric Acid Lot #	Expiration Date	Pipet ID
Int. A Sol'n	m17800926	Multi	50	500	Multi	5% HCl	DCS 3/26/01	A	m1780093H	m1780092Q	9/26/09	-
AL		5000			500	2% HNO3		B				
CA		5000			500			C				
FE		2000			200			D				
MG		5000			500			E				
Int. B Sol'n	m1780091L	Multi	5.0		Multi			F				
AG		100			1.00			G				
BA		50			0.500			H				
BE		50			0.500			I				
CD		100			1.00			J				
CO		50			0.500			K				
CR		50			0.500			L				
CU		50			0.500			M				
MIN		50			0.500			N				
NI		100			1.00			O				
PB		100			1.00			P				
V		50			0.500			Q				
ZN		100			1.00			R				
								S				
								T				
								U				

**OPTIMA INTERNAL STANDARD (ADDED MANUALLY)**

Metal	CAS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/Date	Letter ID	Nitric Acid Lot #	Hydro-chloric Acid Lot #	Expiration Date	Pipet ID
Y	m1780087C	10000	5.0	500	100	5% HCl 2% HNO3	DCA 2/13/09	A	m1780083H	m1780092Q	4/09	m24
CS	m1780087D	10000	5.0		100			B				
								C				
								D				
								E				
								F				
								G				
								H				
								I				
								J				
								K				
								L				
								M				
								N				
								O				
								P				
								Q				
								R				
								S				
								T				
								V				

# GENERAL CHEMISTRY DATA

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water  
**Sample Name:** WG-5513-032609-001  
**Lab Code:** R0901679-001

**Service Request:** R0901679  
**Date Collected:** 3/26/09 0900  
**Date Received:** 3/27/09

**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Ammonia as Nitrogen	350.1	0.050	U	mg/L	0.050	1	NA	4/9/09 13:55
Nitrite as Nitrogen	353.2	0.010	U	mg/L	0.010	1	NA	3/27/09 16:00
Nitrogen, Total Kjeldahl (TKN)	351.2	<b>0.26</b>		mg/L	0.20	1	4/ 6/09	4/8/09 11:32

**Comments:** \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water  
**Sample Name:** WG-5513-032609-002  
**Lab Code:** R0901679-002

**Service Request:** R0901679  
**Date Collected:** 3/26/09 10:15  
**Date Received:** 3/27/09

**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Ammonia as Nitrogen	350.1	0.103		mg/L	0.050	1	NA	4/9/09 13:58
Nitrite as Nitrogen	353.2	0.010	U	mg/L	0.010	1	NA	3/27/09 16:02
Nitrogen, Total Kjeldahl (TKN)	351.2	0.68		mg/L	0.20	1	4/ 6/09	4/8/09 11:34

**Comments:** \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water  
**Sample Name:** WG-5513-032609-003  
**Lab Code:** R0901679-003

**Service Request:** R0901679  
**Date Collected:** 3/26/09 1100  
**Date Received:** 3/27/09

**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Ammonia as Nitrogen	350.1	0.275		mg/L	0.050	1	NA	4/9/09 13:59
Nitrite as Nitrogen	353.2	0.010	U	mg/L	0.010	1	NA	3/27/09 16:05
Nitrogen, Total Kjeldahl (TKN)	351.2	0.75		mg/L	0.20	1	4/ 6/09	4/8/09 11:35

**Comments:** \_\_\_\_\_

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water  
**Sample Name:** WG-5513-032609-004  
**Lab Code:** R0901679-004

**Service Request:** R0901679  
**Date Collected:** 3/26/09 1110  
**Date Received:** 3/27/09

**Basis:** NA

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Ammonia as Nitrogen	350.1	0.282	mg/L	0.050	1	NA	4/9/09 14:00
Nitrite as Nitrogen	353.2	0.010 U	mg/L	0.010	1	NA	3/27/09 16:05
Nitrogen, Total Kjeldahl (TKN)	351.2	0.91	mg/L	0.20	1	4/ 6/09	4/8/09 11:36

Comments:

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COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water  
**Sample Name:** WG-5513-032609-005  
**Lab Code:** R0901679-005

**Service Request:** R0901679  
**Date Collected:** 3/26/09 1300  
**Date Received:** 3/27/09

**Basis:** NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Ammonia as Nitrogen	350.1	0.050	U	mg/L	0.050	1	NA	4/9/09 14:01
Nitrite as Nitrogen	353.2	0.010	U	mg/L	0.010	1	NA	3/27/09 16:05
Nitrogen, Total Kjeldahl (TKN)	351.2	0.59		mg/L	0.20	1	4/ 6/09	4/8/09 11:38

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water  
**Sample Name:** WG-5513-032609-006  
**Lab Code:** R0901679-006

**Service Request:** R0901679  
**Date Collected:** 3/26/09 1145  
**Date Received:** 3/27/09

**Basis:** NA

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Ammonia as Nitrogen	350.1	0.758	mg/L	0.050	1	NA	4/9/09 14:02
Nitrite as Nitrogen	353.2	0.010 U	mg/L	0.010	1	NA	3/27/09 16:07
Nitrogen, Total Kjeldahl (TKN)	351.2	1.62	mg/L	0.20	1	4/ 6/09	4/8/09 11:38

Comments:

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**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water  
**Sample Name:** WG-5513-032609-007  
**Lab Code:** R0901679-007

**Service Request:** R0901679  
**Date Collected:** 3/26/09 12:45  
**Date Received:** 3/27/09

**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Ammonia as Nitrogen	350.1	2.85	mg/L	0.10	2	NA	4/9/09 15:41
Nitrite as Nitrogen	353.2	0.010 U	mg/L	0.010	1	NA	3/27/09 16:07
Nitrogen, Total Kjeldahl (TKN)	351.2	3.54	mg/L	0.20	1	4/ 6/09	4/8/09 11:39

**Comments:** \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water  
**Sample Name:** WG-5513-032609-008  
**Lab Code:** R0901679-008

**Service Request:** R0901679  
**Date Collected:** 3/26/09 1315  
**Date Received:** 3/27/09

**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Ammonia as Nitrogen	350.1	0.050 U	mg/L	0.050	1	NA	4/9/09 14:06
Nitrite as Nitrogen	353.2	0.010 U	mg/L	0.010	1	NA	3/27/09 16:07
Nitrogen, Total Kjeldahl (TKN)	351.2	<b>0.46</b>	mg/L	0.20	1	4/ 6/09	4/8/09 11:40

**Comments:** \_\_\_\_\_

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** R0901679-MB1

**Service Request:** R0901679  
**Date Collected:** NA  
**Date Received:** NA

**Basis:** NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Ammonia as Nitrogen	350.1	0.050	U	mg/L	0.050	1	NA	4/9/09 12:22
Nitrite as Nitrogen	353.2	0.010	U	mg/L	0.010	1	NA	3/27/09 15:57
Nitrogen, Total Kjeldahl (TKN)	351.2	0.20	U	mg/L	0.20	1	4/ 6/09	4/8/09 10:48

Comments:

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COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** R0901679-MB2

**Service Request:** R0901679  
**Date Collected:** NA  
**Date Received:** NA

**Basis:** NA

Nitrogen, Kjeldahl, Total (Colorimetric, Semi-Automated Digester, AAII)

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Nitrogen, Total Kjeldahl (TKN)	351.2	0.20	U	mg/L	0.20	1	4/ 6/09	4/8/09 10:48

Comments:

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**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water

**Service Request:** R0901679  
**Date Collected:** 3/26/09  
**Date Received:** 3/27/09  
**Date Analyzed:** 3/27/09 -  
 4/ 9/09

**Duplicate Sample Summary  
 General Chemistry Parameters**

**Sample Name:** WG-5513-032609-001  
**Lab Code:** R0901679-001

**Units:** mg/L  
**Basis:** NA

Analyte Name	Method	MRL	Sample Result	Duplicate Sample R0901679-DUP1		RPD	RPD Limit
				Result	Average		
Ammonia as Nitrogen	350.1	0.050	0.050 U	0.050 U	NA	NC	20
Nitrite as Nitrogen	353.2	0.010	0.010 U	0.010 U	NA	NC	20
Nitrogen, Total Kjeldahl (TKN)	351.2	0.20	0.26	0.24	0.249	7	20

**Comments:** \_\_\_\_\_

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water

**Service Request:** R0901679  
**Date Collected:** 3/26/09  
**Date Received:** 3/27/09  
**Date Analyzed:** 3/27/09 - 4/9/09

**Matrix Spike Summary**  
**General Chemistry Parameters**

**Sample Name:** WG-5513-032609-001  
**Lab Code:** R0901679-001

**Units:** mg/L  
**Basis:** NA

Analyte Name	Method	Sample Result	Matrix Spike		% Rec	Limits
			Result	Expected		
Ammonia as Nitrogen	350.1	ND	0.461	0.500	92	59 - 129
Nitrogen, Total Kjeldahl (TKN)	351.2	0.26	2.75	2.50	99	70 - 117
Nitrite as Nitrogen	353.2	ND	0.256	0.250	103	73 - 126

Comments: \_\_\_\_\_



COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water

**Service Request:** R0901679  
**Date Analyzed:** 3/27/09 -  
4/ 9/09

**Lab Control Sample Summary  
General Chemistry Parameters**

**Units:** mg/L  
**Basis:** NA

Analyte Name	Method	Lab Control Sample R0901679-LCS1			% Rec Limits
		Result	Expected	% Rec	
Ammonia as Nitrogen	350.1	0.486	0.500	97	90 - 110
Nitrite as Nitrogen	353.2	0.254	0.250	102	90 - 110
Nitrogen, Total Kjeldahl (TKN)	351.2	2.28	2.50	91	72 - 108

Comments: \_\_\_\_\_

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

**Client:** Conestoga-Rovers & Associates, Incorporated  
**Project:** UCAR Annual GE/ 5513-02  
**Sample Matrix:** Water

**Service Request:** R0901679  
**Date Analyzed:** 4/ 8/09 -  
4/ 9/09

**Lab Control Sample Summary  
General Chemistry Parameters**

**Units:** mg/L  
**Basis:** NA

Analyte Name	Method	Lab Control Sample R0901679-LCS2			% Rec Limits
		Result	Expected	% Rec	
Ammonia as Nitrogen	350.1	0.475	0.500	95	90 - 110
Nitrogen, Total Kjeldahl (TKN)	351.2	2.70	2.50	108	72 - 108

Comments: \_\_\_\_\_

# Analytical Results Summary

Instrument Name: R-FIA-01      Analyst: NMEAD      Analysis Lot: 149442      Method/Testcode: 350.1/Ammonia T

Lab Code	Target Analytes	QC Type	Parent Sample	Matrix	Sample Amt	Final Result	Dil	LOL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ0902416-01	Ammonia as Nitrogen	MB		Water	10 mL	0.050 U ✓	1	0.050			4/9/09 12:22:29	N	I
RQ0902416-02	Ammonia as Nitrogen	LCS		Water	10 mL	0.486 ✓	1	0.050	97		4/9/09 12:23:27	N	I
R0901722-016	Ammonia as Nitrogen	N/A		Water	10 mL	38.9 ✓	100	5.0			4/9/09 13:40:52	N	I
R0901722-017	Ammonia as Nitrogen	N/A		Water	10 mL	54.0 ✓	100	5.0			4/9/09 13:41:50	N	I
R0901722-018	Ammonia as Nitrogen	N/A		Water	10 mL	67.4 ✓	100	5.0			4/9/09 13:42:48	N	I
R0901722-019	Ammonia as Nitrogen	N/A		Water	10 mL	88.6 ✓	100	5.0			4/9/09 13:43:46	N	I
R0901809-001	Ammonia as Nitrogen	N/A		Water	10 mL	1750 ✓	2000	100			4/9/09 13:44:45	N	II
R0901804-002	Ammonia as Nitrogen	N/A		Water	10 mL	0.3094 ✓	2	0.10	OK 4/10/09		4/9/09 15:33:04	N	II
R0901804-003	Ammonia as Nitrogen	N/A		Water	10 mL	0.10 U ✓	2	0.10			4/9/09 15:40:29	N	II
R0901804-005	Ammonia as Nitrogen	N/A		Water	10 mL	0.37 ✓	2	0.10	OK 4/10/09		4/9/09 15:34:05	N	II
R0901804-006	Ammonia as Nitrogen	N/A		Water	10 mL	0.10 U ✓	2	0.10			4/9/09 15:39:30	N	II
R0901804-008	Ammonia as Nitrogen	N/A		Water	10 mL	0.804 ✓	1	0.050			4/9/09 13:49:36	N	II
RQ0902416-03	Ammonia as Nitrogen	LCS		Water	10 mL	0.475 ✓	1	0.050	95		4/9/09 13:52:33	N	II
R0901804-009	Ammonia as Nitrogen	N/A		Water	10 mL	0.052 ✓	1	0.050			4/9/09 13:53:32	N	II
R0901677-001	Ammonia as Nitrogen	N/A		Water	10 mL	1.58 ✓	1	0.050			4/9/09 13:54:31	N	II
R0901679-001	Ammonia as Nitrogen	N/A		Water	10 mL	0.050 U ✓	1	0.050			4/9/09 13:55:31	Y	IV
RQ0902416-09	Ammonia as Nitrogen	DUP	R0901679-001	Water	10 mL	0.048 J ✓	1	0.050		NC	4/9/09 13:56:31	N	IV
RQ0902416-08	Ammonia as Nitrogen	MS	R0901679-001	Water	10 mL	0.461 ✓	1	0.050	92		4/9/09 13:57:45	N	IV
R0901679-002	Ammonia as Nitrogen	N/A		Water	10 mL	0.103 ✓	1	0.050			4/9/09 13:58:25	N	IV
R0901679-003	Ammonia as Nitrogen	N/A		Water	10 mL	0.275 ✓	1	0.050			4/9/09 13:59:23	N	IV
R0901679-004	Ammonia as Nitrogen	N/A		Water	10 mL	0.282 ✓	1	0.050			4/9/09 14:00:21	N	IV
R0901679-005	Ammonia as Nitrogen	N/A		Water	10 mL	0.050 U ✓	1	0.050			4/9/09 14:01:19	N	IV
R0901679-006	Ammonia as Nitrogen	N/A		Water	10 mL	0.758 ✓	1	0.050			4/9/09 14:02:18	N	IV
R0901679-007	Ammonia as Nitrogen	N/A		Water	10 mL	2.85 ✓	2	0.10			4/9/09 15:41:27	N	IV
R0901679-008	Ammonia as Nitrogen	N/A		Water	10 mL	0.050 U ✓	1	0.050			4/9/09 14:06:15	N	IV
RQ0902416-07	Ammonia as Nitrogen	DUP	R0901679-008	Water	10 mL	0.050 U ✓	1	0.050		NC	4/9/09 14:07:14	N	IV
RQ0902416-06	Ammonia as Nitrogen	MS	R0901679-008	Water	10 mL	0.405 ✓	1	0.050	81		4/9/09 14:08:13	N	IV

00378

**Creator:** NMEAD  
**Creation Date:** Apr 8, 2009 15:44:47  
**Last Modified:** Apr 9, 2009 9:30:38  
**Description:** QC 8000 350.1 Ammonia - RUN LOG - 0904090A

Cup #	Sample ID	Manual Dilution	Sample Type
1	Standard A - 2.000	1.0000	CalStd
2	Standard B - 1.000	1.0000	CalStd
3	Standard C - 0.500	1.0000	CalStd
4	Standard D - 0.200	1.0000	CalStd
5	Standard E - 0.100	1.0000	CalStd
6	Standard F - 0.050	1.0000	CalStd
7	Standard G - 0.020	1.0000	CalStd
8	Standard H - 0.010	1.0000	CalStd
9	Standard I - 0.000	1.0000	CalStd
1	ICV TV = 1.80	1.0000	Unknown
2	ICB	1.0000	Unknown
3	LCS TV = 0.500	1.0000	Unknown
4	CRDL 0.050	1.0000	Unknown
5	CRDL 0.010	1.0000	Unknown
6	CCV	1.0000	Unknown
7	CCB	1.0000	Unknown
8	R0901793-001	1.0000	Unknown
9	1793-001 DUP	1.0000	Unknown
10	1793-001 SPK TV = 0.500	1.0000	Unknown
11	R0901793-003	1.0000	Unknown
12	R0901793-005	1.0000	Unknown
13	R0901793-007	1.0000	Unknown
14	R0901793-009	1.0000	Unknown
15	R0901793-011	1.0000	Unknown
16	R0901793-013	1.0000	Unknown
17	R0901793-015	1.0000	Unknown
18	CCV	1.0000	Unknown
19	CCB	1.0000	Unknown
20	LCS	1.0000	Unknown
21	R0901793-017	1.0000	Unknown
22	R0901793-019	1.0000	Unknown
23	R0901793-021	1.0000	Unknown
24	1793-021 DUP	1.0000	Unknown
25	1793-021 SPK TV = 0.500	1.0000	Unknown
26	R0901793-023	1.0000	Unknown
27	R0901793-025	1.0000	Unknown
28	R0901793-027	1.0000	Unknown
29	R0901793-029	1.0000	Unknown
30	R0901793-031	1.0000	Unknown
31	CCV	1.0000	Unknown

Cup #	Sample ID	Manual Dilution	Sample Type	
32	CCB	1.0000	Unknown	
33	R0901793-033	1.0000	Unknown	
34	1793-033 DUP	1.0000	Unknown	
35	1793-033 SPK TV = 0.500	1.0000	Unknown	
36	R0901793-035	1.0000	Unknown	
37	R0901793-037	1.0000	Unknown	
38	R0901793-039	1.0000	Unknown	
39	R0901793-041	1.0000	Unknown	
40	R0901728-001	1.0000	Unknown	
41	R0901728-002	1.0000	Unknown	- neg peak - rpt @ #1754
42	R0901728-003	1.0000	Unknown	- neg peak - rpt @ #1764
43	CCV	1.0000	Unknown	
44	CCB	1.0000	Unknown	
45	LCS	1.0000	Unknown	
46	1728-003 DUP	1.0000	Unknown	> neg peak - rpt @ #177-178-1/2
47	1728-003 SPK TV = 0.500	1.0000	Unknown	
48	R0901728-004	1.0000	Unknown	
49	R0901728-005	1.0000	Unknown	- neg peak - rpt @ #179
50	R0901728-006	1.0000	Unknown	- neg peak - rpt @ #180-1/2
51	R0901728-007	1.0000	Unknown	- neg peak - rpt @ #183-1/2
52	R0901728-008	1.0000	Unknown	
53	R0901728-009	1.0000	Unknown	
54	1728-009 DUP	1.0000	Unknown	
55	1728-009 SPK TV = 0.500	1.0000	Unknown	
56	CCV	1.0000	Unknown	
57	CCB	1.0000	Unknown	
58	R0901662-001	2,000.0000	Unknown	
59	R0901717-001	1.0000	Unknown	- rpt @ #184 - 1/100
60	R0901717-002	1.0000	Unknown	- rpt @ #185 - 1/50
61	R0901771-001	1.0000	Unknown	- carryover? - rpt @ #186
62	R0901776-001	1.0000	Unknown	
63	R0901777-001	10.0000	Unknown	
64	R0901722-001	100.0000	Unknown	- rpt @ #187 - 1/500
65	R0901722-002	100.0000	Unknown	- rpt @ #188 - 1/2
66	R0901722-003	100.0000	Unknown	-
67	R0901722-004	100.0000	Unknown	
68	CCV	1.0000	Unknown	
69	CCB	1.0000	Unknown	
70	LCS	1.0000	Unknown	
71	R0901722-005	100.0000	Unknown	
72	R0901722-006	100.0000	Unknown	- rpt @ #189 - 1/10
73	R0901722-007	100.0000	Unknown	
74	R0901722-008	100.0000	Unknown	
75	R0901722-009	100.0000	Unknown	
76	R0901722-011	100.0000	Unknown	- rpt @ #190 - 1/200

Cup #	Sample ID	Manual Dilution	Sample Type	
77	R0901722-012	100.0000	Unknown	- rpt@# 191-1/2
78	R0901722-013	100.0000	Unknown	- rpt@# 192-1/4
79	R0901722-014	100.0000	Unknown	- rpt@# 196-1/5
80	R0901722-015	100.0000	Unknown	
81	CCV	1.0000	Unknown	
82	CCB	1.0000	Unknown	
83	R0901722-016	100.0000	Unknown	
84	R0901722-017	100.0000	Unknown	
85	R0901722-018	100.0000	Unknown	
86	R0901722-019	100.0000	Unknown	
87	R0901809-001	2,000.0000	Unknown	
88	R0901804-002	1.0000	Unknown	- double peak - rpt@# 197-1/3
89	R0901804-003	1.0000	Unknown	- neg. peak - <del>CPQ</del> next tray 1/2
90	R0901804-005	1.0000	Unknown	- double peak - rpt@# 198-1/2
91	R0901804-006	1.0000	Unknown	- neg. peak - rpt@# next tray 1/2
92	R0901804-008	1.0000	Unknown	
93	CCV	1.0000	Unknown	
94	CCB	1.0000	Unknown	
95	LCS	1.0000	Unknown	
96	R0901804-009	1.0000	Unknown	
97	R0901677-001	1.0000	Unknown	
98	R0901679-001	1.0000	Unknown	
99	1679-001 DUP	1.0000	Unknown	
100	1679-001 SPK TV = 0.500	1.0000	Unknown	
101	R0901679-002	1.0000	Unknown	
102	R0901679-003	1.0000	Unknown	
103	R0901679-004	1.0000	Unknown	
104	R0901679-005	1.0000	Unknown	
105	R0901679-006	1.0000	Unknown	
106	CCV	1.0000	Unknown	
107	CCB	1.0000	Unknown	
108	R0901679-007	1.0000	Unknown	- rpt@# 3 next tray 1/2
109	R0901679-008	1.0000	Unknown	
110	1679-008 DUP	1.0000	Unknown	
111	1679-008 SPK TV = 0.500	1.0000	Unknown	
112	R0901841-001	1.0000	Unknown	
113	R0901841-002	1.0000	Unknown	
114	R0901841-003	10.0000	Unknown	
115	R0901862-004	1.0000	Unknown	- neg. peak - CPQL
116	R0901862-005	1.0000	Unknown	- neg. peak - CPQL
117	R0901862-006	1.0000	Unknown	- neg. peak - CPQL
118	CCV	1.0000	Unknown	
119	CCB	1.0000	Unknown	
120	LCS	1.0000	Unknown	
121	R0901862-007	1.0000	Unknown	- neg. peak - CPQL

Cup #	Sample ID	Manual Dilution	Sample Type	
122	R0901862-008	1.0000	Unknown	- neg. peak - <PQL
123	R0901862-009	1.0000	Unknown	- neg. peak - <PQL
124	R0901862-010	1.0000	Unknown	- neg. peak - <PQL
125	R0901736-001	1.0000	Unknown	
126	1736-001 DUP	1.0000	Unknown	
127	1736-001 SPK TV = 0.500	1.0000	Unknown	
128	R0901801-001	1.0000	Unknown	
129	1801-001 DUP	1.0000	Unknown	
130	1801-001 SPK TV = 0.500	1.0000	Unknown	
131	CCV	1.0000	Unknown	
132	CCB	1.0000	Unknown	
133	R0901801-002	1.0000	Unknown	
134	R0901801-003	1.0000	Unknown	
135	R0901801-004	1.0000	Unknown	
136	R0901801-005	1.0000	Unknown	
137	R0901801-006	1.0000	Unknown	- sm. neg. peak - <PQL
138	R0901801-007	1.0000	Unknown	
139	R0901801-008	1.0000	Unknown	- neg. peak - <PQL
140	R0901801-009	1.0000	Unknown	
141	R0901801-010	1.0000	Unknown	- sm. neg. peak - <PQL
142	R0901801-011	1.0000	Unknown	
143	CCV	1.0000	Unknown	
144	CCB	1.0000	Unknown	
145	LCS	1.0000	Unknown	
146	R0901801-012	1.0000	Unknown	
147	1801-012 DUP	1.0000	Unknown	
148	1801-012 SPK TV = 0.500	1.0000	Unknown	
149	R0901801-013	1.0000	Unknown	- sm. neg. peak - <PQL
150	R0901801-014	1.0000	Unknown	- sm. neg. peak - <PQL
151	R0901801-015	1.0000	Unknown	
152	R0901801-016	1.0000	Unknown	
153	R0901801-017	1.0000	Unknown	
154	R0901801-018	1.0000	Unknown	
155	R0901801-019	1.0000	Unknown	- neg. peak - <PQL
156	CCV	1.0000	Unknown	
157	CCB	1.0000	Unknown	
158	R0901801-020	5.0000	Unknown	- rpt to #6 - next tray -
159	R0901801-021	1.0000	Unknown	
160	R0901801-022	1.0000	Unknown	
161	R0901801-023	1.0000	Unknown	
162	1801-023 DUP	1.0000	Unknown	
163	1801-023 SPK TV = 0.500	1.0000	Unknown	
164	R0901801-024	1.0000	Unknown	
165	R0901801-025	1.0000	Unknown	
166	R0901801-026	1.0000	Unknown	- sm. neg. peak - <PQL

Cup #	Sample ID	Manual Dilution	Sample Type	
167	R0901932-001	1.0000	Unknown	
168	CCV	1.0000	Unknown	
169	CCB	1.0000	Unknown	
170	LCS	1.0000	Unknown	
171	1932-001 DUP	1.0000	Unknown	
172	1932-001 SPK TV = 0.500	1.0000	Unknown	
173	R0901933-001	1.0000	Unknown	
174	R0901899-001	1.0000	Unknown	
175	R0901728-002 RPT 1/2	2.0000	Unknown	- sm. neg. peak - <PQL
176	R0901728-003 RPT 1/2	2.0000	Unknown	> sm. neg. peaks - <PQL
177	1728-003 DUP RPT 1/2	2.0000	Unknown	
178	1728-003SPKRPT1/2TV=0.5	2.0000	Unknown	
179	R0901728-005 RPT 1/2	2.0000	Unknown	
180	R0901728-006 RPT 1/2	2.0000	Unknown	- sm. neg. peak - <PQL
181	CCV	1.0000	Unknown	
182	CCB	1.0000	Unknown	
183	R0901728-007 RPT 1/2	2.0000	Unknown	- sm. neg. peak - <PQL
184	R0901717-001 RPT 1/100	100.0000	Unknown	- rpt @ # 7 - next tray - 1/100
185	R0901717-002 RPT 1/50	50.0000	Unknown	- rpt @ # 8 next tray - 1/500
186	R0901771-001 RPT	1.0000	Unknown	- sm. neg. peak - <PQL
187	R0901722-001 RPT 1/500	500.0000	Unknown	
188	R0901722-002 RPT 1/2	2.0000	Unknown	
189	R0901722-006 RPT 1/10	10.0000	Unknown	
190	R0901722-011 RPT 1/200	200.0000	Unknown	
191	R0901722-012 RPT 1/2	2.0000	Unknown	
192	R0901722-013 RPT 1/4	4.0000	Unknown	
193	CCV	1.0000	Unknown	
194	CCB	1.0000	Unknown	
195	LCS	1.0000	Unknown	
196	R0901722-014 RPT 1/5	5.0000	Unknown	
197	R0901804-002 RPT 1/2	2.0000	Unknown	- double peak - rpt @ # 1
198	R0901804-005 RPT 1/2	2.0000	Unknown	- double peak - next tray
199	CCV	1.0000	Unknown	rpt @ # 10 tray 2 - 1/10
200	CCB	1.0000	Unknown	



**Creator:** NMEAD  
**Creation Date:** Apr 9, 2009 15:38:39  
**Last Modified:** Apr 9, 2009 15:41:32  
**Description:** QC 8000 350.1 Ammonia - RUN LOG - 090409A2

Cup #	Sample ID	Manual Dilution	Sample Type	
1	R0901804-006 RPT 1/2	2.0000	Unknown	
2	R0901804-003 RPT 1/2	2.0000	Unknown	
3	R0901679-007 RPT 1/2	2.0000	Unknown	
4	R0901947-001	1.0000	Unknown	
5	R0901948-001	10.0000	Unknown	
6	R0901801-020 RPT 1/10	10.0000	Unknown	
7	R0901717-001 RPT 1/1000	1,000.0000	Unknown	
8	R0901717-002 RPT 1/500	500.0000	Unknown	
9	R0901804-002 RPT 1/4	4.0000	Unknown	
10	R0901804-005 RPT 1/4	4.0000	Unknown	
11	CCV	1.0000	Unknown	
12	CCB	1.0000	Unknown	

OPERATOR: NMEAD  
 ACQ. TIME: Apr 9, 2009 12:21:27  
 DATA FILENAME: C:\OMNION\DATA\090409A1.FDT  
 TRAY FILENAME: C:\OMNION\TRAYS\0904090A.TRA

Multi-Channel Table  
 Type: Unknowns  
 Channel Range: 1 to 8 -- Cup Range: 1 to 25

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	QC 8000 350.1 Ammonia (mg/L)	Man Dil Factor	Auto Dil Factor
1	ICV TV= 1.80	09 Apr 2009	12:21:30	1	1.7682	1.0	1.00
2	ICB	09 Apr 2009	12:22:29	1	-0.0085	1.0	1.00
3	LCS TV= 0.500	09 Apr 2009	12:23:27	1	0.4856	1.0	1.00
4	CRDL 0.050	09 Apr 2009	12:24:25	1	0.0494	1.0	1.00
5	CRDL 0.010	09 Apr 2009	12:25:23	1	0.0131	1.0	1.00
6	CCV	09 Apr 2009	12:26:21	1	1.7972	1.0	1.00
7	CCB	09 Apr 2009	12:27:20	1	-0.0079	1.0	1.00
8	R0901793-001	09 Apr 2009	12:28:17	1	0.0168	1.0	1.00
9	1793-001 DUP	09 Apr 2009	12:29:14	1	0.0171	1.0	1.00
10	1793-001 SPK TV= 0.500	09 Apr 2009	12:30:11	1	0.5683	1.0	1.00
11	R0901793-003	09 Apr 2009	12:31:08	1	0.0144	1.0	1.00
12	R0901793-005	09 Apr 2009	12:32:05	1	0.0142	1.0	1.00
13	R0901793-007	09 Apr 2009	12:33:02	1	0.0192	1.0	1.00
14	R0901793-009	09 Apr 2009	12:33:59	1	0.0458	1.0	1.00
15	R0901793-011	09 Apr 2009	12:34:56	1	0.0701	1.0	1.00
16	R0901793-013	09 Apr 2009	12:35:55	1	0.0527	1.0	1.00
17	R0901793-015	09 Apr 2009	12:36:54	1	0.0596	1.0	1.00
18	CCV	09 Apr 2009	12:37:52	1	1.8043	1.0	1.00
19	CCB	09 Apr 2009	12:38:50	1	-0.0050	1.0	1.00
20	LCS	09 Apr 2009	12:39:49	1	0.4924	1.0	1.00
21	R0901793-017	09 Apr 2009	12:40:47	1	0.0741	1.0	1.00
22	R0901793-019	09 Apr 2009	12:41:45	1	0.0241	1.0	1.00
23	R0901793-021	09 Apr 2009	12:42:43	1	0.0326	1.0	1.00
24	1793-021 DUP	09 Apr 2009	12:43:41	1	0.0296	1.0	1.00
25	1793-021 SPK TV= 0.500	09 Apr 2009	12:44:39	1	0.4806	1.0	1.00

OPERATOR: NMEAD  
 ACQ. TIME: Apr 9, 2009 12:21:27  
 DATA FILENAME: C:\OMNION\DATA\090409A1.FDT  
 TRAY FILENAME: C:\OMNION\TRAYS\0904090A.TRA

Multi-Channel Table  
 Type: Unknowns  
 Channel Range: 1 to 8 -- Cup Range: 26 to 50

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	QC 8000 350.1 Ammonia (mg/L)	Man Dil Factor	Auto Dil Factor
26	R0901793-023	09 Apr 2009	12:45:36	1	0.0146	1.0	1.00
27	R0901793-025	09 Apr 2009	12:46:33	1	0.0133	1.0	1.00
28	R0901793-027	09 Apr 2009	12:47:31	1	0.0164	1.0	1.00
29	R0901793-029	09 Apr 2009	12:48:28	1	0.0369	1.0	1.00
30	R0901793-031	09 Apr 2009	12:49:25	1	0.0230	1.0	1.00
31	CCV	09 Apr 2009	12:50:24	1	1.7796	1.0	1.00
32	CCB	09 Apr 2009	12:51:23	1	-0.0083	1.0	1.00
33	R0901793-033	09 Apr 2009	12:52:21	1	0.0226	1.0	1.00
34	1793-033 DUP	09 Apr 2009	12:53:20	1	0.0190	1.0	1.00
35	1793-033 SPK TV= 0.500	09 Apr 2009	12:54:18	1	0.4656	1.0	1.00
36	R0901793-035	09 Apr 2009	12:55:16	1	0.0144	1.0	1.00
37	R0901793-037	09 Apr 2009	12:56:14	1	-0.0081	1.0	1.00
38	R0901793-039	09 Apr 2009	12:57:12	1	-0.0053	1.0	1.00
39	R0901793-041	09 Apr 2009	12:58:10	1	-0.0101	1.0	1.00
40	R0901728-001	09 Apr 2009	12:59:08	1	-0.0045	1.0	1.00 - Neg peak
41	R0901728-002	09 Apr 2009	13:00:06	1	-0.0101	1.0	1.00 - neg. peak - rpt@#175-1/2
42	R0901728-003	09 Apr 2009	13:01:03	1	0.0087	1.0	1.00 - neg. peak - rpt@#176-1/2
43	CCV	09 Apr 2009	13:02:00	1	1.7539	1.0	1.00
44	CCB	09 Apr 2009	13:02:57	1	-0.0086	1.0	1.00
45	LCS	09 Apr 2009	13:03:54	1	0.4735	1.0	1.00
46	1728-003 DUP	09 Apr 2009	13:04:53	1	0.0007	1.0	1.00 > neg. peak - rpt@#177 178-1/2
47	1728-003 SPK TV= 0.500	09 Apr 2009	13:05:52	1	0.4270	1.0	1.00
48	R0901728-004	09 Apr 2009	13:06:51	1	0.0054	1.0	1.00
49	R0901728-005	09 Apr 2009	13:07:51	1	0.0077	1.0	1.00 - neg. peak - rpt@#179-1/2
50	R0901728-006	09 Apr 2009	13:08:49	1	0.0003	1.0	1.00 - neg. peak - rpt@#180-1/2

OPERATOR: NMEAD  
 ACQ. TIME: Apr 9, 2009 12:21:27  
 DATA FILENAME: C:\OMNION\DATA\090409A1.FDT  
 TRAY FILENAME: C:\OMNION\TRAYS\0904090A.TRA

Multi-Channel Table  
 Type: Unknowns  
 Channel Range: 1 to 8 -- Cup Range: 51 to 75

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	QC 8000 350.1 Ammonia (mg/L)	Man Dil Factor	Auto Dil Factor	
51	R0901728-007	09 Apr 2009	13:09:47	1	0.0150	1.0	1.00	- neg. peak - rpt @ #183-1/2
52	R0901728-008	09 Apr 2009	13:10:45	1	0.0156	1.0	1.00	
53	R0901728-009	09 Apr 2009	13:11:43	1	-0.0101	1.0	1.00	
54	1728-009 DUP	09 Apr 2009	13:12:42	1	-0.0047	1.0	1.00	- Neg peak <pg6
55	1728-009 SPK TV= 0.500	09 Apr 2009	13:13:40	1	0.4407	1.0	1.00	
56	CCV	09 Apr 2009	13:14:38	1	1.7869	1.0	1.00	
57	CCB	09 Apr 2009	13:15:36	1	-0.0079	1.0	1.00	
58	R0901662-001	09 Apr 2009	13:16:33	1	2269.8928	2000.0	1.00	
59	R0901717-001	09 Apr 2009	13:17:30	1	14.7320	1.0	1.00	- rpt @ #184-1/100
60	R0901717-002	09 Apr 2009	13:18:27	1	25.1489	1.0	1.00	- rpt @ #185-1/50
61	R0901771-001	09 Apr 2009	13:19:27	1	0.1674	1.0	1.00	- carryover? rpt @ #186
62	R0901776-001	09 Apr 2009	13:20:26	1	0.0019	1.0	1.00	
63	R0901777-001	09 Apr 2009	13:21:25	1	9.6746	10.0	1.00	
64	R0901722-001	09 Apr 2009	13:22:24	1	596.9390	100.0	1.00	- rpt @ #187-1/500
65	R0901722-002	09 Apr 2009	13:23:23	1	2.4166	100.0	1.00	- rpt @ #188-1/2
66	R0901722-003	09 Apr 2009	13:24:21	1	10.0822	100.0	1.00	
67	R0901722-004	09 Apr 2009	13:25:19	1	15.7191	100.0	1.00	
68	CCV	09 Apr 2009	13:26:18	1	1.8204	1.0	1.00	
69	CCB	09 Apr 2009	13:27:16	1	-0.0045	1.0	1.00	
70	LCS	09 Apr 2009	13:28:14	1	0.4746	1.0	1.00	
71	R0901722-005	09 Apr 2009	13:29:12	1	18.2844	100.0	1.00	
72	R0901722-006	09 Apr 2009	13:30:10	1	9.7175	100.0	1.00	- rpt @ #189-1/10
73	R0901722-007	09 Apr 2009	13:31:07	1	11.2247	100.0	1.00	
74	R0901722-008	09 Apr 2009	13:32:04	1	11.8118	100.0	1.00	
75	R0901722-009	09 Apr 2009	13:33:02	1	26.8967	100.0	1.00	

OPERATOR: NMEAD  
 ACQ. TIME: Apr 9, 2009 12:21:27  
 DATA FILENAME: C:\OMNION\DATA\090409A1.FDT  
 TRAY FILENAME: C:\OMNION\TRAYS\0904090A.TRA

Multi-Channel Table  
 Type: Unknowns  
 Channel Range: 1 to 8 -- Cup Range: 76 to 100

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	QC 8000 350.1 Ammonia (mg/L)	Man Dil Factor	Auto Dil Factor	
76	R0901722-011	09 Apr 2009	13:34:01	1	250.3822	100.0	1.00	- rpt @ #190 - 1/200
77	R0901722-012	09 Apr 2009	13:35:00	1	2.7375	100.0	1.00	- rpt @ #191 - 1/2
78	R0901722-013	09 Apr 2009	13:35:59	1	4.5323	100.0	1.00	- rpt @ #192 - 1/4
79	R0901722-014	09 Apr 2009	13:36:58	1	6.4657	100.0	1.00	- rpt @ #196 - 1/5
80	R0901722-015	09 Apr 2009	13:37:58	1	11.1767	100.0	1.00	
81	CCV	09 Apr 2009	13:38:56	1	1.7799	1.0	1.00	
82	CCB	09 Apr 2009	13:39:54	1	-0.0089	1.0	1.00	
83	R0901722-016	09 Apr 2009	13:40:52	1	38.8575	100.0	1.00	
84	R0901722-017	09 Apr 2009	13:41:50	1	54.0333	100.0	1.00	
85	R0901722-018	09 Apr 2009	13:42:48	1	67.3733	100.0	1.00	
86	R0901722-019	09 Apr 2009	13:43:46	1	88.6254	100.0	1.00	
87	R0901809-001	09 Apr 2009	13:44:45	1	1750.6465	2000.0	1.00	
88	R0901804-002	09 Apr 2009	13:45:43	1	0.0522	1.0	1.00	- double peak - rpt @ #197 - 1/2
89	R0901804-003	09 Apr 2009	13:46:40	1	-0.0101	1.0	1.00	- neg. peak - rpt @ #2 tray 2 - 1/2
90	R0901804-005	09 Apr 2009	13:47:37	1	0.1410	1.0	1.00	- double peak - rpt @ #198 - 1/2
91	R0901804-006	09 Apr 2009	13:48:36	1	0.0256	1.0	1.00	- neg. peak - rpt @ #1 tray 2 - 1/2
92	R0901804-008	09 Apr 2009	13:49:36	1	0.8039	1.0	1.00	
93	CCV	09 Apr 2009	13:50:35	1	1.7953	1.0	1.00	
94	CCB	09 Apr 2009	13:51:34	1	-0.0090	1.0	1.00	
95	LCS	09 Apr 2009	13:52:33	1	0.4755	1.0	1.00	
96	R0901804-009	09 Apr 2009	13:53:32	1	0.0521	1.0	1.00	
97	R0901677-001	09 Apr 2009	13:54:31	1	1.5765	1.0	1.00	
98	R0901679-001	09 Apr 2009	13:55:31	1	0.0477	1.0	1.00	
99	1679-001 DUP	09 Apr 2009	13:56:29	1	0.0475	1.0	1.00	
100	1679-001 SPK TV= 0.500	09 Apr 2009	13:57:27	1	0.4608	1.0	1.00	

OPERATOR: NMEAD  
 ACQ. TIME: Apr 9, 2009 12:21:27  
 DATA FILENAME: C:\OMNION\DATA\090409A1.FDT  
 TRAY FILENAME: C:\OMNION\TRAYS\0904090A.TRA

Multi-Channel Table  
 Type: Unknowns  
 Channel Range: 1 to 8 -- Cup Range: 101 to 125

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	QC 8000 350.1 Ammonia (mg/L)	Man Dil Factor	Auto Dil Factor
101	R0901679-002	09 Apr 2009	13:58:25	1	0.1025	1.0	1.00
102	R0901679-003	09 Apr 2009	13:59:23	1	0.2749	1.0	1.00
103	R0901679-004	09 Apr 2009	14:00:21	1	0.2824	1.0	1.00
104	R0901679-005	09 Apr 2009	14:01:19	1	0.0115	1.0	1.00
105	R0901679-006	09 Apr 2009	14:02:18	1	0.7578	1.0	1.00
106	CCV	09 Apr 2009	14:03:17	1	1.7865	1.0	1.00
107	CCB	09 Apr 2009	14:04:16	1	-0.0101	1.0	1.00
108	R0901679-007	09 Apr 2009	14:05:15	1	2.3501	1.0	1.00
109	R0901679-008	09 Apr 2009	14:06:15	1	-0.0071	1.0	1.00
110	1679-008 DUP	09 Apr 2009	14:07:14	1	-0.0062	1.0	1.00
111	1679-008 SPK TV= 0.500	09 Apr 2009	14:08:13	1	0.4050	1.0	1.00
112	R0901841-001	09 Apr 2009	14:09:12	1	0.1628	1.0	1.00
113	R0901841-002	09 Apr 2009	14:10:11	1	0.0560	1.0	1.00
114	R0901841-003	09 Apr 2009	14:11:09	1	6.1598	10.0	1.00
115	R0901862-004	09 Apr 2009	14:12:08	1	-0.0101	1.0	1.00
116	R0901862-005	09 Apr 2009	14:13:06	1	-0.0098	1.0	1.00
117	R0901862-006	09 Apr 2009	14:14:04	1	-0.0101	1.0	1.00
118	CCV	09 Apr 2009	14:15:02	1	1.7886	1.0	1.00
119	CCB	09 Apr 2009	14:16:00	1	-0.0079	1.0	1.00
120	LCS	09 Apr 2009	14:16:58	1	0.4738	1.0	1.00
121	R0901862-007	09 Apr 2009	14:17:59	1	-0.0101	1.0	1.00
122	R0901862-008	09 Apr 2009	14:18:59	1	-0.0101	1.0	1.00
123	R0901862-009	09 Apr 2009	14:19:58	1	0.0251	1.0	1.00
124	R0901862-010	09 Apr 2009	14:20:57	1	-0.0101	1.0	1.00
125	R0901736-001	09 Apr 2009	14:21:56	1	0.2876	1.0	1.00

-PTC # 3 tray 2-1/2

- neg. peak - <PQL  
 - neg. peak - <PQL  
 - neg. peak - <PQL

- neg. peak - <PQL  
 - neg. peak - <PQL  
 - neg. peak - <PQL  
 - neg. peak - <PQL

OPERATOR: NMEAD  
 ACQ. TIME: Apr 9, 2009 12:21:27  
 DATA FILENAME: C:\OMNION\DATA\090409A1.FDT  
 TRAY FILENAME: C:\OMNION\TRAYS\0904090A.TRA

Multi-Channel Table  
 Type: Unknowns  
 Channel Range: 1 to 8 -- Cup Range: 126 to 150

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	QC 8000 350.1 Ammonia (mg/L)	Man Dil Factor	Auto Dil Factor
126	1736-001 DUP	09 Apr 2009	14:22:56	1	0.2890	1.0	1.00
127	1736-001 SPK TV= 0.500	09 Apr 2009	14:23:55	1	0.6788	1.0	1.00
128	R0901801-001	09 Apr 2009	14:24:54	1	0.3006	1.0	1.00
129	1801-001 DUP	09 Apr 2009	14:25:53	1	0.2998	1.0	1.00
130	1801-001 SPK TV= 0.500	09 Apr 2009	14:26:52	1	0.7245	1.0	1.00
131	CCV	09 Apr 2009	14:27:50	1	1.7896	1.0	1.00
132	CCB	09 Apr 2009	14:28:49	1	-0.0082	1.0	1.00
133	R0901801-002	09 Apr 2009	14:29:47	1	-0.0096	1.0	1.00
134	R0901801-003	09 Apr 2009	14:30:45	1	0.1326	1.0	1.00
135	R0901801-004	09 Apr 2009	14:31:43	1	-0.0051	1.0	1.00
136	R0901801-005	09 Apr 2009	14:32:43	1	0.0788	1.0	1.00
137	R0901801-006	09 Apr 2009	14:33:43	1	0.0031	1.0	1.00 - sm. neg. peak - <PQL
138	R0901801-007	09 Apr 2009	14:34:43	1	0.0728	1.0	1.00
139	R0901801-008	09 Apr 2009	14:35:42	1	-0.0101	1.0	1.00 - neg. peak - <PQL
140	R0901801-009	09 Apr 2009	14:36:41	1	0.1246	1.0	1.00
141	R0901801-010	09 Apr 2009	14:37:40	1	-0.0101	1.0	1.00 - sm. neg. peak - <PQL
142	R0901801-011	09 Apr 2009	14:38:39	1	0.2277	1.0	1.00
143	CCV	09 Apr 2009	14:39:39	1	1.8108	1.0	1.00
144	CCB	09 Apr 2009	14:40:38	1	-0.0092	1.0	1.00
145	LCS	09 Apr 2009	14:41:37	1	0.4731	1.0	1.00
146	R0901801-012	09 Apr 2009	14:42:36	1	0.0801	1.0	1.00
147	1801-012 DUP	09 Apr 2009	14:43:34	1	0.0851	1.0	1.00
148	1801-012 SPK TV= 0.500	09 Apr 2009	14:44:33	1	0.5117	1.0	1.00
149	R0901801-013	09 Apr 2009	14:45:31	1	-0.0027	1.0	1.00 - sm. neg. peak - <PQL
150	R0901801-014	09 Apr 2009	14:46:29	1	-0.0100	1.0	1.00 - sm. neg. peak - <PQL

OPERATOR: NMEAD  
 ACQ. TIME: Apr 9, 2009 12:21:27  
 DATA FILENAME: C:\OMNION\DATA\090409A1.FDT  
 TRAY FILENAME: C:\OMNION\TRAYS\0904090A.TRA

Multi-Channel Table  
 Type: Unknowns  
 Channel Range: 1 to 8 -- Cup Range: 151 to 175

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	QC 8000 350.1 Ammonia (mg/L)	Man Dil Factor	Auto Dil Factor
151	R0901801-015	09 Apr 2009	14:47:29	1	0.2344	1.0	1.00
152	R0901801-016	09 Apr 2009	14:48:29	1	0.0180	1.0	1.00
153	R0901801-017	09 Apr 2009	14:49:29	1	0.3037	1.0	1.00
154	R0901801-018	09 Apr 2009	14:50:30	1	1.7081	1.0	1.00
155	R0901801-019	09 Apr 2009	14:51:29	1	-0.0090	1.0	1.00 - neg peak - <PQL
156	CCV	09 Apr 2009	14:52:28	1	1.8074	1.0	1.00
157	CCB	09 Apr 2009	14:53:27	1	-0.0101	1.0	1.00 <i>OK req. level</i>
158	R0901801-020	09 Apr 2009	14:54:26	1	11.8162	5.0	1.00 - rpt @ # 6 tray 2-1/10
159	R0901801-021	09 Apr 2009	14:55:26	1	-0.0008	1.0	1.00
160	R0901801-022	09 Apr 2009	14:56:25	1	0.0327	1.0	1.00
161	R0901801-023	09 Apr 2009	14:57:24	1	0.3821	1.0	1.00
162	1801-023 DUP	09 Apr 2009	14:58:23	1	0.3827	1.0	1.00
163	1801-023 SPK TV= 0.500	09 Apr 2009	14:59:21	1	0.8372	1.0	1.00
164	R0901801-024	09 Apr 2009	15:00:19	1	0.3795	1.0	1.00
165	R0901801-025	09 Apr 2009	15:01:18	1	0.1105	1.0	1.00
166	R0901801-026	09 Apr 2009	15:02:18	1	0.0020	1.0	1.00 - sm. neg peak - <PQL
167	R0901932-001	09 Apr 2009	15:03:18	1	1.2662	1.0	1.00
168	CCV	09 Apr 2009	15:04:18	1	1.8133	1.0	1.00
169	CCB	09 Apr 2009	15:05:19	1	-0.0004	1.0	1.00
170	LCS	09 Apr 2009	15:06:19	1	0.4713	1.0	1.00
171	1932-001 DUP	09 Apr 2009	15:07:18	1	1.2570	1.0	1.00
172	1932-001 SPK TV= 0.500	09 Apr 2009	15:08:17	1	1.6783	1.0	1.00
173	R0901933-001	09 Apr 2009	15:09:16	1	0.3411	1.0	1.00
174	R0901899-001	09 Apr 2009	15:10:15	1	0.4142	1.0	1.00
175	R0901728-002 RPT 1/2	09 Apr 2009	15:11:15	1	-0.0053	2.0	1.00 - sm. neg peak - <PQL



OPERATOR: NMEAD  
 ACQ. TIME: Apr 9, 2009 12:21:27  
 DATA FILENAME: C:\OMNION\DATA\090409A1.FDT  
 TRAY FILENAME: C:\OMNION\TRAYS\0904090A.TRA

Multi-Channel Table  
 Type: Unknowns  
 Channel Range: 1 to 8 -- Cup Range: 176 to 200

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	QC 8000 350.1 Ammonia (mg/L)	Man Dil Factor	Auto Dil Factor	
176	R0901728-003 RPT 1/2	09 Apr 2009	15:12:14	1	-0.0043	2.0	1.00	> sm. neg. peaks - <PQL
177	1728-003 DUP RPT 1/2	09 Apr 2009	15:13:13	1	-0.0183	2.0	1.00	
178	1728-003SPKRPT1/2TV=0.5	09 Apr 2009	15:14:12	1	0.9957	2.0	1.00	
179	R0901728-005 RPT 1/2	09 Apr 2009	15:15:10	1	-0.0086	2.0	1.00	- sm. neg. peak - <PQL
180	R0901728-006 RPT 1/2	09 Apr 2009	15:16:09	1	-0.0167	2.0	1.00	
181	CCV	09 Apr 2009	15:17:09	1	1.8418	1.0	1.00	
182	CCB	09 Apr 2009	15:18:09	1	-0.0011	1.0	1.00	
183	R0901728-007 RPT 1/2	09 Apr 2009	15:19:10	1	-0.0066	2.0	1.00	- sm. neg. peak - <PQL
184	R0901717-001 RPT 1/100	09 Apr 2009	15:20:10	1	1164.2216	100.0	1.00	- rpt @ #7 tray 2 - 1/1000
185	R0901717-002 RPT 1/50	09 Apr 2009	15:21:10	1	442.5175	50.0	1.00	- rpt @ #8 tray 2 - 1/500
186	R0901771-001 RPT	09 Apr 2009	15:22:10	1	-0.0031	1.0	1.00	- sm. neg. peak - <PQL
187	R0901722-001 RPT 1/500	09 Apr 2009	15:23:11	1	626.4910	500.0	1.00	
188	R0901722-002 RPT 1/2	09 Apr 2009	15:24:10	1	1.2582	2.0	1.00	
189	R0901722-006 RPT 1/10	09 Apr 2009	15:25:09	1	10.3486	10.0	1.00	
190	R0901722-011 RPT 1/200	09 Apr 2009	15:26:08	1	252.7690	200.0	1.00	
191	R0901722-012 RPT 1/2	09 Apr 2009	15:27:07	1	3.0060	2.0	1.00	
192	R0901722-013 RPT 1/4	09 Apr 2009	15:28:07	1	5.0872	4.0	1.00	
193	CCV	09 Apr 2009	15:29:06	1	1.8414	1.0	1.00	
194	CCB	09 Apr 2009	15:30:05	1	0.0034	1.0	1.00	
195	LCS	09 Apr 2009	15:31:03	1	0.5032	1.0	1.00	
196	R0901722-014 RPT 1/5	09 Apr 2009	15:32:03	1	7.2049	5.0	1.00	
197	R0901804-002 RPT 1/2	09 Apr 2009	15:33:04	1	0.2198	2.0	1.00	- double peak - rpt @ #9 tray
198	R0901804-005 RPT 1/2	09 Apr 2009	15:34:05	1	0.5667	2.0	1.00	- double peak - rpt @ #10 tray 2 - 1/4
199	CCV	09 Apr 2009	15:35:05	1	1.8658	1.0	1.00	
200	CCB	09 Apr 2009	15:36:05	1	-0.0087	1.0	1.00	

OPERATOR: NMEAD  
 ACQ. TIME: Apr 9, 2009 15:39:27  
 DATA FILENAME: C:\OMNION\DATA\090409A2.FDT  
 TRAY FILENAME: C:\OMNION\TRAYS\090409A2.TRA

Multi-Channel Table  
 Type: Unknowns  
 Channel Range: 1 to 8 -- Cup Range: 1 to 25

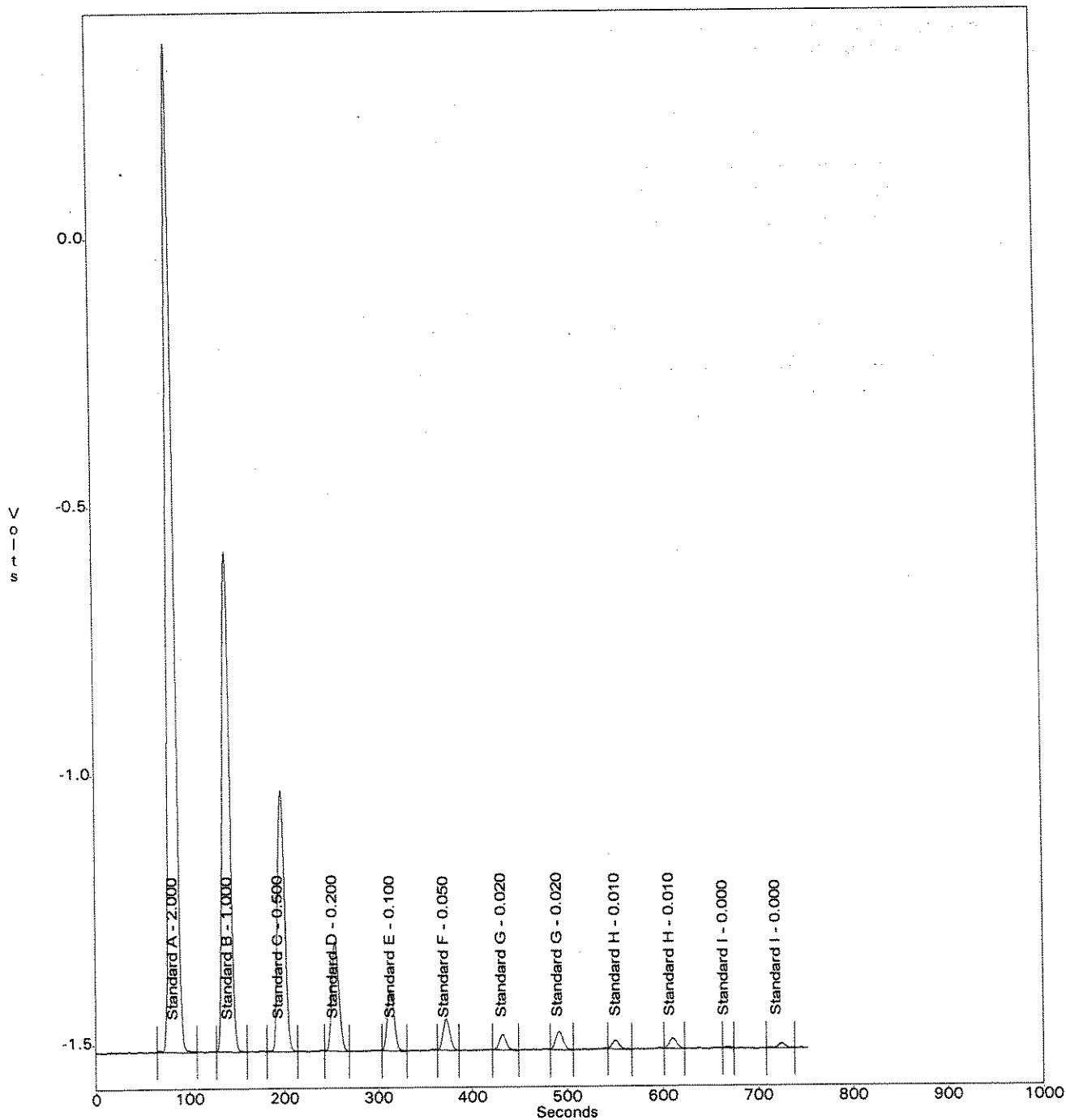
Cup	Sample ID	Sampling Date	Sampling Time	Rep #	QC 8000 350.1 Ammonia (mg/L)	Man Dil Factor	Auto Dil Factor
1	R0901804-006 RPT 1/2	09 Apr 2009	15:39:30	1	-0.0202	2.0	1.00
2	R0901804-003 RPT 1/2	09 Apr 2009	15:40:29	1	-0.0202	2.0	1.00
3	R0901679-007 RPT 1/2	09 Apr 2009	15:41:27	1	2.8463	2.0	1.00
4	R0901947-001	09 Apr 2009	15:42:25	1	-0.0090	1.0	1.00
5	R0901948-001	09 Apr 2009	15:43:23	1	10.6612	10.0	1.00
6	R0901801-020 RPT 1/10	09 Apr 2009	15:44:22	1	12.2713	10.0	1.00
7	R0901717-001 RPT 1/1000	09 Apr 2009	15:45:20	1	1434.7349	1000.0	1.00
8	R0901717-002 RPT 1/500	09 Apr 2009	15:46:17	1	479.1126	500.0	1.00
9	R0901804-002 RPT 1/4	09 Apr 2009	15:47:14	1	0.3094	4.0	1.00
10	R0901804-005 RPT 1/4	09 Apr 2009	15:48:11	1	0.8400	4.0	1.00
11	CCV	09 Apr 2009	15:49:08	1	1.8597	1.0	1.00
12	CCB	09 Apr 2009	15:50:05	1	-0.0101	1.0	1.00

*neg peak - < PQL*  
*neg peak - < PQL*

OPERATOR:  
ACQ. TIME:  
DATA FILENAME:  
TRAY FILENAME:

NMEAD  
Apr 9, 2009 11:45:28  
C:\OMNION\DATA\0904090A.FDT  
C:\OMNION\TRAYS\0904090A.TRA

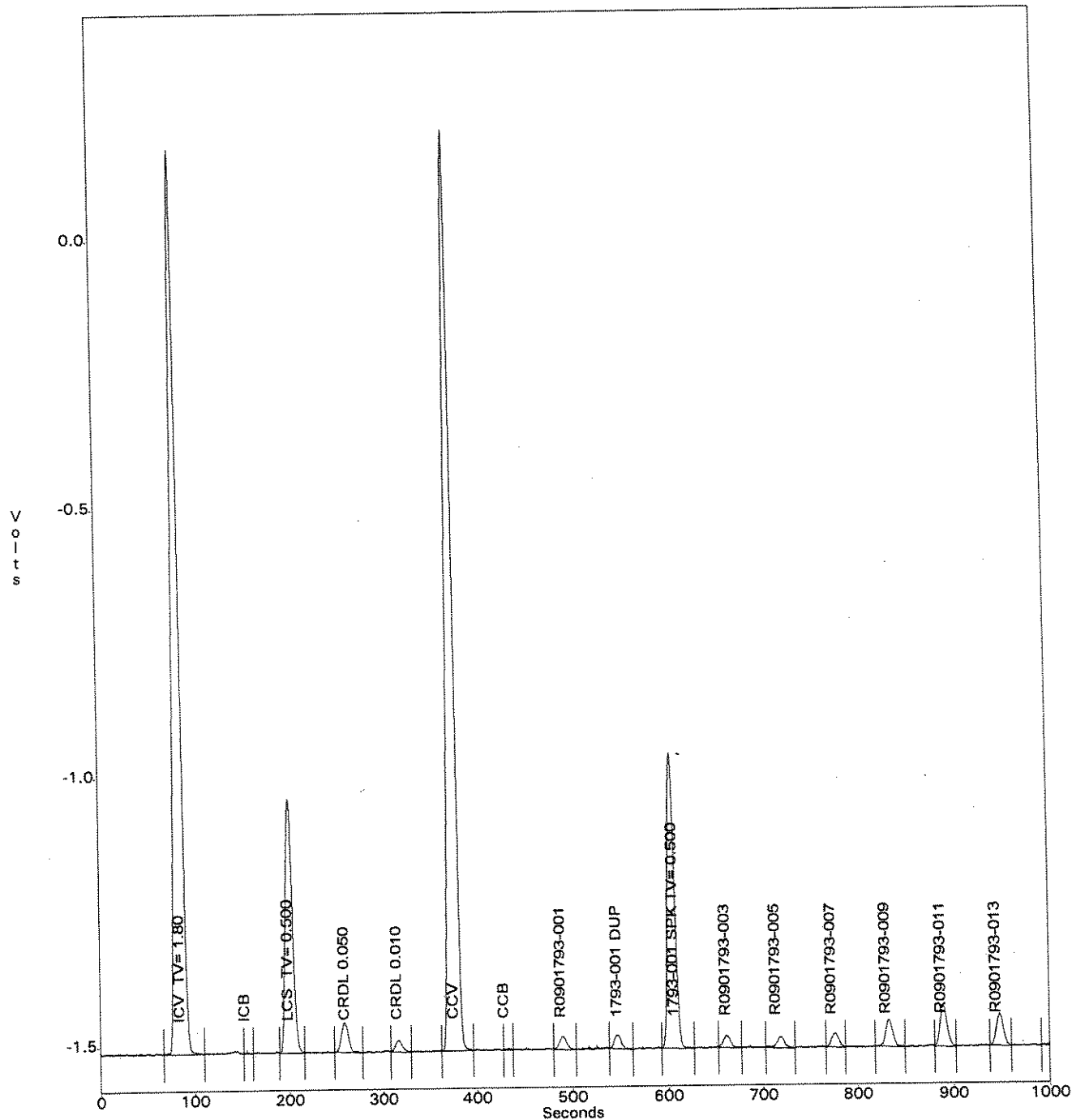
Channel 1 - QC 8000 350.1 Ammonia



OPERATOR:  
ACQ. TIME:  
DATA FILENAME:  
TRAY FILENAME:

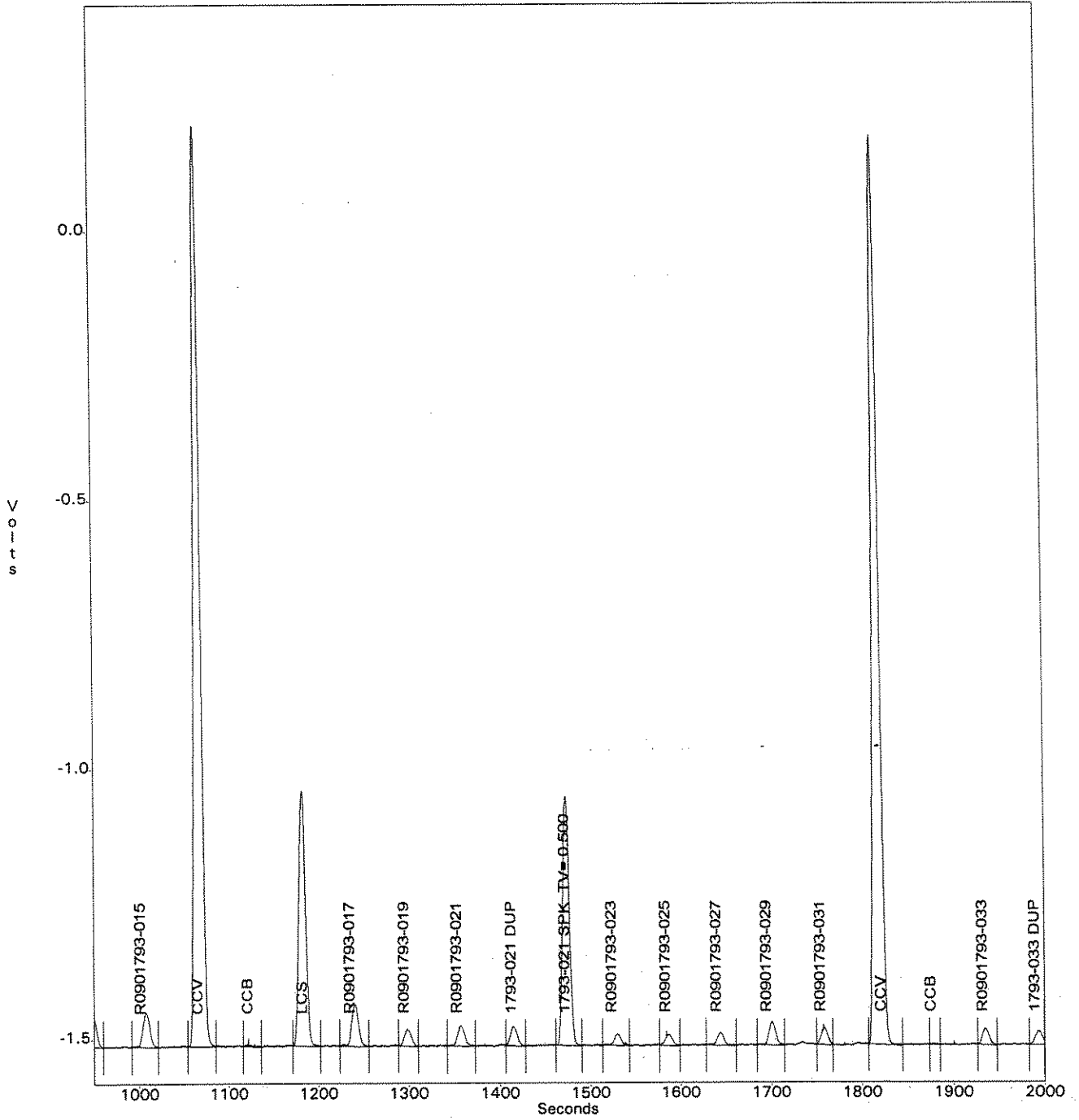
NMEAD  
Apr 9, 2009 12:21:27  
C:\OMNION\DATA\090409A1.FDT  
C:\OMNION\TRAYS\0904090A.TRA

Channel 1 - QC 8000 350.1 Ammonia



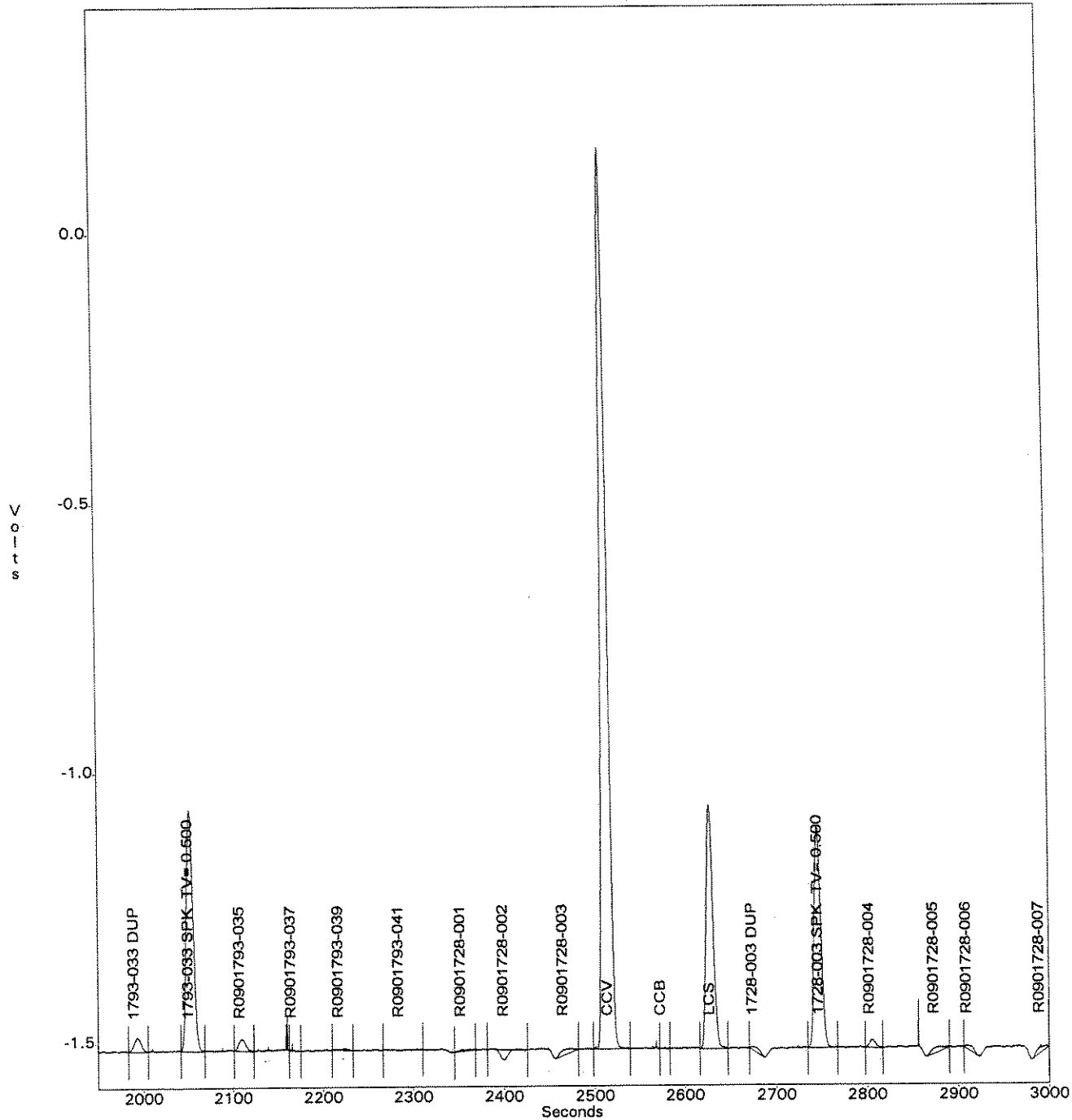
OPERATOR: NMEAD  
ACQ. TIME: Apr 9, 2009 12:21:27  
DATA FILENAME: C:\OMNION\DATA\090409A1.FDT  
TRAY FILENAME: C:\OMNION\TRAYS\0904090A.TRA

Channel 1 - QC 8000 350.1 Ammonia



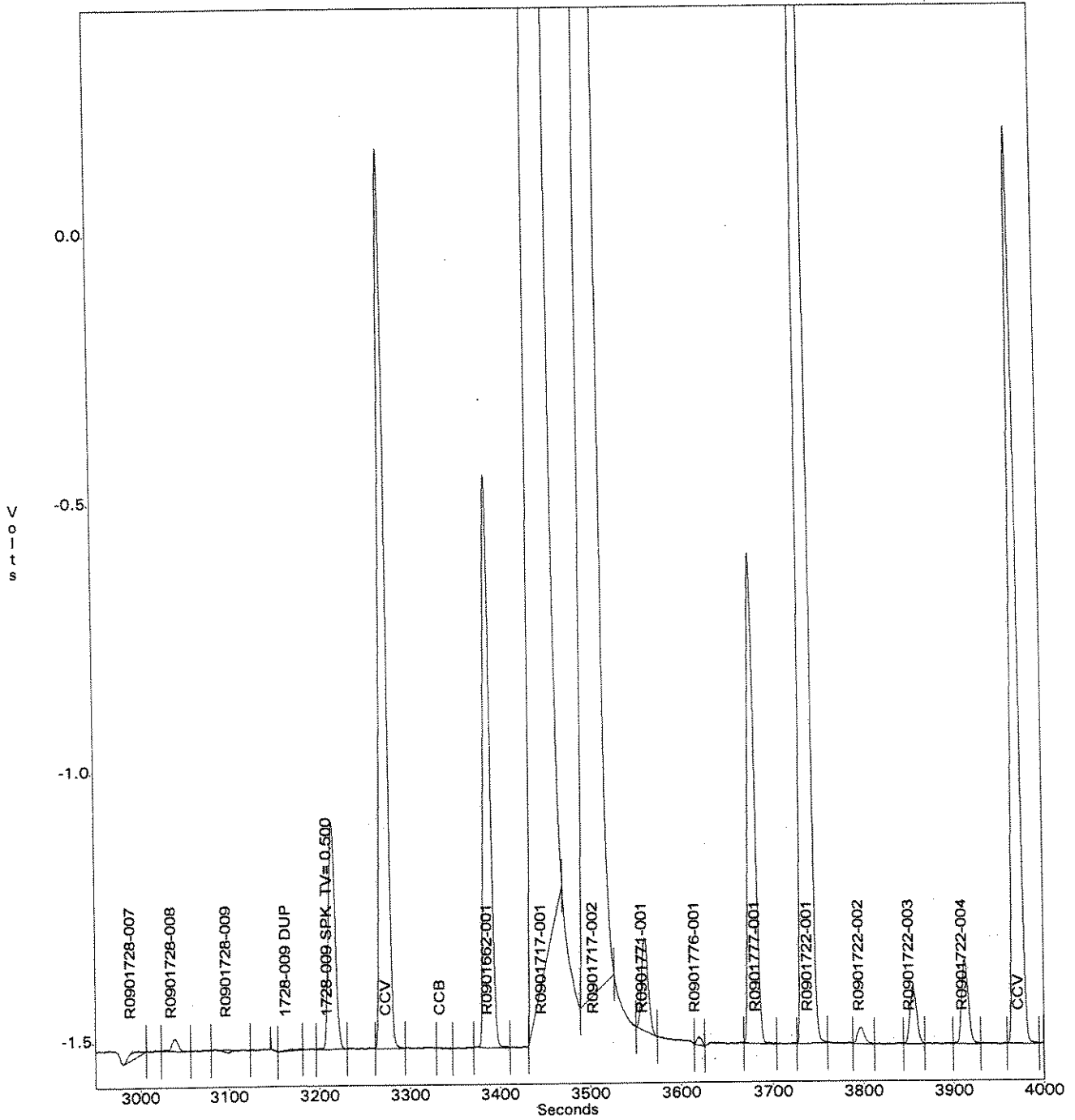
OPERATOR: NMEAD  
ACQ. TIME: Apr 9, 2009 12:21:27  
DATA FILENAME: C:\OMNION\DATA\090409A1.FDT  
TRAY FILENAME: C:\OMNION\TRAYS\0904090A.TRA

Channel 1 - QC 8000 350.1 Ammonia



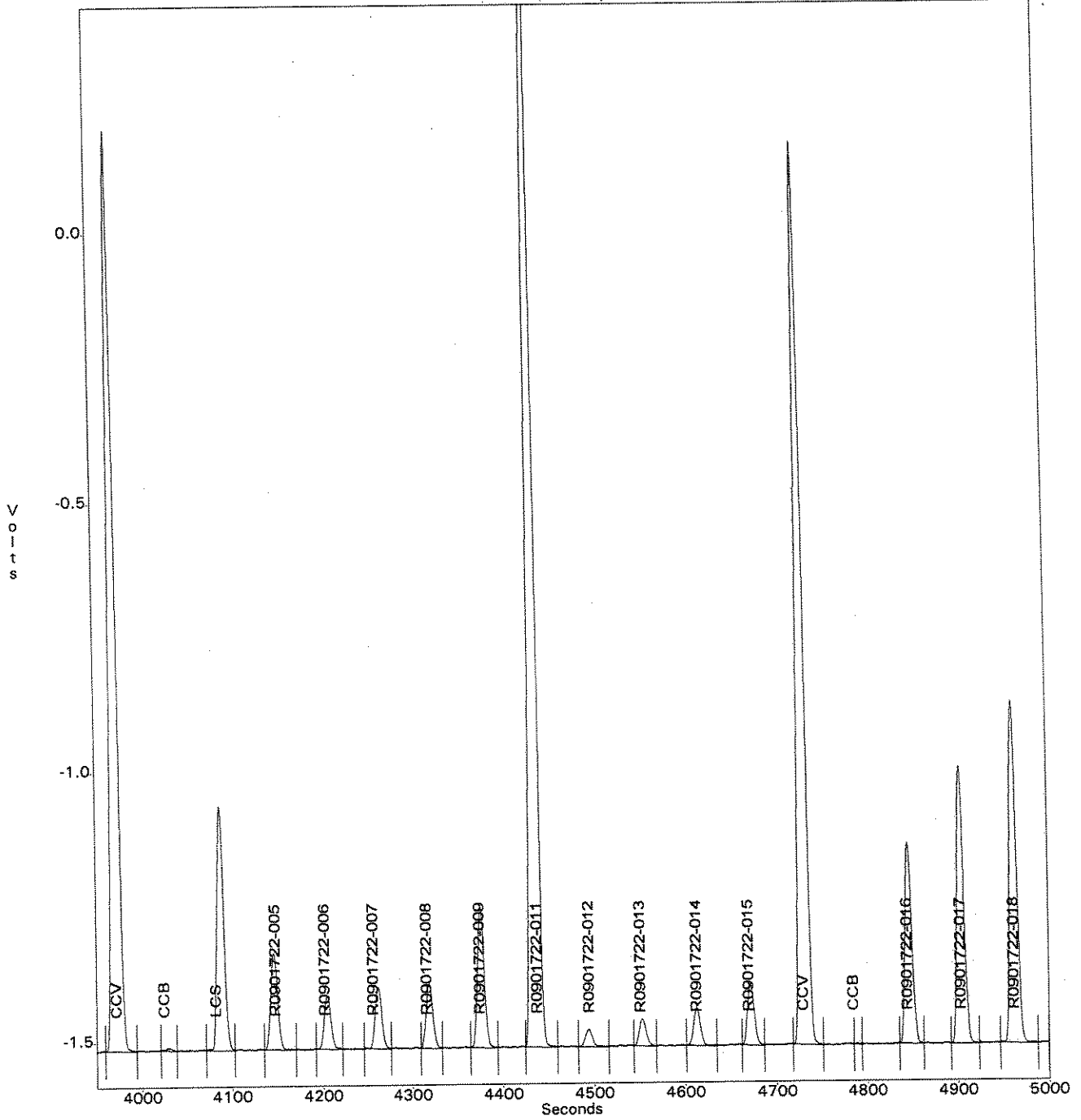
OPERATOR: NMEAD  
ACQ. TIME: Apr 9, 2009 12:21:27  
DATA FILENAME: C:\OMNION\DATA\090409A1.FDT  
TRAY FILENAME: C:\OMNION\TRAYS\0904090A.TRA

Channel 1 - QC 8000 350.1 Ammonia



OPERATOR: NMEAD  
ACQ. TIME: Apr 9, 2009 12:21:27  
DATA FILENAME: C:\OMNION\DATA\090409A1.FDT  
TRAY FILENAME: C:\OMNION\TRAYS\0904090A.TRA

Channel 1 - QC 8000 350.1 Ammonia

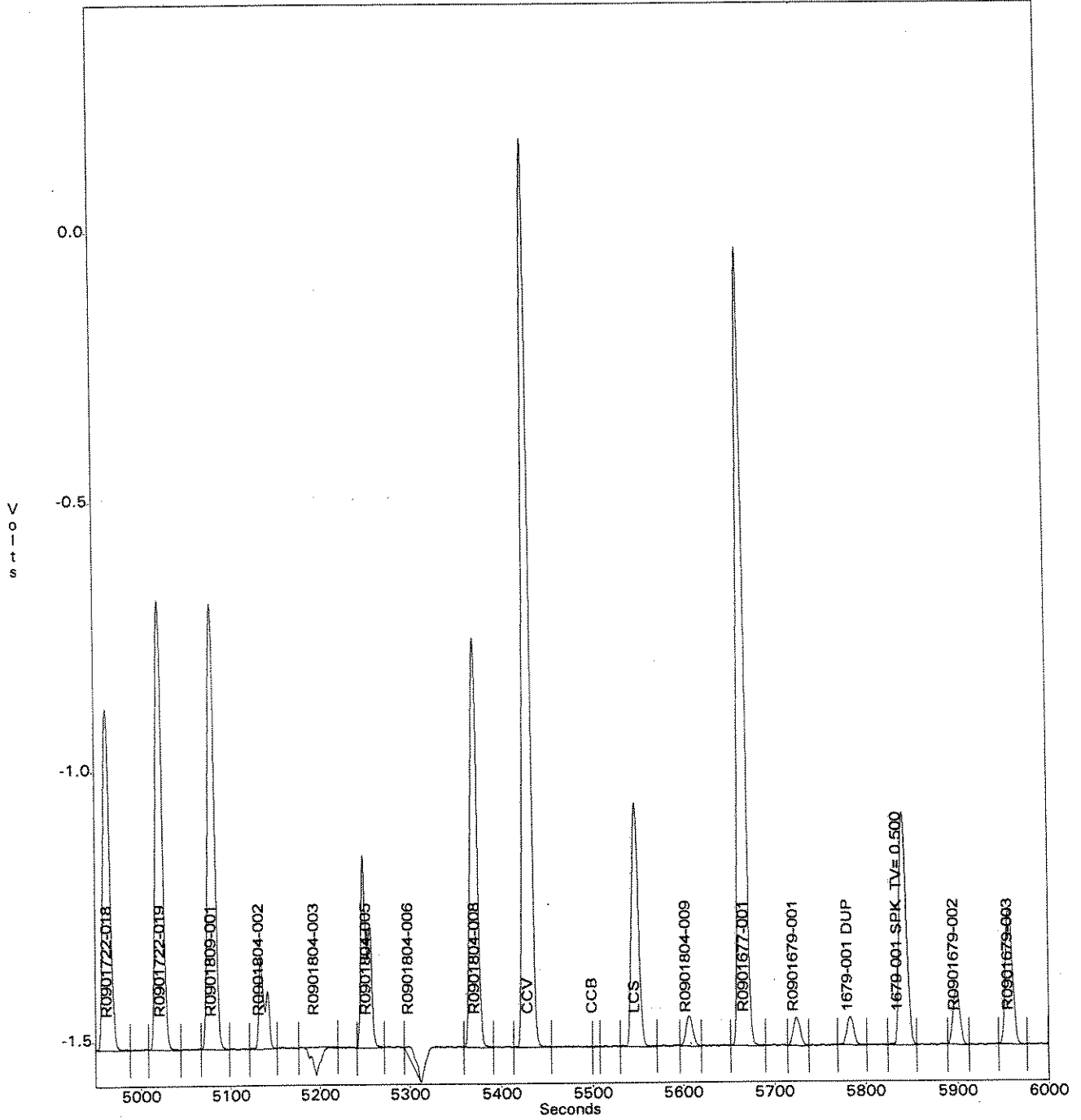




OPERATOR:  
ACQ. TIME:  
DATA FILENAME:  
TRAY FILENAME:

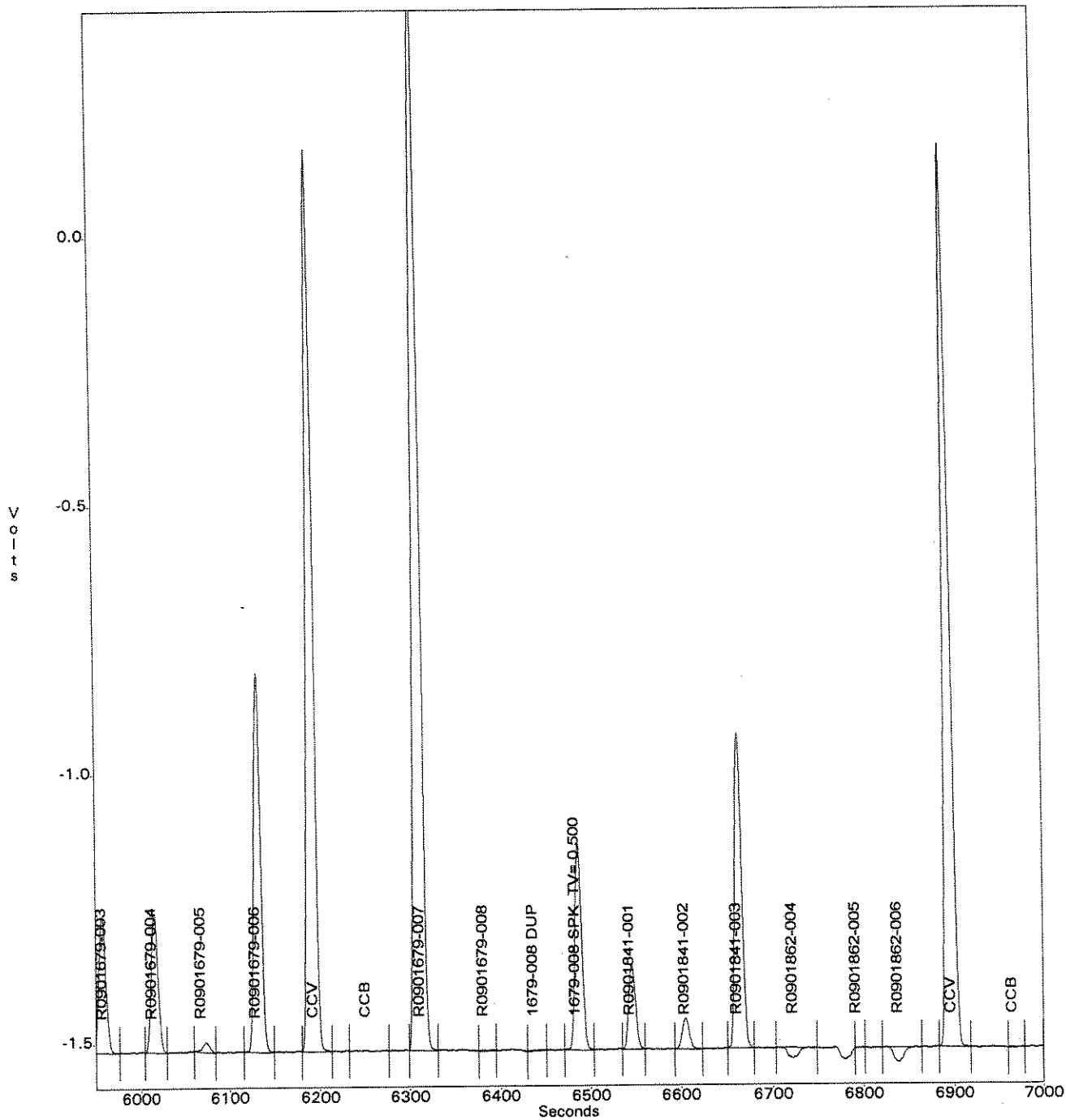
NMEAD  
Apr 9, 2009 12:21:27  
C:\OMNION\DATA\090409A1.FDT  
C:\OMNION\TRAYS\0904090A.TRA

Channel 1 - QC 8000 350.1 Ammonia



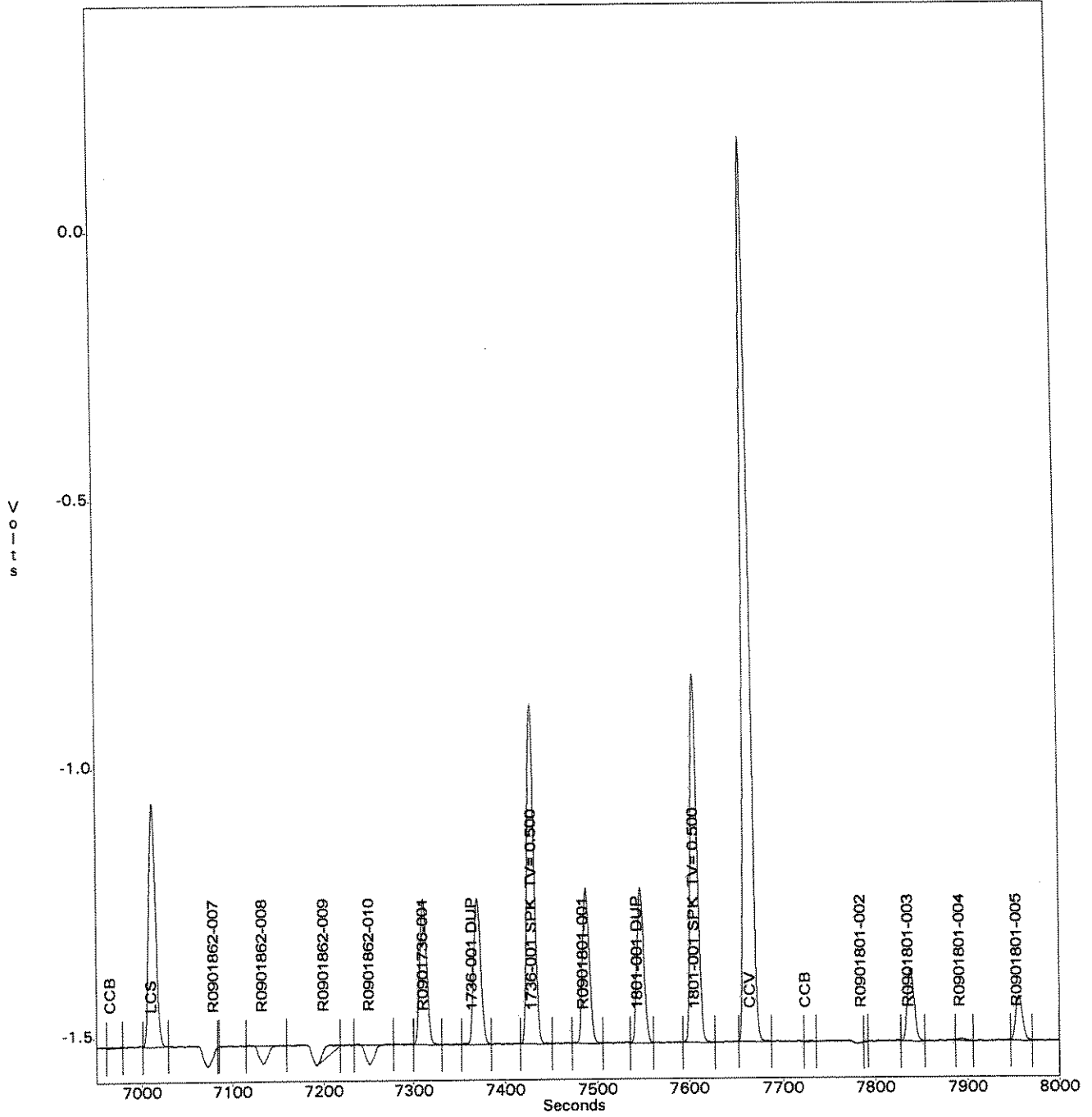
OPERATOR: NMEAD  
ACQ. TIME: Apr 9, 2009 12:21:27  
DATA FILENAME: C:\OMNION\DATA\090409A1.FDT  
TRAY FILENAME: C:\OMNION\TRAYS\0904090A.TRA

Channel 1 - QC 8000 350.1 Ammonia



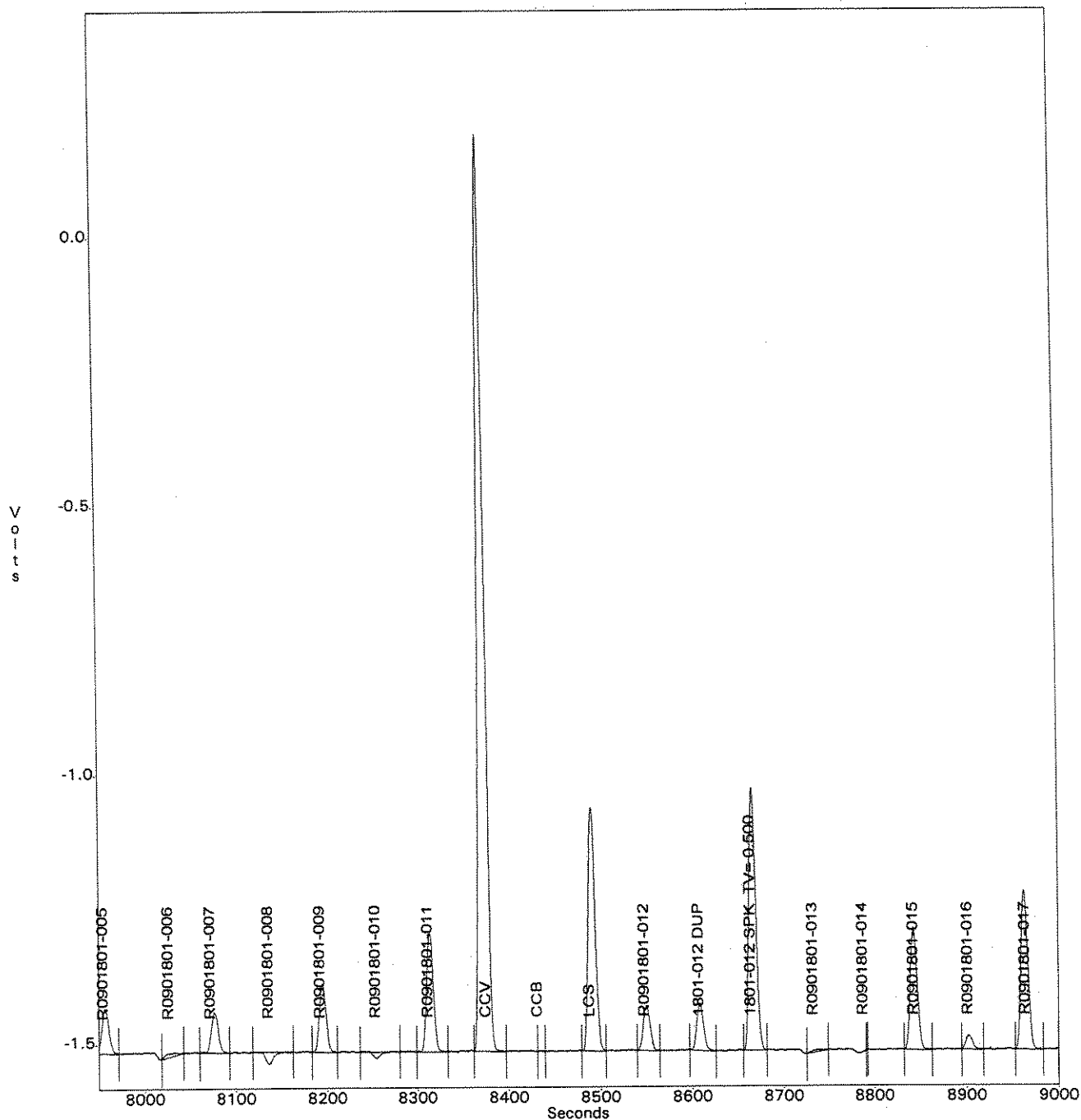
OPERATOR: NMEAD  
ACQ. TIME: Apr 9, 2009 12:21:27  
DATA FILENAME: C:\OMNION\DATA\090409A1.FDT  
TRAY FILENAME: C:\OMNION\TRAYS\0904090A.TRA

Channel 1 - QC 8000 350.1 Ammonia



OPERATOR: NMEAD  
ACQ. TIME: Apr 9, 2009 12:21:27  
DATA FILENAME: C:\OMNION\DATA\090409A1.FDT  
TRAY FILENAME: C:\OMNION\TRAYS\0904090A.TRA

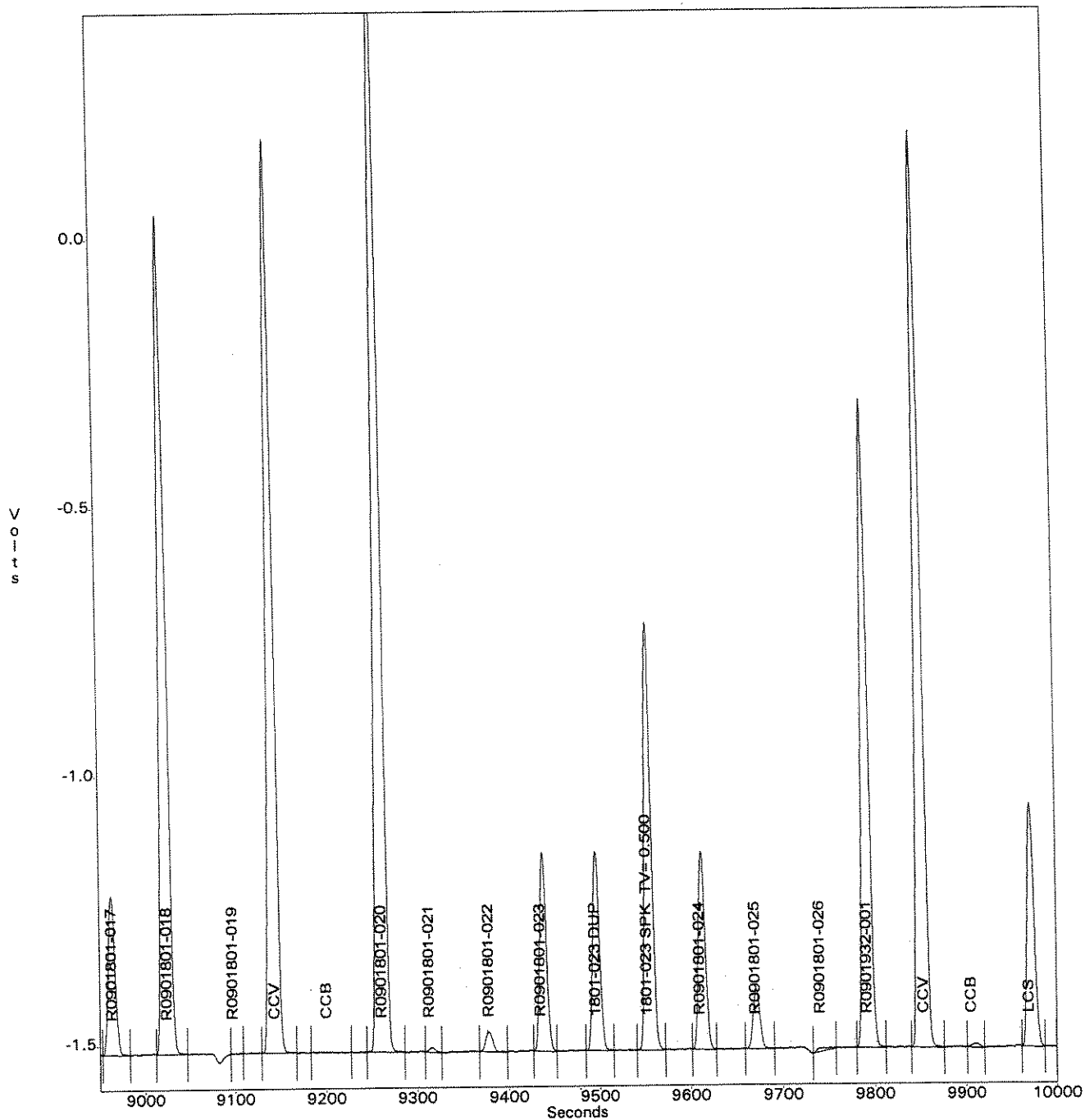
Channel 1 - QC 8000 350.1 Ammonia



OPERATOR:  
ACQ. TIME:  
DATA FILENAME:  
TRAY FILENAME:

NMEAD  
Apr 9, 2009 12:21:27  
C:\OMNION\DATA\090409A1.FDT  
C:\OMNION\TRAYS\0904090A.TRA

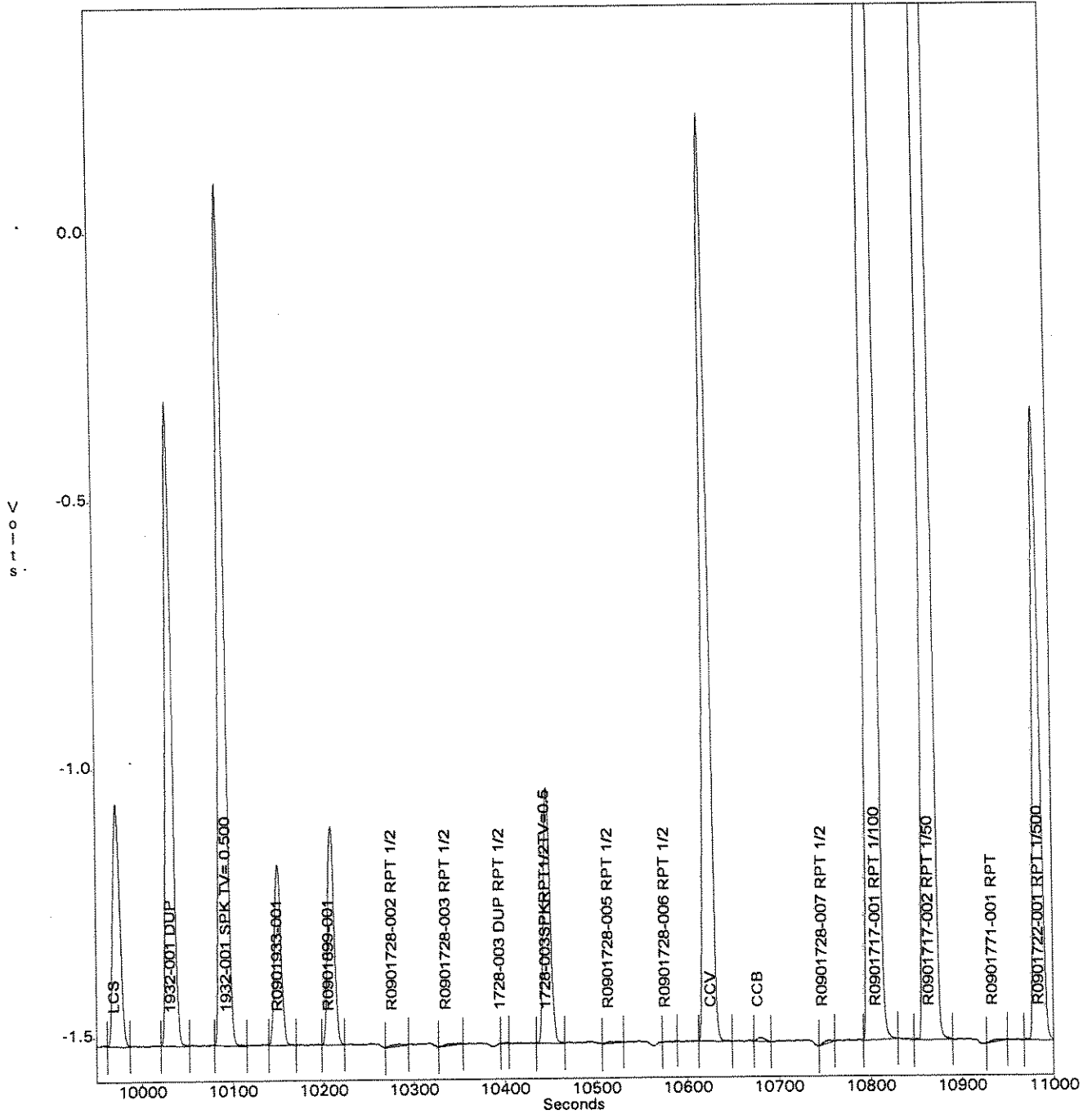
Channel 1 - QC 8000 350.1 Ammonia



OPERATOR:  
ACQ. TIME:  
DATA FILENAME:  
TRAY FILENAME:

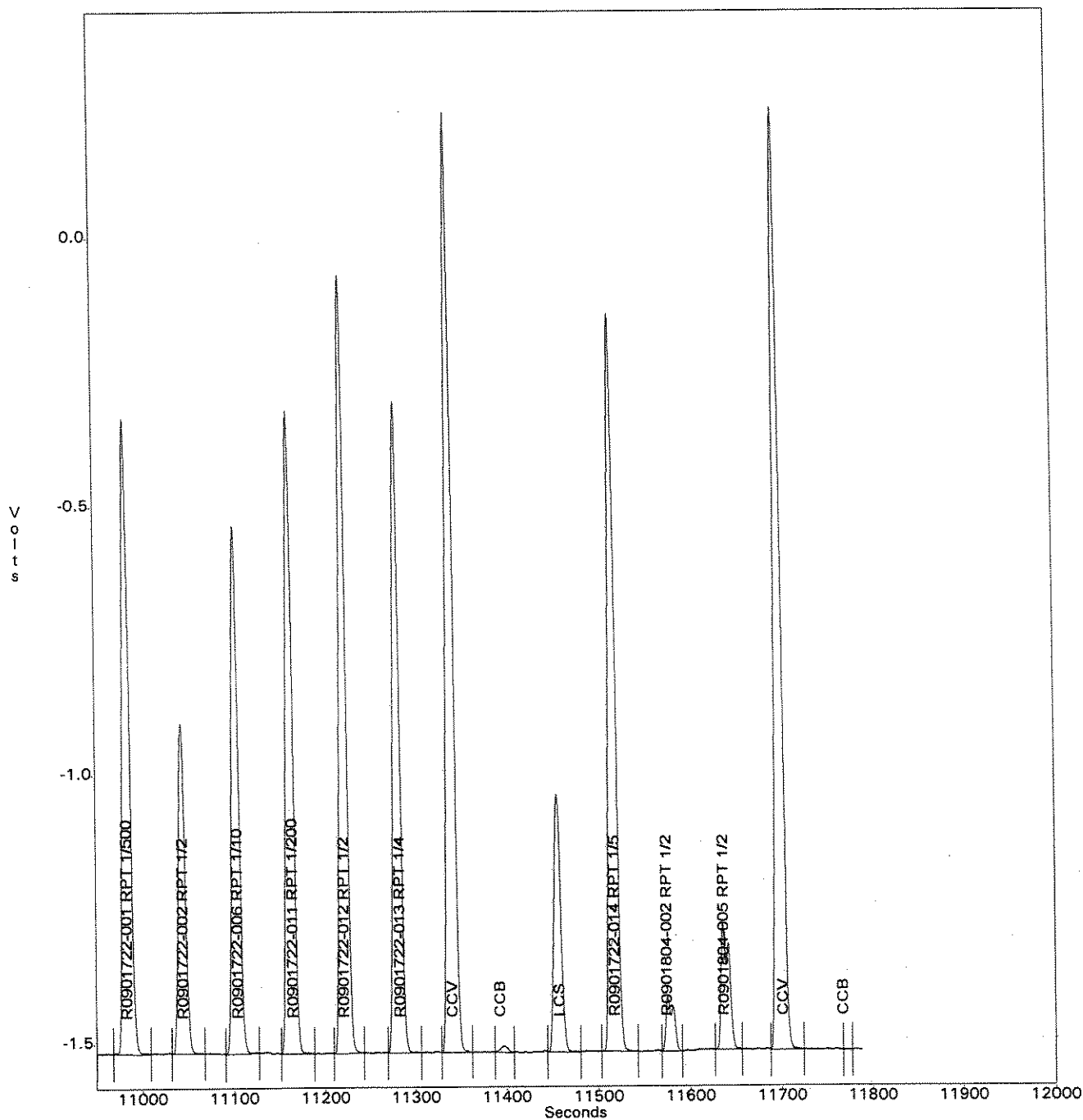
NMEAD  
Apr 9, 2009 12:21:27  
C:\OMNION\DATA\090409A1.FDT  
C:\OMNION\TRAYS\0904090A.TRA

Channel 1 - QC 8000 350.1 Ammonia



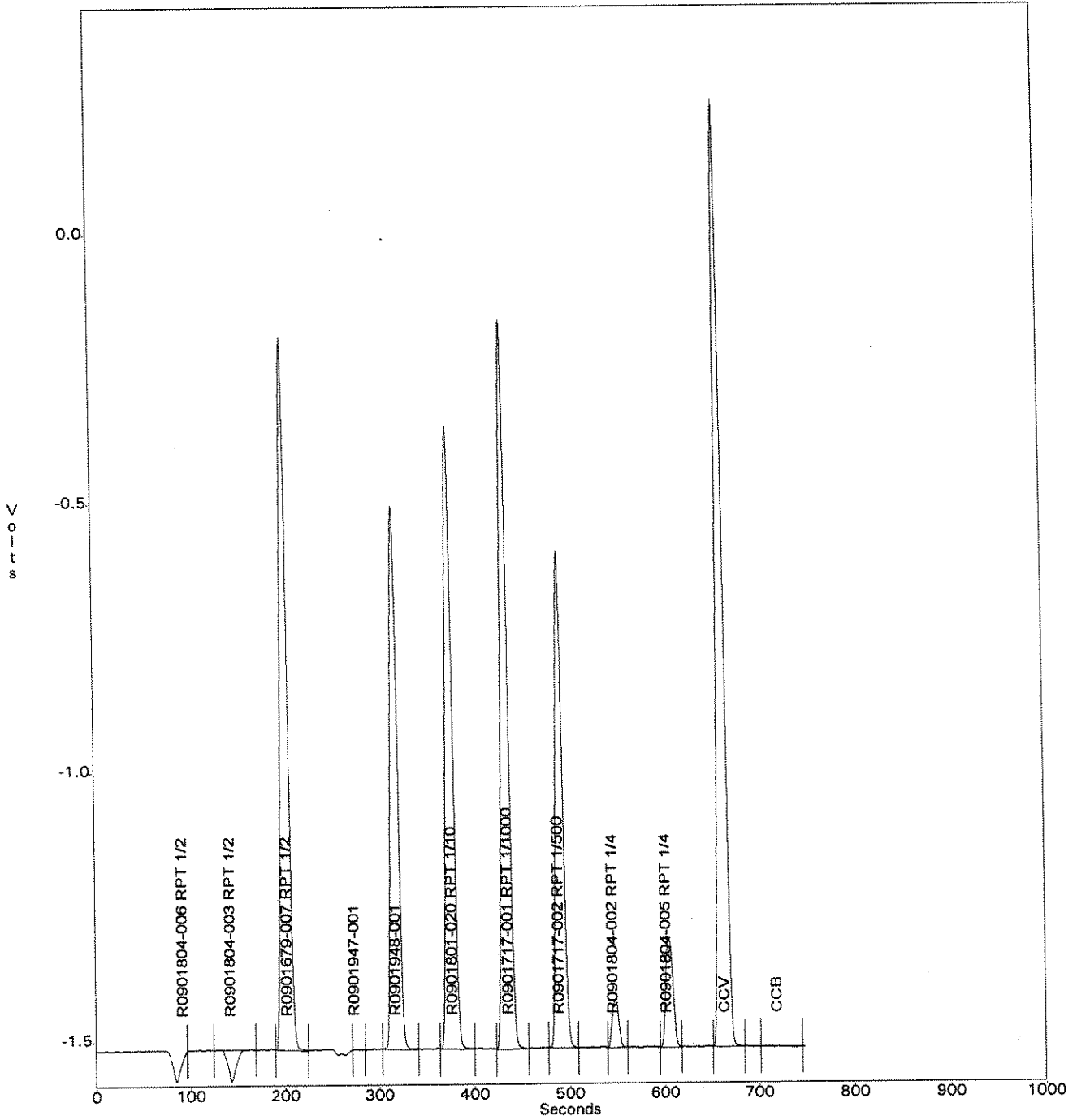
OPERATOR: NMEAD  
ACQ. TIME: Apr 9, 2009 12:21:27  
DATA FILENAME: C:\OMNION\DATA\090409A1.FDT  
TRAY FILENAME: C:\OMNION\TRAYS\0904090A.TRA

Channel 1 - QC 8000 350.1 Ammonia



OPERATOR: NMEAD  
ACQ. TIME: Apr 9, 2009 15:39:27  
DATA FILENAME: C:\OMNION\DATA\090409A2.FDT  
TRAY FILENAME: C:\OMNION\TRAYS\090409A2.TRA

Channel 1 - QC 8000 350.1 Ammonia





OPERATOR: NMEAD  
 ACQ. TIME: Apr 9, 2009 11:45:28  
 DATA FILENAME: C:\OMNION\DATA\0904090A.FDT  
 METHOD FILENAME:  
 TRAY FILENAME: C:\OMNION\TRAYS\0904090A.TRA

## TRAY DESCRIPTION:

Created: Apr 8, 2009 15:44:47  
 Modified: Apr 9, 2009 9:30:38  
 QC 8000 350.1 Ammonia - RUN LOG - 0904090A

## DATA DESCRIPTION:

Created: Apr 9, 2009 11:45:28  
 Modified: Apr 9, 2009 11:45:28

## Method - Ch. 1 (QC 8000 350.1 Ammonia)

## METHOD DESCRIPTION:

Created: Jun 8, 2007 13:44:01  
 Modified: Mar 27, 2009 14:49:34  
 Ammonia

## ANALYTE DATA:

Analyte Name: QC 8000 350.1 Ammonia  
 Concentration Units: mg/L  
 Chemistry: Direct  
 Inject to Peak Start (s): 28.5  
 Peak Base Width (s): 22.000  
 % Width Tolerance: 50.000  
 Threshold: 2877.000  
 Autodilution Trigger: Off  
 QuikChem Method:

## CALIBRATION DATA:

## Levels:

1 : 2.000	2 : 1.000	3 : 0.500	4 : 0.200
5 : 0.100	6 : 0.050	7 : 0.020	8 : 0.010
9 : 0.000			

Calibration Rep Handling: Average  
 Calibration Fit Type: 1st Order Poly  
 Force Though Zero: No  
 Weighting Method: 1/X  
 Concentration Scaling: None

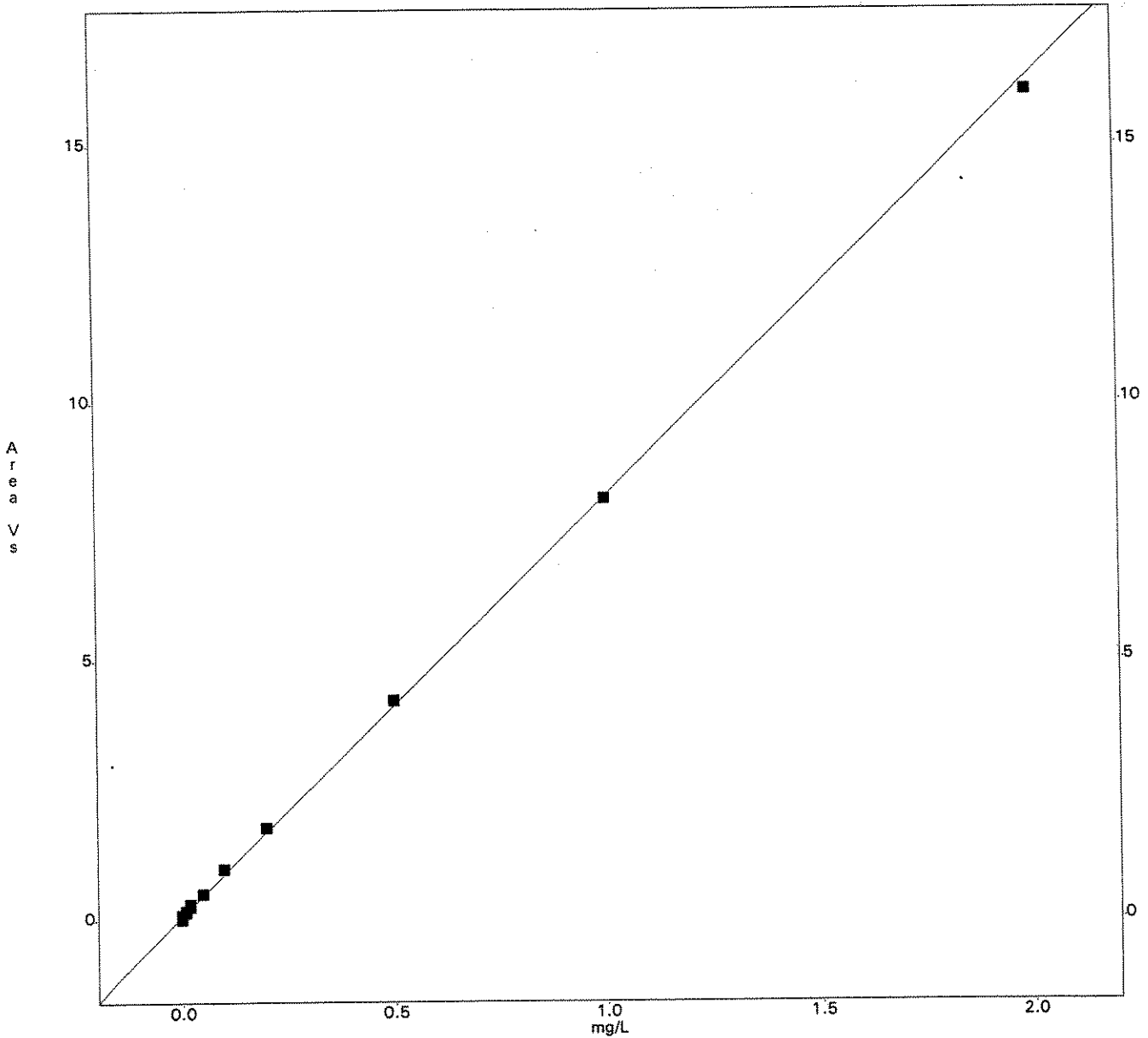
QC 8000 350.1 Ammonia

Lvl	Area	mg/L	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Replic STD	Replic % RSD	Residual 1st Poly
1	16024256	2.00	16024256					0.0	0.0	1.7
2	8136791	1.00	8136791					0.0	0.0	0.6
3	4237594	0.50	4237594					0.0	0.0	-2.5
4	1776486	0.20	1776486					0.0	0.0	-4.5
5	990803	0.10	990803					0.0	0.0	-12.1
6	514208	0.05	514208					0.0	0.0	-6.6
7	282741	0.02	305978	259504				32862.1	11.6	-23.8
8	164565	0.01	178682	150448				19964.5	12.1	-1.8
9	61254	0.00	99971	22536				54754.8	89.4	

1st Order Poly  
 Conc = 1.234e-007 Area - 1.012e-002  
 r = 0.9998

Pipette ID's: E1  
 Hamy

Scaling: None - Weighting: 1/X



Printed: Thursday, April 09, 2009 - 11:58 AM

Columbia Analytical Services  
 1 Mustard St., Rochester NY 14609

General Chemistry Analytical Run Cover Sheet

Analyst: N. Mead

Date: 4/9/09

Analysis: Ammonia

Instrument: Lachat

Quality Control:

	Same as Log#, Date,	Stocks Prep. Log#, Date,	Stock Sol (mLs)	Stock Sol (mg/L)	Final Vol (mLs)	True Value (mg/L)
a) Standards Prep.:	WC65166A, 4/7/03	WC85257E, 1/19/09				
b) ICV Preparation:	WC65166B, 4/7/03	WC85257G, 1/19/09	1	18	10	1.80
c) LCS Preparation:	WC65166D, 4/7/03	WC85257E, 1/19/09	0.05	100	10	0.50
d) Matrix Spike Prep.:	WC65166D, 4/7/03	WC85257E, 1/19/09	0.05	100	10	0.50

Instrument log filled in?  (Y)  (N)

Packages: Copy and attach Standards Preparation

Comments:

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Production:

	Start Time	End Time	Total (minutes)
Preparation Time:			
Analytical Time:			
Finish Time:			

# of Samples (including Mtx QC): \_\_\_\_\_

Repeats due to Sample: \_\_\_\_\_

Repeats due to Error: \_\_\_\_\_

p:\greg\forms\cover.no2

4/7/03  
DMGAmmonia ( $\text{NH}_3$ ) [LaChat: pp1 = 0.050-Reg Level, 0.010

## (A) STANDARDS

STD.	CONC (mg/L)	mls 100ppm (w665166C)	mls Carrier-diluent
A	2.000	2.00	8.00
B	1.000	1.00	9.00
C	0.500	0.50	9.50
D	0.200	0.20	9.80
E	0.100	$\frac{1}{10}$ Dil'n of STD B.) 1.000	
F	0.050	$\frac{1}{10}$ Dil'n of STD C.) 0.500	
G	0.020	$\frac{1}{10}$ Dil'n of STD D.) 0.200	
H	0.010	$\frac{1}{10}$ Dil'n of STD E.) 0.100	
I	0.000	10 mls of Carrier-diluent	

## (B) Iev/cev: (TV = 1.80 mg/L)

Do two (2)  $\frac{1}{10}$  serial dilutions of the 180 ppm Reference Stock (w665166B). Prepare using Carrier-Diluent (w665166F)

## (C) 10.0 ppm Working Stock

Do two (2)  $\frac{1}{10}$  serial dilutions of the 1000 ppm Standard Stock (w665166A). Prepare using Carrier-Diluent (w665166F)

## (D) LES/Matrix Spike: (TV = 0.500 mg/L)

Add 0.050 mls 100 ppm working Stock (w665166C, 1st  $\frac{1}{10}$  serial dilution) to 10 mls Carrier-Diluent (w665166F) or sample.

run.  
at 4C  
to 1000 g w/DI.  
(735D)

1/15/09  
NMI  
① Buffer - NH3  
- same as WCSS 247I. Exp. 1 year, 1/15/10.

② Buffer - TKN  
- same as WCSS 246C. Exp. 1 month, 2/15/09.

1/3/09  
C  
③ NO<sub>2</sub> color Reagent - Kunkelab  
In 100 ml vol flask, dissolve 1.00g sulfamide (WC65167F) and 0.10g NED (WC76224H) in 10ml H<sub>2</sub>PO<sub>4</sub> (WC762514F) Bring to volume with DI. Store at 4C Exp 2/15/09

1/14/09  
B  
④ Rhodazine Indicator Solution  
Dissolve 0.020g 5-(4-DMAA) Rhodamine (WC76015E) in 100 mL acetone (WC69232E). Store in glass @ R.T. Expires 1/19/10

Diphenylcarbohydrazide in  
ing to volume. Store at

1/19/09  
SBR  
⑤ NH<sub>3</sub> / TKN 1000 ppm Standard Stock

3819g granular NH<sub>4</sub>Cl (WC85085F), previously dried for 2 hrs @ 140°C dissolve in ~800 mL DI in a 1 L volumetric flask. Bring to volume with DI. Store @ 4°C in amber glass. Expires 1/19/10

n x 3.

each run,

⑥ 500 ppm Organic TKN Standard

In a 1 Liter vol. flask, dissolve 5.252g L-glutamic acid (WC85029A) in ~800 mL DI. Bring to volume with DI. Store @ 4°C in amber glass Expires 1/19/10.  
TV = 500 mg/L nitrogen

2/1/09.

Enochrome BlackT  
Shake well to mix.

⑦ NH<sub>3</sub> 180 ppm Reference Stock

0.687g granular NH<sub>4</sub>Cl (WC85085G), previously dried for 2 hrs @ 104°C dissolve in ~800 mL DI in a 1 L vol. flask. Bring to volume with DI Store @ 4°C in amber glass. Expires 1/19/10.

1 DI Fresh per run

⑧ TKN 400 ppm Reference Stock

1.5276g granular NH<sub>4</sub>Cl (WC85085L), previously dried for 2 hrs @ 104°C dissolve in ~800 mL DI in a 1 L vol. flask. Bring to volume with DI. Store @ 4°C in amber glass Expires 1/19/10.

> with DI. Fresh per run.

1/19/09  
EW

⑨ TSS Reference

0.212g Kaolin (WC69285G) brought to 1000g w/DI. Store in plastic bottle @ 4°C. (7483)  
TV = 212 mg/L Exp: 1/19/10

0.10g EDTA (WC65210C)  
amber glass

# Analytical Results Summary

Instrument Name: R-Discrete-01      Analyst: GNITAJOU PPI      Analysis Lot: 148134      Method/Testcode: 353.2/NO2

Lab Code	Target Analytes	QC Type	Parent Sample	Matrix	Sample Amt.	Final Result	Dil	POL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ0902111-01	Nitrite as Nitrogen	MB		Water	10 mL	0.004 J	1	0.010			3/27/09 15:57:58	N	IV
RQ0902111-02	Nitrite as Nitrogen	LCS		Water	10 mL	0.254	1	0.010	102		3/27/09 15:57:59	N	IV
R0901679-001	Nitrite as Nitrogen	N/A		Water	10 mL	0.010 U	1	0.010			3/27/09 16:00:24	Y	IV
RQ0902111-04	Nitrite as Nitrogen	DUP	R0901679-001	Water	10 mL	0.002 J	1	0.010		NC	3/27/09 16:02:51	N	IV
RQ0902111-03	Nitrite as Nitrogen	MS	R0901679-001	Water	10 mL	0.256	1	0.010	103		3/27/09 16:02:52	N	IV
R0901679-002	Nitrite as Nitrogen	N/A		Water	10 mL	0.010 U	1	0.010			3/27/09 16:02:53	N	IV
R0901679-003	Nitrite as Nitrogen	N/A		Water	10 mL	0.010 U	1	0.010			3/27/09 16:05:18	N	IV
R0901679-004	Nitrite as Nitrogen	N/A		Water	10 mL	0.010 U	1	0.010			3/27/09 16:05:19	N	IV
R0901679-005	Nitrite as Nitrogen	N/A		Water	10 mL	0.010 U	1	0.010			3/27/09 16:05:20	N	IV
R0901679-006	Nitrite as Nitrogen	N/A		Water	10 mL	0.010 U	1	0.010			3/27/09 16:07:45	N	IV
R0901679-007	Nitrite as Nitrogen	N/A		Water	10 mL	0.010 U	1	0.010			3/27/09 16:07:46	N	IV
R0901679-008	Nitrite as Nitrogen	N/A		Water	10 mL	0.010 U	1	0.010			3/27/09 16:07:47	N	IV

R1679

Reviewed & Approved

By: SKP  
Date: 7/4/09

00410

Columbia Analytical Services  
 Rochester, NY 14607  
 Analyst: *GN/TA*  
 Pipette: *E1*

3/27/2009 15:43  
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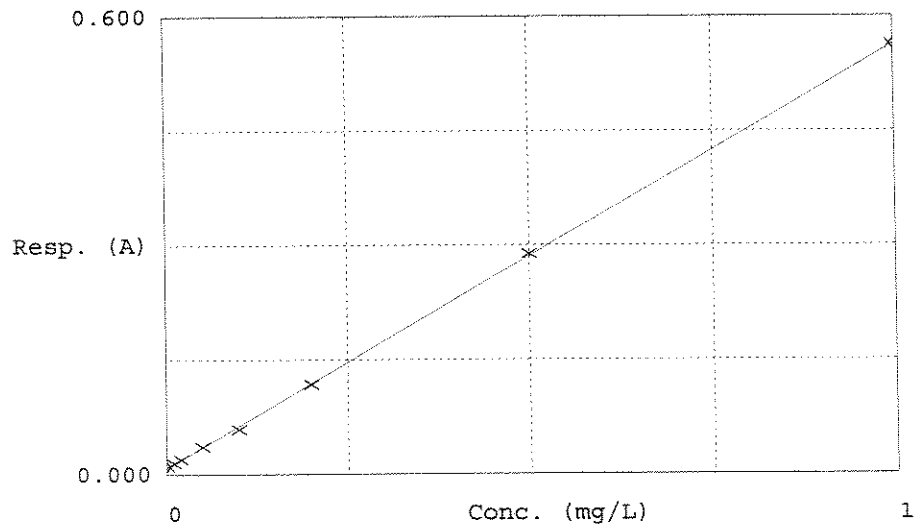
Test      NO2 353.2

Accepted                      3/27/2009      15:43

Factor                      1.80064  
 Bias                        0.00813

Coeff. of det.              0.999863

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors
1	NO2- 0.0	0.00989	0.00317	0.00000	
2	NO2- 0.01	0.01486	0.01212	0.01000	
3	NO2- 0.02	0.01972	0.02087	0.02000	
4	NO2- 0.05	0.03648	0.05106	0.05000	
5	NO2- 0.10	0.05901	0.09161	0.10000	
6	NO2- 0.20	0.11781	0.19750	0.20000	
7	NO2- 0.5	0.28850	0.50485	0.50000	
8	NO2- 1.00	0.56283	0.99882	1.00000	
9	1 ICV-NO2 (contr	0.53680	0.95194	0.90000	
10	2 ICB-NO2 (contr	0.00979	0.00298	0.00000	

Columbia Analytical Services  
Rochester, NY 14607  
Analyst: GNITA  
Pipette: E/

3/27/2009 16:11

Test: NO2 353.2

Sample Id	Result	Dil. 1 +	Response	Errors
1 ICV-NO2	0.9519	0.0	0.537	
2 ICB-NO2	0.0030	0.0	0.010	
3 CCV-NO2	0.9501	0.0	0.536	
4 CCB-NO2	0.0045	0.0	0.011	
LCS	0.2543	0.0	0.149	
2090 1679-001 032609-001	0.0018	0.0	0.009	
3 CCV-NO2	0.9607	0.0	0.542	
4 CCB-NO2	0.0053	0.0	0.011	
12090 1679-001 001 DUP	0.0020	0.0	0.009	
↓ 001 SPK	0.2564	0.0	0.151	
1679-002 032609-002	0.0065	0.0	0.012	
1679-003 032609-003	-0.0044	0.0	0.006	
1679-004 032609-004	-0.0052	0.0	0.005	
1679-005 032609-005	0.0023	0.0	0.009	
1679-006 032609-006	-0.0060	0.0	0.005	
1679-007 03260-007	-0.0044	0.0	0.006	
1679-008 032609-008	0.0030	0.0	0.010	
3 CCV-NO2	0.9344	0.0	0.527	
4 CCB-NO2	0.0046	0.0	0.011	
N	11			
Mean	0.0460			
SD	0.10357			
CV%	224.95			



Columbia Analytical Services  
Rochester, NY 14607  
Analyst: *GN*  
Pipette: *E1*

Date : 3/27/2009  
Time : 16:12  
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Test                                      NO2 353.2  
Unit                                      mg/L

Sample ID:	Resp.	Result	Man.dilut	Dilut	Date and Time
1 ICV-NO2	0.537	0.9519			3/27/2009 15:41
2 ICB-NO2	0.010	0.0030			3/27/2009 15:42
3 CCV-NO2	0.536	0.9501			3/27/2009 15:57
4 CCB-NO2	0.011	0.0045			3/27/2009 15:57
LCS	0.149	0.2543			3/27/2009 15:57
032609-001	0.009	0.0018			3/27/2009 16:00
3 CCV-NO2	0.542	0.9607			3/27/2009 16:00
4 CCB-NO2	0.011	0.0053			3/27/2009 16:00
001 DUP	0.009	0.0020			3/27/2009 16:02
001 SPK	0.151	0.2564			3/27/2009 16:02
032609-002	0.012	0.0065			3/27/2009 16:02
032609-003	0.006	-0.0044			3/27/2009 16:05
032609-004	0.005	-0.0052			3/27/2009 16:05
032609-005	0.009	0.0023			3/27/2009 16:05
032609-006	0.005	-0.0060			3/27/2009 16:07
03260-007	0.006	-0.0044			3/27/2009 16:07
032609-008	0.010	0.0030			3/27/2009 16:07
3 CCV-NO2	0.527	0.9344			3/27/2009 16:09
4 CCB-NO2	0.011	0.0046			3/27/2009 16:10

Columbia Analytical Services  
 1 Mustard St., Rochester NY 14609

General Chemistry Analytical Run Cover Sheet

Analyst: GNITA

Date: 3/27/09

Analysis: Nitrite

Instrument: Aquakem

Quality Control:

	Same as Log#, Date,	Stocks Prep. Log#, Date,	Stock Sol (mLs)	Stock Sol (mg/L)	Final Vol (mLs)	True Value (mg/L)
a) Standards Prep.:	WC65144E, 3/5/03	WC72002F, 1/26/09				
b) ICV Preparation:	WC65144F, 3/5/03	WC72007G, 1/26/09	0.5	18	10	0.90
c) LCS Preparation:	WC65144G, 3/5/03	WC72002F, 1/26/09	0.25	10	10	0.25
d) Matrix Spike Prep.:	WC65144G, 3/5/03	WC72002F, 1/26/09	0.25	10	10	0.25

Instrument log filled in?  (Y)  (N)

Packages: Copy and attach Standards Preparation

Comments:

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Production:

	Start Time	End Time	Total (minutes)
Preparation Time :			
Analytical Time:			
Finish Time:			

# of Samples (including Mtx QC): \_\_\_\_\_

Repeats due to Sample: \_\_\_\_\_

Repeats due to Error: \_\_\_\_\_

p:\greg\forms\cover.no2

**REFERENCE (ICV / CCV) STOCK PREP**  
 (Fluoride and Bromide are purchased 1000ppm standards)

Reviewed & Approved

By: CK SJ / CK JB

Date: 10/16/06 <sup>5/1/07</sup> / 9/10/07 <sup>7/1/08</sup>

5/1/2008

**Chloride 650ppm Stock:** 1.070g NaCl crystals dried for 2 hrs at 104 . Dissolve in approx. 800mls DI in 1 Liter volumetric flask. Bring to volume with DI water. Store in amber jar @ room temp. for 1 year.

ID Letter	NaCl Source	Analyst	Date Prepared	Date Expires	Final Cl Reference Stock ID
A					
B					
C					
D					
E					

**Nitrite 180ppm Stock:** 1.09g KNO2 previously dried for 2 hrs at 104 . Dissolve in approx. 800mls DI in 1 Liter volumetric flask. Bring to volume with DI water. Store in amber jar @ 4 for 1 year.

ID Letter	KNO2 Source	Analyst	Date Prepared	Date Expires	Final NO2 Reference Stock ID
F	WC76097D	NM	1/31/08	1/31/09	WC72007F (3902)
G	WC85094D	CK	1/24/09	1/24/10	WC72007G (7740)
H					
I					
J					

**Nitrate 180ppm Stock:** 1.30g KNO3 crystals dried for 2 hrs at 104 . Dissolve in approx. 800mls DI in 1 Liter volumetric flask. Bring to volume with DI water. Transfer to amber jar and add 1.0ml Chloroform. Store in amber jar @ room temp. for 6 months.

ID Letter	KNO3 Source	Chloroform Source ID	Analyst	Date Prepared	Date Expires	Final NO3 Reference Stock ID
K	WC76115G	WC76170J	FJ	10/5/06	4/5/07	WC72007K
L	WC76115G	WC76234A	FJ	3/26/07	9/26/07	WC72007L
M	WC76115G	WC76234A	NM	9/21/07	3/21/08	WC72007M
N	WC76115G	WC76234A	CK	3/25/08	9/25/08	WC72007N
O						

**OPO4 180ppm Stock:** 0.7909g granular KH2PO4 dried for 2 hrs at 104 . Dissolve in approx. 800mls DI in 1 Liter volumetric flask. Bring to volume with DI water. Store in amber jar @ 4 for 1 year.

ID Letter	KH2PO4 Source	Analyst	Date Prepared	Date Expires	Final OPO4/TPO4 Reference Stock ID
P	WC65196E	TC	2/23/07	11/31/07	WC72007P
Q	WC85054G	AB	11/30/07	11/30/08	WC72007Q
R	WC85085E	RP	2/14/08	2/14/09	WC72007R
S	WC85054G	CK	1/24/09	1/24/10	WC72007S (7738)
T					

**Sulfate 3200ppm Stock:** 5.80g K2SO4 dried for 2 hrs at 104 . Dissolve in approx. 800mls DI in 1 Liter volumetric flask. Bring to volume with DI water. Store in amber jar @ 4 for 1 year.

ID Letter	K2SO4 Source	Analyst	Date Prepared	Date Expires	Final SO4 Reference Stock ID
U					
V					
W					
X					
Y					

**STANDARD STOCK PREP**

(Fluoride and Bromide are purchased 1000ppm standards)

Reviewed & Approved

By: CK SJ / CK SJ 11/7/05

Date: 10/16/06 5/1/07 / 9/10/07 5/1/2008

**Chloride 1000ppm Stock:** 1.648g NaCl crystals dried for 2 hrs at 104 . Dissolve in approx. 800mls DI in 1 Liter volumetric flask. Bring to volume with DI water. Store in amber jar @ room temp. for 1 year.

ID Letter	NaCl Source	Analyst	Date Prepared	Date Expires	Final Cl 1000ppm Stock ID
A	WC76259E	CK	1/26/09	1/26/10	WC72002A CK 1/26/09
B					
C					
D					
E					

**Nitrite 1000ppm Stock:** 6.07g KNO2 previously dried for 2 hrs at 104 . Dissolve in approx. 800mls DI in 1 Liter volumetric flask. Bring to volume with DI water. Store in amber jar @ 4 for 1 year.

ID Letter	KNO2 Source	Analyst	Date Prepared	Date Expires	Final NO2 1000ppm Stock ID
F	WC76097D	CK	1/26/09	1/26/10	WC72002F (7741)
G					
H					
I					
J					

**Nitrate 1000ppm Stock:** 7.22g KNO3 crystals dried for 2 hrs at 104 . Dissolve in approx. 800mls DI in 1 Liter volumetric flask. Bring to volume with DI water. Transfer to amber jar and add 1.0ml Chloroform. Store in amber jar @ room temp. for 6 months.

ID Letter	KNO3 Source	Chloroform Source ID	Analyst	Date Prepared	Date Expires	Final NO3 1000ppm Stock ID
K	WC76114C	WC76170J	FJ	10/5/06	4/5/07	WC72002K
L	WC76114C	WC76234A	FJ	3/26/07	9/26/07	WC72002L
M	WC76114C	WC76234A	NM	9/21/07	3/21/08	WC72002M
N	WC76114C	WC76234A	CMW	3/25/08	9/25/08	WC72002N
O						

**OPO4 / TPO4 1000ppm Stock:** 4.394g KH2PO4 dried for 2 hrs at 104 . Dissolve in approx. 800mls DI in 1 Liter volumetric flask. Bring to volume with DI water. Store in amber jar @ 4 for 1 year.

ID Letter	KH2PO4 Source	Analyst	Date Prepared	Date Expires	Final OPO4/TPO4 1000ppm Stock ID
P	WC65085E	CK	1/26/09	1/26/10	WC72002P (7742)
Q					
R					
S					
T					

**Sulfate 1000ppm Stock:** 1.479g Na2SO4 dried overnight at 104 . Dissolve in approx. 800mls DI in 1 Liter volumetric flask. Bring to volume with DI water. Store in amber jar @ 4 for 1 year.

ID Letter	Na2SO4 Source	Analyst	Date Prepared	Date Expires	Final SO4 1000ppm Stock ID
U					
V					
W					
X					
Y					

3/5/03 NM (A) 4-AAP - Phenols  
 Same as W65126H. Prepare fresh each run.

3/5/03 DMG (B) NH<sub>4</sub>OH Buffer (TOTN + NO<sub>2</sub>)  
 To a tared 1L amber jar add:  
 • 778.5g DI  
 • 113.4g HCl (W65093J, EIN Lot # 42167)  
 • 76.5g NH<sub>4</sub>Cl (W55309B, EIN Lot # K28141705, 033)  
 • 0.90g EDTA (W65079D, EIN Lot # 42081224)  
 Stir until dissolved. Cool. Adjust pH to 8.5 w/conc. HCl or NaOH. Store @ RT. Exp. 1 year, 3/5/04.

(C) Sulfanilamide Color Reagent (TOTN) + (NO<sub>2</sub>)  
 To a tared 1L amber jar add:  
 • 788g DI  
 • 153g H<sub>3</sub>PO<sub>4</sub> (W65627F, EIN Lot # 40341226)  
 • 0.90g NED (W55231B, Baker Lot # T03600)  
 • 36g Sulfanilamide (W6497C, Baker Lot # V09H38)  
 Stir until dissolved. Store @ RT. Exp. 1 month, 4/5/03

3/5/03 DMG Nitrite (NO<sub>2</sub>) (Lachat: P&L = 0.010 mg/L):

(D) 10 ppm Working Stock: do (2) two 1/10 serial dilutions of 1000 ppm STD Stock (W65135A)

(E) Standards

STD.	Conc (mg/L)	mils 10ppm (W65144D)	mils DI
A	1.000	1.00	9.00
B	0.5000	0.50	9.50
C	0.200	0.20	9.80
D	0.100	1/10 dil'n of STD A.) 1.000	
E	0.050	1/10 dil'n of STD B.) 0.500	
F	0.020	1/10 dil'n of STD C.) 0.200	
G	0.010	1/10 dil'n of STD D.) 0.100	
H	0.000	10 mls DI	

Reviewed & Approved

By: [Signature]  
 Date: 3/30/03

(F) TCV/CCV (TV = 0.900 mg/L)

Add 0.50 mls 18.0 ppm Reference Stock (1) one 1/10 dilution of 180 ppm Reference Stock (W65135B) to 9.5 mls DI.

(G) LES/Matrix Spike (TV = 0.250 mg/L)

Add 0.25 mls 10 ppm working stock (W65144D) to 10 mls DI or sample.

3/5/03 DMG (A) Nitrate  
 (A) 10 ppm dilutions of make fres

(B) Standards

Std	Conc
A	2.0
B	1.01
C	0.50
D	0.201
E	0.100
F	0.050
G	0.020
H	0.010
I	0.000

(C) Reference  
 make two NO<sub>3</sub> Refs.

(D) LES/MA  
 Add 0.05 dilution on to 10 mls

(E) Column  
 1.00 ppm  
 1.00 ppm

Revi  
 Bu: -  
 Date

# Analytical Results Summary

Instrument Name: R-FIA-01      Analyst: NMEAD      Analysis Lot: 149260      Method/Testcode: 351.2/TKN

Lab Code	Target Analytes	QC Type	Parent Sample	Matrix	Sample Amt	Final Result	Dil	POL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ0902311-01	Nitrogen, Total Kjeldahl (TKN)	MB		Water	20 mL	0.20 U ✓	1	0.20			4/8/09 10:48:04	N	II
RQ0902311-02	Nitrogen, Total Kjeldahl (TKN)	LCS		Water	20 mL	2.28 ✓	1	0.20	91		4/8/09 10:53:02	N	II
R0901677-001	Nitrogen, Total Kjeldahl (TKN)	N/A		Water	20 mL	1.87 ✓	1	0.20			4/8/09 11:31:43	N	II
R0901679-001	Nitrogen, Total Kjeldahl (TKN)	N/A		Water	20 mL	0.26 ✓	1	0.20			4/8/09 11:32:26	Y	IV
RQ0902311-03	Nitrogen, Total Kjeldahl (TKN)	DUP	R0901679-001	Water	20 mL	0.24 ✓	1	0.20	99	7	4/8/09 11:33:10	N	IV
RQ0902311-04	Nitrogen, Total Kjeldahl (TKN)	MS	R0901679-001	Water	20 mL	2.75 ✓	1	0.20			4/8/09 11:33:53	N	IV
R0901679-002	Nitrogen, Total Kjeldahl (TKN)	N/A		Water	20 mL	0.68 ✓	1	0.20			4/8/09 11:34:37	N	IV
R0901679-003	Nitrogen, Total Kjeldahl (TKN)	N/A		Water	20 mL	0.75 ✓	1	0.20			4/8/09 11:35:19	N	IV

00421

# Analytical Results Summary

Instrument Name: R-FIA-01      Analyst: NMEAD      Analysis Lot: 149261      Method/Testcode: 351.2/TKN

Lab Code	Target Analytes	QC Type	Parent Sample	Matrix	Sample Amt	Final Result	Dil	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ0902312-01	Nitrogen, Total Kjeldahl (TKN)	MB		Water	20 mL	0.16 J ✓	1	0.20			4/8/09 10:48:47	N	IV
RQ0902312-02	Nitrogen, Total Kjeldahl (TKN)	LCS		Water	20 mL	2.70 ✓	1	0.20	108		4/8/09 13:22:53	N	IV
R0901679-004	Nitrogen, Total Kjeldahl (TKN)	N/A		Water	20 mL	0.91 ✓	1	0.20			4/8/09 11:36:02	N	IV
R0901679-005	Nitrogen, Total Kjeldahl (TKN)	N/A		Water	20 mL	0.59 ✓	1	0.20			4/8/09 11:38:10	N	IV
R0901679-006	Nitrogen, Total Kjeldahl (TKN)	N/A		Water	20 mL	1.62 ✓	1	0.20			4/8/09 11:38:54	N	IV
R0901679-007	Nitrogen, Total Kjeldahl (TKN)	N/A		Water	20 mL	3.54 ✓	1	0.20			4/8/09 11:39:39	N	IV
R0901679-008	Nitrogen, Total Kjeldahl (TKN)	N/A		Water	20 mL	0.46 ✓	1	0.20			4/8/09 11:40:24	N	IV
RQ0902312-03	Nitrogen, Total Kjeldahl (TKN)	DUP	R0901679-008	Water	20 mL	0.46 ✓	1	0.20	96	1	4/8/09 11:41:07	N	IV
RQ0902312-04	Nitrogen, Total Kjeldahl (TKN)	MS	R0901679-008	Water	20 mL	2.86 ✓	1	0.20			4/8/09 11:41:51	N	IV
R0901809-001	Nitrogen, Total Kjeldahl (TKN)	N/A		Water	0.2000 mL	1540 ✓	2	40			4/8/09 11:42:34	N	II
R0901754-003	Nitrogen, Total Kjeldahl (TKN)	N/A		Water	20 mL	0.73 ✓	1	0.20			4/8/09 11:43:18	N	II
R0901717-001	Nitrogen, Total Kjeldahl (TKN)	N/A		Water	5.0000 mL	1570 ✓	100	80			4/8/09 12:08:48	N	I
R0901717-002	Nitrogen, Total Kjeldahl (TKN)	N/A		Water	5.0000 mL	577 ✓	20	16			4/8/09 12:09:31	N	I
R0901722-001	Nitrogen, Total Kjeldahl (TKN)	N/A		Water	5.0000 mL	901 ✓	50	40			4/8/09 12:10:15	N	I
R0901722-019	Nitrogen, Total Kjeldahl (TKN)	N/A		Water	5.0000 mL	93.7 ✓	4	3.2			4/8/09 12:10:57	N	I
R0901801-001	Nitrogen, Total Kjeldahl (TKN)	N/A		Water	20 mL	0.58 ✓	1	0.20			4/8/09 11:48:20	Y	II
RQ0902312-05	Nitrogen, Total Kjeldahl (TKN)	DUP	R0901801-001	Water	20 mL	0.59 ✓	1	0.20			4/8/09 11:49:03	N	II
RQ0902312-06	Nitrogen, Total Kjeldahl (TKN)	MS	R0901801-001	Water	20 mL	2.93 ✓	1	0.20	94	1	4/8/09 11:49:47	N	II
R0901801-002	Nitrogen, Total Kjeldahl (TKN)	N/A		Water	20 mL	0.77 ✓	1	0.20			4/8/09 11:50:32	N	II
R0901801-003	Nitrogen, Total Kjeldahl (TKN)	N/A		Water	20 mL	0.34 ✓	1	0.20			4/8/09 11:51:17	N	II
R0901801-004	Nitrogen, Total Kjeldahl (TKN)	N/A		Water	20 mL	1.00 ✓	1	0.20			4/8/09 11:52:01	N	II
R0901801-005	Nitrogen, Total Kjeldahl (TKN)	N/A		Water	20 mL	0.27 ✓	1	0.20			4/8/09 11:52:45	N	II
R0901801-006	Nitrogen, Total Kjeldahl (TKN)	N/A		Water	20 mL	0.25 ✓	1	0.20			4/8/09 11:53:29	N	II
R0901801-007	Nitrogen, Total Kjeldahl (TKN)	N/A		Water	20 mL	0.28 ✓	1	0.20			4/8/09 11:55:39	N	II
R0901801-008	Nitrogen, Total Kjeldahl (TKN)	N/A		Water	20 mL	0.55 ✓	1	0.20			4/8/09 11:56:23	N	II
R0901801-009	Nitrogen, Total Kjeldahl (TKN)	N/A		Water	20 mL	0.32 ✓	1	0.20			4/8/09 11:57:06	N	II

# Preparation Information Benchsheet

Regular  
Low level  
4/6/09  
MB # 1

Prep Run#: 85171  
GenChem/SROBINSON  
Prep WorkFlow: Gen Dist TKN  
Prep Method: Method  
Status: Prepped  
Prep Date/Time: 4/6/09 01:57 PM  
RUN# 149260

#	Lab Code	Client ID	B#	Amt. Ext.	Method / Test	pH	AE	BN	Final Vol	Sample Desc. (Initial/Final)	Spike Amt./Inv. ID	Comments
1	RQ0902311-01	MB		20mL	351.2/TKN				20.00mL		0.0500 mL/7477	
2	RQ0902311-02	LCS		20mL	351.2/TKN				20.00mL			
3	R0901677-001	SGC-001	.01	20mL	351.2/TKN				20.00mL			
4	R0901679-001	WG-5513-032609-001	.04	20mL	351.2/TKN				20.00mL			
5	RQ0902311-03	R0901679-001 DUP	.04	20mL	351.2/TKN				20.00mL			
6	RQ0902311-04	R0901679-001 MS	.04	20mL	351.2/TKN				20.00mL		0.0500 mL/7477	
7	R0901679-002	WG-5513-032609-002	.04	20mL	351.2/TKN				20.00mL			
8	R0901679-003	WG-5513-032609-003	.04	20mL	351.2/TKN				20.00mL			

### Spiking Solutions

Name: Ammonia 1000 ppm N (1.0 mg/mL N) NI Inventory ID 7477 Logbook Ref: WC85257E Expires On: 01/19/2010  
Sulfuric Acid, Omnitrace H2SO4 WC85240C (7917)

### Preparation Materials

Copper (II) (Cupric) Sulfate WC85271E (8443)  
Anhydrous CuSO4  
Potassium Sulfate Reagent Grade WC852831 (8968)  
K2SO4

### Preparation Steps

Step: Distillation  
Started: 4/6/09 13:57  
Finished: 4/6/09 13:59  
By: SROBINSON

Comments:

Reviewed By: \_\_\_\_\_

Date: \_\_\_\_\_

Spike Witness: GNITAJOUPLI

Date: \_\_\_\_\_

Chain of Custody

Relinquished By: \_\_\_\_\_

Date: \_\_\_\_\_

Received By: \_\_\_\_\_

Date: \_\_\_\_\_

Extracts Examined

Yes No



# Preparation Information Benchsheet

Regular Level  
MB # 2

Prep Run#: 85172  
Team: GenChem/SROBINSON

Prep WorkFlow: Gen Dist TKN  
Prep Method: Method

Status: Prepped  
Prep Date/Time: 4/6/09 02:00 PM

Run # 149261

#	Lab Code	Client ID	B#	Amt. Ext.	Method / Test	pH	AE	BN	Final Vol	Sample Desc. (Initial/Final)	Spike Amt./Inv. ID	Comments
1	RO902312-01	MB		20mL	351.2/TKN				20.00mL		0.0500 mL/7477	
2	RO902312-02	LCS		20mL	351.2/TKN				20.00mL			
3	RO901679-004	WG-5513-032609-004	04	20mL	351.2/TKN				20.00mL			
4	RO901679-005	WG-5513-032609-005	04	20mL	351.2/TKN				20.00mL			
5	RO901679-006	WG-5513-032609-006	04	20mL	351.2/TKN				20.00mL			
6	RO901679-007	WG-5513-032609-007	04	20mL	351.2/TKN				20.00mL			
7	RO901679-008	WG-5513-032609-008	04	20mL	351.2/TKN				20.00mL			
8	RO902312-03	RO901679-008 DUP	04	20mL	351.2/TKN				20.00mL			
9	RO902312-04	RO901679-008 MS	04	20mL	351.2/TKN				20.00mL		0.0500 mL/7477	
10	RO901809-001	SMIPS001	02	0.2000mL	351.2/TKN				20.00mL			
11	RO901754-003	504213	01	20mL	351.2/TKN				20.00mL			
12	RO901717-001	SW	01	5mL	351.2/TKN				20.00mL			
13	RO901717-002	ATI	01	5mL	351.2/TKN				20.00mL			
14	RO901722-001	Anoxic Anoxic Feed	01	5mL	351.2/TKN				20.00mL			
15	RO901722-019	Aerobic 7 hr	01	5mL	351.2/TKN				20.00mL			
16	RO901801-001	SM-0013-SB	03	20mL	351.2/TKN				20.00mL			
17	RO902312-05	RO901801-001 DUP	03	20mL	351.2/TKN				20.00mL			
18	RO902312-06	RO901801-001 MS	03	20mL	351.2/TKN				20.00mL		0.0500 mL/7477	
19	RO901801-002	SM00013-UGL	03	20mL	351.2/TKN				20.00mL			
20	RO901801-003	SM-0016-SB	03	20mL	351.2/TKN				20.00mL			
21	RO901801-004	SM-0015-UGL	03	20mL	351.2/TKN				20.00mL			
22	RO901801-005	SM-0003-SB	03	20mL	351.2/TKN				20.00mL			
23	RO901801-006	SM-0005-UT	03	20mL	351.2/TKN				20.00mL			
24	RO901801-007	SM-0005-SB	03	20mL	351.2/TKN				20.00mL			
25	RO901801-008	SM-0023-UGL	03	20mL	351.2/TKN				20.00mL			
26	RO901801-009	SM-0001-SB	03	20mL	351.2/TKN				20.00mL			

### Spiking Solutions

Name: Ammonia 1000 ppm N (1.0 mg/mL N) NI Inventory ID 7477

Logbook Ref: WC85257E

Expires On: 01/19/2010

### Preparation Materials

Copper (II) Cupric Sulfate WC85271E (8443)  
 Anhydrous CuSO4  
 Potassium Sulfate Reagent Grade WC852831 (8968)  
 K2SO4

Water Deionized H2O Millipore System (2263)

Sulfuric Acid, Omnitrace H2SO4 WC85240C (7917)

00424

# Preparation Information Benchsheet

Status: Prepped  
Prep Date/Time: 4/6/09 02:00 PM

Prep WorkFlow: Gen Dist TKN  
Prep Method: Method

Prep Run#: 85172  
Team: GenChem/SROBINSON

## Preparation Steps

Step: Distillation  
Started: 4/6/09 14:00  
Finished: 4/6/09 14:03  
By: SROBINSON

Comments: \_\_\_\_\_

Date: \_\_\_\_\_

Spike Witness: RPAWL

Date: \_\_\_\_\_

Chain of Custody

Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_  
Received By: \_\_\_\_\_ Date: \_\_\_\_\_  
Extracts Examined  
Yes No

85172

Columbia Analytical Services  
 1 Mustard Street  
 Rochester, NY 14609

Analyte: TKN Digest (Low Level / Regular Level)

Analyst: SBR

Date: 4/6/09

Pipet ID: Ali

Spk Witness: GN

#	Submission #	Order #	Sample Amt (mLs/g)	Dilution	Spk amount	Comments
1		PB 1 LL	20	1		
2		LCS 1 INORG LL			+0.025mL	1000ppm
3		LCS 1 ORG LL			+0.050mL	500ppm
4		R0901719-001				
5		R0901724-001				
6		R0901724-005				
7		1724-005 DUP				
8		1724-005 SPK			+0.025mL	1000ppm
9		R0901724-009				
10		R0901724-013				
11		R0901744-001				
12		R0901744-005				
13		R0901744-009				
14		R0901744-013				
15		R0901773-001				
16		R0901812-001				
17		R0901728-001				
18		R0901728-002				
19		R0901728-003				
20		1728-003 DUP				
21		1728-003 SPK			+0.025mL	1000ppm
22		R0901728-004				
23		R0901728-005				
24		R0901728-006				
25		R0901728-007				
26		R0901728-008				
27		R0901728-009				
28		PB 2 LL				
29		LCS 2 INORG LL			+0.025mL	1000ppm
30		LCS 2 ORG LL			+0.050mL	500ppm
31		R0901793-001				
32		R0901793-003				
33	R0901793-005	R0901730-005				
34	R0901793-007	R0901730-007				
35	R0901793-009	R0901730-009				
36		R0901793-011				
37		R0901793-013				
38		R0901793-015				
39		R0901793-017				
40		1793-017 DUP				
41		1793-017 SPK			+0.025mL	1000ppm
42		PB 1 RL				
43		LCS 1 INORG RL			+0.050mL	1000ppm
44		LCS 1 ORG RL			+0.100mL	500ppm
45		R0901677-001				
46		R0901679-001				
47		1679-001 DUP				
48		1679-001 SPK			+0.050mL	1000ppm
49		R0901679-002				
50		R0901679-003				

Columbia Analytical Services  
 1 Mustard Street  
 Rochester, NY 14609

Analyte: TKN Digest Low Level / Regular Level  
 Analyst: SBR Date: 4/6/09  
 Pipet ID: Lucy, Ali Spk Witness: RP

# Submission #	Order #	Sample Amt (mLs/g)	Dilution	Spk amount	Comments
1	PB 2 RL	20	1		
2	LCS 2 INORG RL	↓	↓	+0.050 mL	1000 ppm
3	LCS 2 ORG RL	↓	↓	+0.100 mL	500 ppm
4	R0901679-004	↓	↓		
5	R0901679-005	↓	↓		
6	R0901679-006	↓	↓		
7	R0901679-007	↓	↓		
8	R0901679-008	↓	↓		
9	1679-008 DUP	↓	↓		
10	1679-008 SPK	↓	↓	+0.050 mL	1000 ppm
11	R0901809-001	0.20	100		
12	R0901754-003	20	1		
13	R0901717-001	5	4		
14	R0901717-002	↓	↓		
15	R0901722-001	↓	↓		
16	R0901722-019	↓	↓		
17	R0901801-001	20	1		
18	1801-001 DUP	↓	↓		
19	1801-001 SPK	↓	↓	+0.050 mL	1000 ppm
20	R0901801-002	↓	↓		
21	R0901801-003	↓	↓		
22	R0901801-004	↓	↓		
23	R0901801-005	↓	↓		
24	R0901801-006	↓	↓		
25	R0901801-007	↓	↓		
26	R0901801-008	↓	↓		
27	R0901801-009	↓	↓		
28	PB 3 RL				
29	LCS 3 INORG RL	↓	↓	+0.050 mL	1000 ppm
30	LCS 3 ORG RL	↓	↓	+0.100 mL	500 ppm
31	R0901801-010	↓	↓		
32	R0901801-011	↓	↓		
33	R0901801-012	↓	↓		
34	R0901801-013	↓	↓		
35	R0901801-014	↓	↓		
36	R0901801-015	↓	↓		
37	R0901801-016	↓	↓		
38	R0901801-017	↓	↓		
39	1801-017 DUP	↓	↓		
40	1801-017 SPK	↓	↓	+0.050 mL	1000 ppm
41					
42					
43					
44					
45					
46					
47					
48					
49					
50					

SBR 4/6/09

Creator: NMEAD  
 Creation Date: Apr 8, 2009 9:50:17  
 Last Modified: Apr 8, 2009 9:50:17  
 Description: QC 8000 351.2 TKN - RUN LOG - 0904080A

Cup #	Sample ID	Manual Dilution	Sample Type	
1	Standard A - 10.000	1.0000	CalStd	
2	Standard B - 5.000	1.0000	CalStd	
3	Standard C - 2.000	1.0000	CalStd	
4	Standard D - 1.000	1.0000	CalStd	
5	Standard E - 0.500	1.0000	CalStd	
6	Standard F - 0.200	1.0000	CalStd	
7	Standard G - 0.100	1.0000	CalStd	
8	Standard H - 0.050	1.0000	CalStd	
9	Standard I - 0.000	1.0000	CalStd	
1	ICV TV = 8.00	1.0000	Unknown	
2	ICB	1.0000	Unknown	
3	PB-1 LL	1.0000	Unknown	
4	PB-2 LL	1.0000	Unknown	
5	PB-1 RL	1.0000	Unknown	
6	PB-2 RL	1.0000	Unknown	
7	PB-3 RL	1.0000	Unknown	
8	LCS-1 LL INORG	1.0000	Unknown	
9	LCS-1 LL ORG	1.0000	Unknown	
10	LCS-2 LL INORG	1.0000	Unknown	
11	LCS-2 LL ORG	1.0000	Unknown	
12	LCS-1 RL INORG	1.0000	Unknown	
13	CCV	1.0000	Unknown	
14	CCB	1.0000	Unknown	
15	LCS-1 RL ORG	1.0000	Unknown	
16	LCS-2 RL INORG	1.0000	Unknown	+ high-ipte# 3-next tray
17	LCS-2 RL ORG	1.0000	Unknown	
18	LCS-3 RL INORG	1.0000	Unknown	
19	LCS-3 RL ORG	1.0000	Unknown	
20	CRDL-0.200	1.0000	Unknown	
21	CRDL-0.100	1.0000	Unknown	
22	CRDL-0.050	1.0000	Unknown	
23	R0901719-001	1.0000	Unknown	
24	R0901724-001	1.0000	Unknown	
25	CCV	1.0000	Unknown	
26	CCB	1.0000	Unknown	
27	R0901724-005	1.0000	Unknown	
28	1724-005 DUP	1.0000	Unknown	
29	1724-005 SPK	1.0000	Unknown	
30	R0901724-009	1.0000	Unknown	
31	R0901724-013	1.0000	Unknown	

Cup #	Sample ID	Manual Dilution	Sample Type	
32	R0901744-001	1.0000	Unknown	
33	R0901744-005	1.0000	Unknown	
34	R0901744-009	1.0000	Unknown	
35	R0901744-013	1.0000	Unknown	
36	R0901773-001	1.0000	Unknown	
37	CCV	1.0000	Unknown	
38	CCB	1.0000	Unknown	
39	R0901812-001	1.0000	Unknown	- Bad integration - rptc#114
40	R0901728-001	1.0000	Unknown	- Bad integration - rptc#115
41	R0901728-002	1.0000	Unknown	- Bad integration - rptc#116
42	R0901728-003	1.0000	Unknown	
43	1728-003 DUP	1.0000	Unknown	
44	1728-003 SPK	1.0000	Unknown	
45	R0901728-004	1.0000	Unknown	
46	R0901728-005	1.0000	Unknown	
47	R0901728-006	1.0000	Unknown	
48	R0901728-007	1.0000	Unknown	
49	CCV	1.0000	Unknown	
50	CCB	1.0000	Unknown	
51	R0901728-008	1.0000	Unknown	
52	R0901728-009	1.0000	Unknown	
53	R0901793-001	1.0000	Unknown	
54	R0901793-003	1.0000	Unknown	
55	R0901793-005	1.0000	Unknown	
56	R0901793-007	1.0000	Unknown	
57	R0901793-009	1.0000	Unknown	
58	R0901793-011	1.0000	Unknown	
59	R0901793-013	1.0000	Unknown	
60	R0901793-015	1.0000	Unknown	
61	CCV	1.0000	Unknown	
62	CCB	1.0000	Unknown	
63	R0901793-017	1.0000	Unknown	
64	1793-017 DUP	1.0000	Unknown	
65	1793-017 SPK	1.0000	Unknown	
66	R0901677-001	1.0000	Unknown	
67	R0901679-001	1.0000	Unknown	
68	1679-001 DUP	1.0000	Unknown	
69	1679-001 SPK	1.0000	Unknown	
70	R0901679-002	1.0000	Unknown	
71	R0901679-003	1.0000	Unknown	
72	R0901679-004	1.0000	Unknown	
73	CCV	1.0000	Unknown	
74	CCB	1.0000	Unknown	
75	R0901679-005	1.0000	Unknown	
76	R0901679-006	1.0000	Unknown	

Cup #	Sample ID	Manual Dilution	Sample Type	
77	R0901679-007	1.0000	Unknown	
78	R0901679-008	1.0000	Unknown	
79	1679-008 DUP	1.0000	Unknown	
80	1679-008 SPK	1.0000	Unknown	
81	R0901809-001	2.0000	Unknown	+1/100 dil. @ digest
82	R0901754-003	1.0000	Unknown	
83	R0901717-001	1.0000	Unknown	- rpt @ #117 - 1/100
84	R0901717-002	1.0000	Unknown	- rpt @ #118 - 1/20
85	CCV	1.0000	Unknown	
86	CCB	1.0000	Unknown	
87	R0901722-001	1.0000	Unknown	- rpt @ #119 - 1/50
88	R0901722-019	1.0000	Unknown	- rpt @ #120 - 1/4
89	R0901801-001	1.0000	Unknown	
90	1801-001 DUP	1.0000	Unknown	
91	1801-001 SPK	1.0000	Unknown	
92	R0901801-002	1.0000	Unknown	
93	R0901801-003	1.0000	Unknown	
94	R0901801-004	1.0000	Unknown	
95	R0901801-005	1.0000	Unknown	
96	R0901801-006	1.0000	Unknown	
97	CCV	1.0000	Unknown	
98	CCB	1.0000	Unknown	
99	R0901801-007	1.0000	Unknown	
100	R0901801-008	1.0000	Unknown	
101	R0901801-009	1.0000	Unknown	
102	R0901801-010	1.0000	Unknown	
103	R0901801-011	1.0000	Unknown	
104	R0901801-012	1.0000	Unknown	
105	R0901801-013	1.0000	Unknown	
106	R0901801-014	1.0000	Unknown	
107	R0901801-015	1.0000	Unknown	
108	R0901801-016	1.0000	Unknown	
109	CCV	1.0000	Unknown	
110	CCB	1.0000	Unknown	
111	R0901801-017	1.0000	Unknown	
112	1801-017 DUP	1.0000	Unknown	
113	1801-017 SPK	1.0000	Unknown	
114	R0901812-001 RPT	1.0000	Unknown	
115	R0901728-001 RPT	1.0000	Unknown	
116	R0901728-002 RPT	1.0000	Unknown	
117	R0901717-001 RPT 1/100	100.0000	Unknown	- 1/4 dil. @ digest
118	R0901717-002 RPT 1/20	20.0000	Unknown	- 1/4 dil. @ digest
119	R0901722-001 RPT 1/50	50.0000	Unknown	- 1/4 dil. @ digest
120	R0901722-019 RPT 1/4	4.0000	Unknown	- 1/4 dil. @ digest
121	CCV	1.0000	Unknown	

Cup #	Sample ID	Manual Dilution	Sample Type	
122	CCB	1.0000	Unknown	



**Creator:** NMEAD

**Creation Date:** Apr 8, 2009 13:12:26

**Last Modified:** Apr 8, 2009 13:14:46

**Description:** QC 8000 351.2 TKN - RUN LOG - 090408A2

Cup #	Sample ID	Manual Dilution	Sample Type	
1	CCV	1.0000	Unknown	
2	CCB	1.0000	Unknown	
3	LCS-2 RL INORG TV = 2.50	1.0000	Unknown	
4	CCV	1.0000	Unknown	
5	CCB	1.0000	Unknown	

OPERATOR: NMEAD  
 ACQ. TIME: Apr 8, 2009 10:45:09  
 DATA FILENAME: C:\OMNION\DATA\090408A1.FDT  
 TRAY FILENAME: C:\OMNION\TRAYS\0904080A.TRA

Multi-Channel Table  
 Type: Unknowns  
 Channel Range: 1 to 8 -- Cup Range: 1 to 25

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	QC 8000 351.2 TKN (mg/L)	Man Dil Factor	Auto Dil Factor
1	ICV TV= 8.00	08 Apr 2009	10:45:12	1	8.0041	1.0	1.00
2	ICB	08 Apr 2009	10:45:55	1	0.0039	1.0	1.00
3	PB-1 LL	08 Apr 2009	10:46:39	1	0.0095	1.0	1.00
4	PB-2 LL	08 Apr 2009	10:47:22	1	0.0214	1.0	1.00
5	PB-1 RL	08 Apr 2009	10:48:04	1	0.0231	1.0	1.00
6	PB-2 RL	08 Apr 2009	10:48:47	1	0.1583	1.0	1.00
7	PB-3 RL	08 Apr 2009	10:49:29	1	0.0570	1.0	1.00
8	LCS-1 LL INORG	08 Apr 2009	10:50:12	1	1.1651	1.0	1.00
9	LCS-1 LL ORG	08 Apr 2009	10:50:54	1	1.0088	1.0	1.00
10	LCS-2 LL INORG	08 Apr 2009	10:51:37	1	1.1712	1.0	1.00
11	LCS-2 LL ORG	08 Apr 2009	10:52:20	1	1.0437	1.0	1.00
12	LCS-1 RL INORG	08 Apr 2009	10:53:02	1	2.2785	1.0	1.00
13	CCV	08 Apr 2009	10:53:43	1	8.1237	1.0	1.00
14	CCB	08 Apr 2009	10:54:25	1	0.0006	1.0	1.00
15	LCS-1 RL ORG	08 Apr 2009	10:55:07	1	2.1607	1.0	1.00
16	LCS-2 RL INORG	08 Apr 2009	10:55:50	1	2.7656	1.0	1.00
17	LCS-2 RL ORG	08 Apr 2009	10:56:34	1	2.4090	1.0	1.00
18	LCS-3 RL INORG	08 Apr 2009	10:57:18	1	2.3303	1.0	1.00
19	LCS-3 RL ORG	08 Apr 2009	10:58:01	1	2.2481	1.0	1.00
20	CRDL-0.200	08 Apr 2009	10:58:45	1	0.2120	1.0	1.00
21	CRDL-0.100	08 Apr 2009	10:59:28	1	0.1207	1.0	1.00
22	CRDL-0.050	08 Apr 2009	11:00:11	1	0.0504	1.0	1.00
23	R0901719-001	08 Apr 2009	11:00:53	1	0.2599	1.0	1.00
24	R0901724-001	08 Apr 2009	11:01:36	1	0.3345	1.0	1.00
25	CCV	08 Apr 2009	11:02:18	1	8.1229	1.0	1.00

*high- rpt @ #3 - next tray  
to confirm*

OPERATOR: NMEAD  
 ACQ. TIME: Apr 8, 2009 10:45:09  
 DATA FILENAME: C:\OMNION\DATA\090408A1.FDT  
 TRAY FILENAME: C:\OMNION\TRAYS\0904080A.TRA

Multi-Channel Table  
 Type: Unknowns  
 Channel Range: 1 to 8 -- Cup Range: 26 to 50

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	QC 8000 351.2 TKN (mg/L)	Man Dil Factor	Auto Dil Factor
26	CCB	08 Apr 2009	11:03:01	1	0.0037	1.0	1.00
27	R0901724-005	08 Apr 2009	11:03:43	1	0.3751	1.0	1.00
28	1724-005 DUP	08 Apr 2009	11:04:26	1	0.3514	1.0	1.00
29	1724-005 SPK	08 Apr 2009	11:05:07	1	1.3137	1.0	1.00
30	R0901724-009	08 Apr 2009	11:05:49	1	0.3015	1.0	1.00
31	R0901724-013	08 Apr 2009	11:06:33	1	0.2651	1.0	1.00
32	R0901744-001	08 Apr 2009	11:07:16	1	0.2214	1.0	1.00
33	R0901744-005	08 Apr 2009	11:08:00	1	0.2732	1.0	1.00
34	R0901744-009	08 Apr 2009	11:08:43	1	0.3842	1.0	1.00
35	R0901744-013	08 Apr 2009	11:09:27	1	0.2275	1.0	1.00
36	R0901773-001	08 Apr 2009	11:10:10	1	0.2078	1.0	1.00
37	CCV	08 Apr 2009	11:10:54	1	8.0825	1.0	1.00
38	CCB	08 Apr 2009	11:11:37	1	0.0223	1.0	1.00
39	R0901812-001	08 Apr 2009	11:12:19	1	0.1933	1.0	1.00
40	R0901728-001	08 Apr 2009	11:13:02	1	0.2283	1.0	1.00
41	R0901728-002	08 Apr 2009	11:13:44	1	0.2160	1.0	1.00
42	R0901728-003	08 Apr 2009	11:14:27	1	0.3645	1.0	1.00
43	1728-003 DUP	08 Apr 2009	11:15:09	1	0.3565	1.0	1.00
44	1728-003 SPK	08 Apr 2009	11:15:52	1	1.5878	1.0	1.00
45	R0901728-004	08 Apr 2009	11:16:33	1	0.4120	1.0	1.00
46	R0901728-005	08 Apr 2009	11:17:17	1	0.2078	1.0	1.00
47	R0901728-006	08 Apr 2009	11:18:01	1	0.2509	1.0	1.00
48	R0901728-007	08 Apr 2009	11:18:44	1	0.3968	1.0	1.00
49	CCV	08 Apr 2009	11:19:28	1	8.0117	1.0	1.00
50	CCB	08 Apr 2009	11:20:11	1	0.0170	1.0	1.00

- Bad integration - rpt@#114  
 - Bad integration - rpt@#115  
 - Bad integration - rpt@#116

OPERATOR: NMEAD  
 ACQ. TIME: Apr 8, 2009 10:45:09  
 DATA FILENAME: C:\OMNION\DATA\090408A1.FDT  
 TRAY FILENAME: C:\OMNION\TRAYS\0904080A.TRA

Multi-Channel Table  
 Type: Unknowns  
 Channel Range: 1 to 8 -- Cup Range: 51 to 75

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	QC 8000 351.2 TKN (mg/L)	Man Dil Factor	Auto Dil Factor
51	R0901728-008	08 Apr 2009	11:20:55	1	0.2641	1.0	1.00
52	R0901728-009	08 Apr 2009	11:21:38	1	0.2574	1.0	1.00
53	R0901793-001	08 Apr 2009	11:22:21	1	0.2138	1.0	1.00
54	R0901793-003	08 Apr 2009	11:23:03	1	0.4797	1.0	1.00
55	R0901793-005	08 Apr 2009	11:23:46	1	0.2569	1.0	1.00
56	R0901793-007	08 Apr 2009	11:24:29	1	0.4129	1.0	1.00
57	R0901793-009	08 Apr 2009	11:25:11	1	0.9356	1.0	1.00
58	R0901793-011	08 Apr 2009	11:25:54	1	1.6944	1.0	1.00
59	R0901793-013	08 Apr 2009	11:26:36	1	2.7092	1.0	1.00
60	R0901793-015	08 Apr 2009	11:27:19	1	0.3578	1.0	1.00
61	CCV	08 Apr 2009	11:28:04	1	7.9570	1.0	1.00
62	CCB	08 Apr 2009	11:28:48	1	-0.0111	1.0	1.00
63	R0901793-017	08 Apr 2009	11:29:32	1	0.6037	1.0	1.00
64	1793-017 DUP	08 Apr 2009	11:30:15	1	0.5395	1.0	1.00
65	1793-017 SPK	08 Apr 2009	11:30:59	1	1.8642	1.0	1.00
66	R0901677-001	08 Apr 2009	11:31:43	1	1.8719	1.0	1.00
67	R0901679-001	08 Apr 2009	11:32:26	1	0.2586	1.0	1.00
68	1679-001 DUP	08 Apr 2009	11:33:10	1	0.2402	1.0	1.00
69	1679-001 SPK	08 Apr 2009	11:33:53	1	2.7460	1.0	1.00
70	R0901679-002	08 Apr 2009	11:34:37	1	0.6774	1.0	1.00
71	R0901679-003	08 Apr 2009	11:35:19	1	0.7475	1.0	1.00
72	R0901679-004	08 Apr 2009	11:36:02	1	0.9087	1.0	1.00
73	CCV	08 Apr 2009	11:36:45	1	8.0544	1.0	1.00
74	CCB	08 Apr 2009	11:37:27	1	-0.0111	1.0	1.00
75	R0901679-005	08 Apr 2009	11:38:10	1	0.5930	1.0	1.00

OPERATOR: NMEAD  
 ACQ. TIME: Apr 8, 2009 10:45:09  
 DATA FILENAME: C:\OMNION\DATA\090408A1.FDT  
 TRAY FILENAME: C:\OMNION\TRAYS\0904080A.TRA

Multi-Channel Table  
 Type: Unknowns  
 Channel Range: 1 to 8 -- Cup Range: 76 to 100

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	QC 8000 351.2 TKN (mg/L)	Man Dil Factor	Auto Dil Factor
76	R0901679-006	08 Apr 2009	11:38:54	1	1.6204	1.0	1.00
77	R0901679-007	08 Apr 2009	11:39:39	1	3.5428	1.0	1.00
78	R0901679-008	08 Apr 2009	11:40:24	1	0.4644	1.0	1.00
79	1679-008 DUP	08 Apr 2009	11:41:07	1	0.4604	1.0	1.00
80	1679-008 SPK	08 Apr 2009	11:41:51	1	2.8608	1.0	1.00
81	R0901809-001	08 Apr 2009	11:42:34	1	15.3510	2.0	1.00
82	R0901754-003	08 Apr 2009	11:43:18	1	0.7263	1.0	1.00
83	R0901717-001	08 Apr 2009	11:44:02	1	172.8413	1.0	1.00
84	R0901717-002	08 Apr 2009	11:44:45	1	117.9532	1.0	1.00
85	CCV	08 Apr 2009	11:45:29	1	8.2365	1.0	1.00
86	CCB	08 Apr 2009	11:46:12	1	0.0467	1.0	1.00
87	R0901722-001	08 Apr 2009	11:46:55	1	141.0831	1.0	1.00
88	R0901722-019	08 Apr 2009	11:47:38	1	23.1435	1.0	1.00
89	R0901801-001	08 Apr 2009	11:48:20	1	0.5802	1.0	1.00
90	1801-001 DUP	08 Apr 2009	11:49:03	1	0.5881	1.0	1.00
91	1801-001 SPK	08 Apr 2009	11:49:47	1	2.9338	1.0	1.00
92	R0901801-002	08 Apr 2009	11:50:32	1	0.7713	1.0	1.00
93	R0901801-003	08 Apr 2009	11:51:17	1	0.3437	1.0	1.00
94	R0901801-004	08 Apr 2009	11:52:01	1	1.0031	1.0	1.00
95	R0901801-005	08 Apr 2009	11:52:45	1	0.2691	1.0	1.00
96	R0901801-006	08 Apr 2009	11:53:29	1	0.2528	1.0	1.00
97	CCV	08 Apr 2009	11:54:12	1	8.2154	1.0	1.00
98	CCB	08 Apr 2009	11:54:56	1	0.0008	1.0	1.00
99	R0901801-007	08 Apr 2009	11:55:39	1	0.2801	1.0	1.00
100	R0901801-008	08 Apr 2009	11:56:23	1	0.5458	1.0	1.00

*(1/100 dil. @ digest) = 1535.10*

*- rpt @ # 117 - 1/100*  
*- rpt @ # 118 - 1/20*

*- rpt @ # 119 - 1/50*  
*- rpt @ # 120 - 1/4*

OPERATOR: NMEAD  
 ACQ. TIME: Apr 8, 2009 10:45:09  
 DATA FILENAME: C:\OMNION\DATA\090408A1.FDT  
 TRAY FILENAME: C:\OMNION\TRAYS\0904080A.TRA

Multi-Channel Table  
 Type: Unknowns  
 Channel Range: 1 to 8 -- Cup Range: 101 to 125

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	QC 8000 351.2 TKN (mg/L)	Man Dil Factor	Auto Dil Factor
101	R0901801-009	08 Apr 2009	11:57:06	1	0.3222	1.0	1.00
102	R0901801-010	08 Apr 2009	11:57:50	1	0.4606	1.0	1.00
103	R0901801-011	08 Apr 2009	11:58:34	1	0.4110	1.0	1.00
104	R0901801-012	08 Apr 2009	11:59:16	1	0.2652	1.0	1.00
105	R0901801-013	08 Apr 2009	11:59:59	1	0.2281	1.0	1.00
106	R0901801-014	08 Apr 2009	12:00:43	1	0.3436	1.0	1.00
107	R0901801-015	08 Apr 2009	12:01:28	1	0.4278	1.0	1.00
108	R0901801-016	08 Apr 2009	12:02:12	1	0.4469	1.0	1.00
109	CCV	08 Apr 2009	12:02:57	1	8.1987	1.0	1.00
110	CCB	08 Apr 2009	12:03:42	1	-0.0047	1.0	1.00
111	R0901801-017	08 Apr 2009	12:04:26	1	0.4621	1.0	1.00
112	1801-017 DUP	08 Apr 2009	12:05:10	1	0.4901	1.0	1.00
113	1801-017 SPK	08 Apr 2009	12:05:53	1	2.9663	1.0	1.00
114	R0901812-001 RPT	08 Apr 2009	12:06:37	1	0.1972	1.0	1.00
115	R0901728-001 RPT	08 Apr 2009	12:07:20	1	0.2487	1.0	1.00
116	R0901728-002 RPT	08 Apr 2009	12:08:04	1	0.2112	1.0	1.00
117	R0901717-001 RPT 1/100	08 Apr 2009	12:08:48	1	391.5182	100.0	1.00
118	R0901717-002 RPT 1/20	08 Apr 2009	12:09:31	1	144.1949	20.0	1.00
119	R0901722-001 RPT 1/50	08 Apr 2009	12:10:15	1	225.1832	50.0	1.00
120	R0901722-019 RPT 1/4	08 Apr 2009	12:10:57	1	23.4281	4.0	1.00
121	CCV	08 Apr 2009	12:11:42	1	8.1768	1.0	1.00
122	CCB	08 Apr 2009	12:12:27	1	-0.0111	1.0	1.00

(14 dil. @ digest) = 1566.0  
 (14 dil. @ digest) = 576.78  
 (14 dil. @ digest) = 900.73  
 (14 dil. @ digest) = 93.71

OPERATOR: NMEAD  
 ACQ. TIME: Apr 8, 2009 13:22:53  
 DATA FILENAME: C:\OMNION\DATA\090408A2.FDT  
 TRAY FILENAME: C:\OMNION\TRAYS\090408A2.TRA

Multi-Channel Table  
 Type: Unknowns  
 Channel Range: 1 to 8 -- Cup Range: 1 to 25

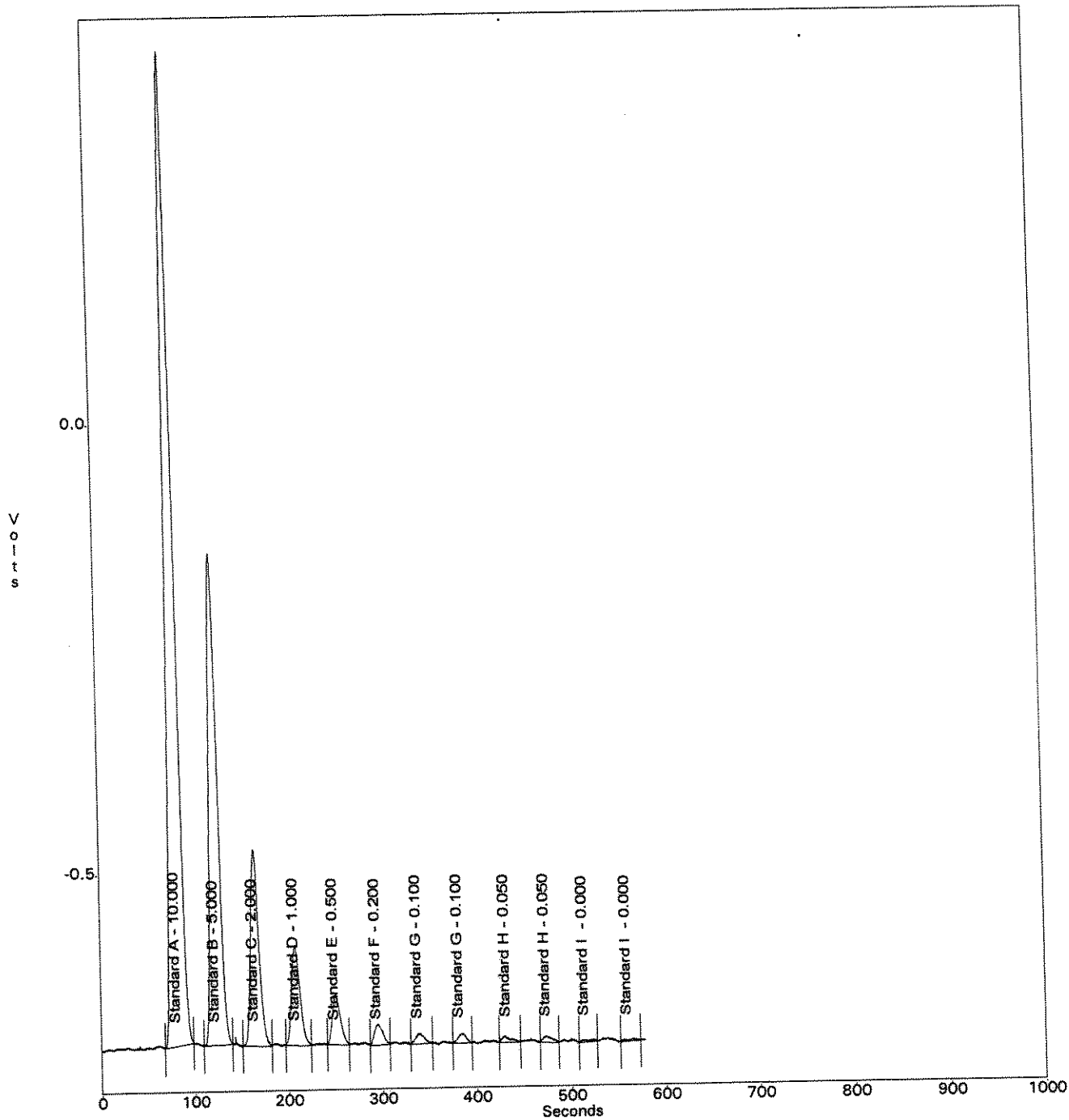
Cup	Sample ID	Sampling Date	Sampling Time	Rep #	QC 8000 351.2 TKN (mg/L)	Man Dil Factor	Auto Dil Factor
1	CCV	08 Apr 2009	13:22:56	1	7.8778	1.0	1.00
2	CCB	08 Apr 2009	13:23:39	1	-0.0111	1.0	1.00
3	LCS-2 RL INORG TV= 2.50	08 Apr 2009	13:24:23	1	2.7017	1.0	1.00
4	CCV	08 Apr 2009	13:25:06	1	7.9779	1.0	1.00
5	CCB	08 Apr 2009	13:25:49	1	0.0004	1.0	1.00

*-okay - 1080/0*

OPERATOR:  
ACQ. TIME:  
DATA FILENAME:  
TRAY FILENAME:

NMEAD  
Apr 8, 2009 10:33:04  
C:\OMNION\DATA\0904080A.FDT  
C:\OMNION\TRAYS\0904080A.TRA

Channel 1 - QC 8000 351.2 TKN

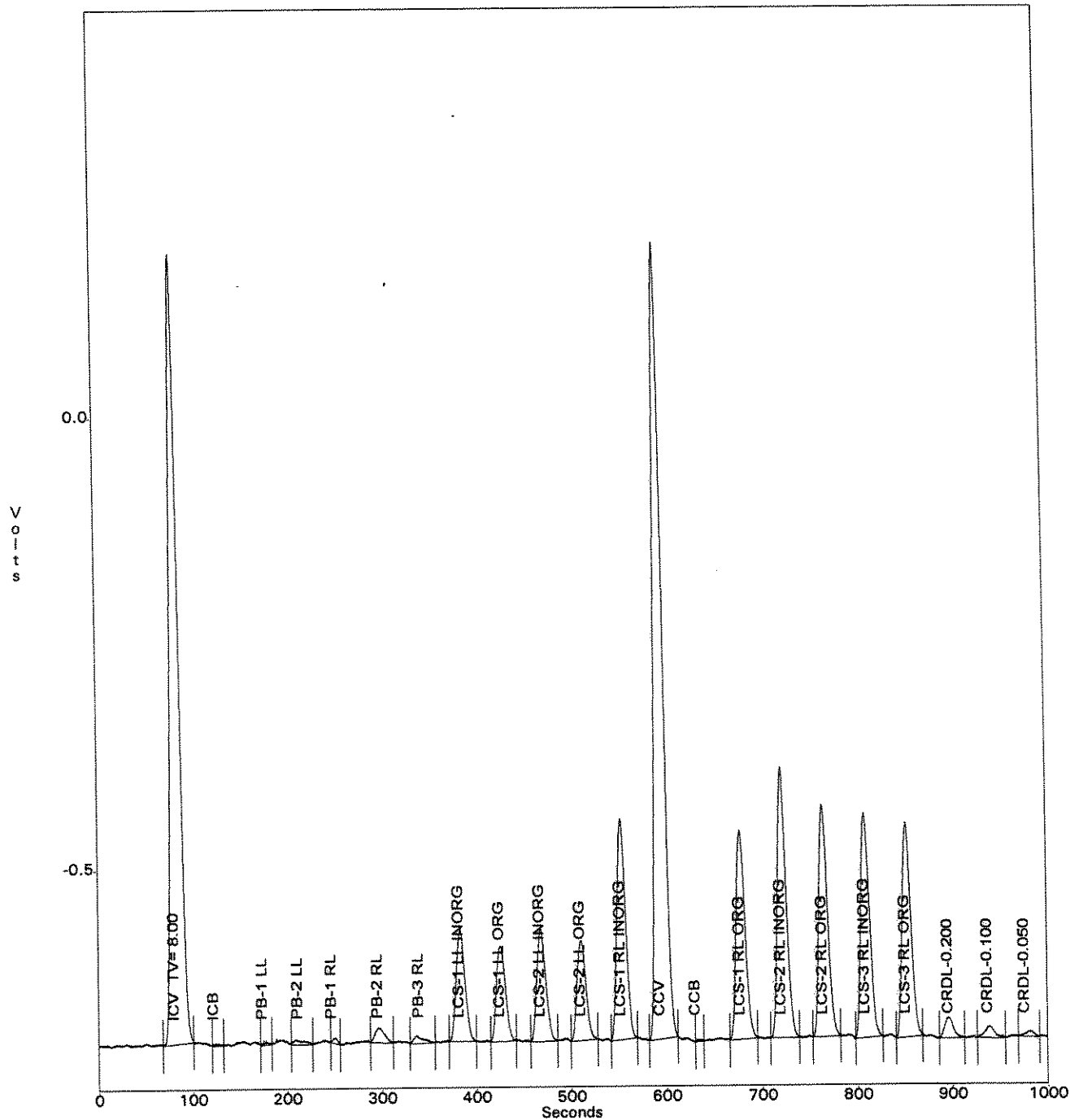




OPERATOR:  
ACQ. TIME:  
DATA FILENAME:  
TRAY FILENAME:

NMEAD  
Apr 8, 2009 10:45:09  
C:\OMNION\DATA\090408A1.FDT  
C:\OMNION\TRAYS\0904080A.TRA

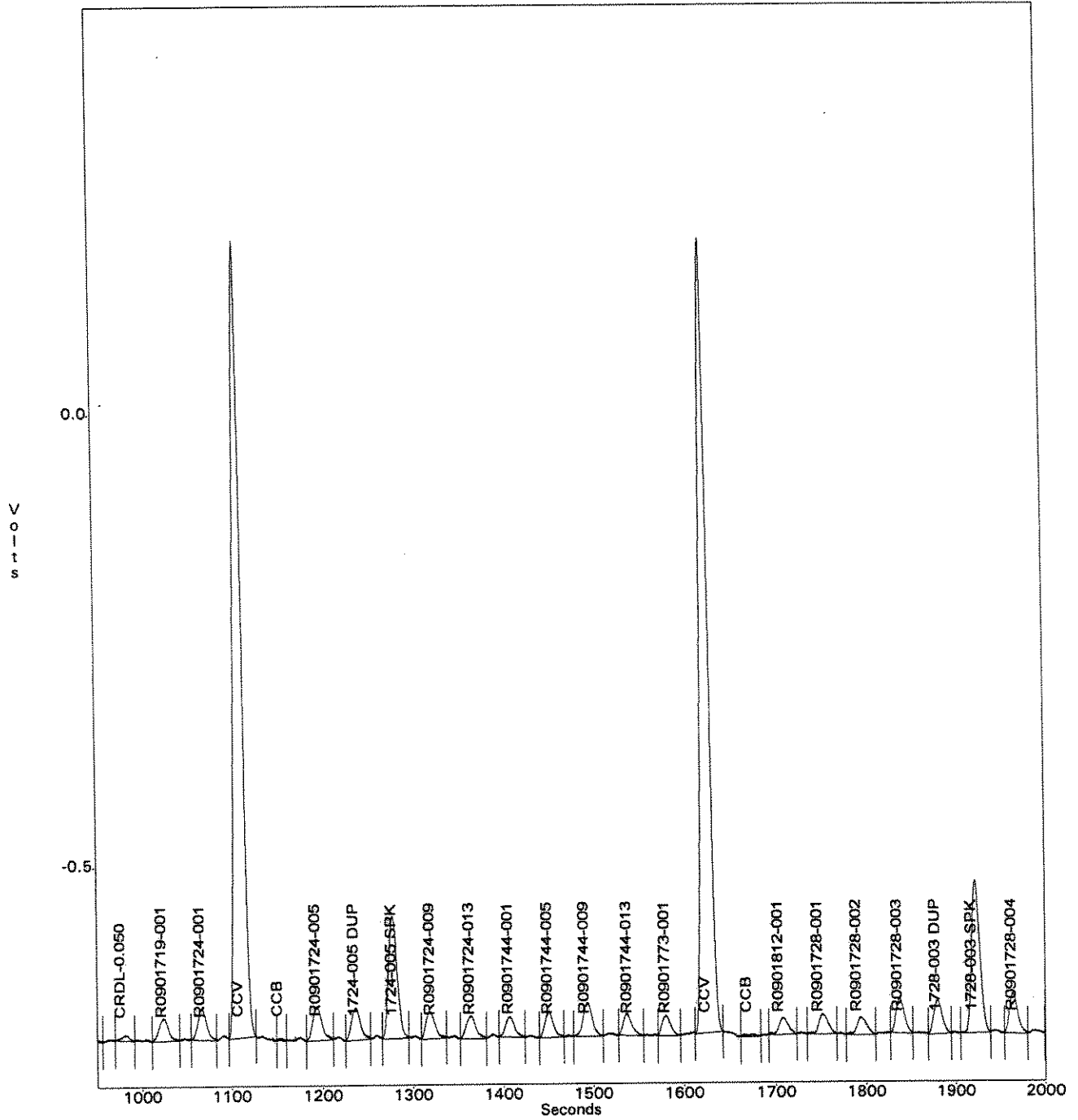
Channel 1 - QC 8000 351.2 TKN



OPERATOR:  
ACQ. TIME:  
DATA FILENAME:  
TRAY FILENAME:

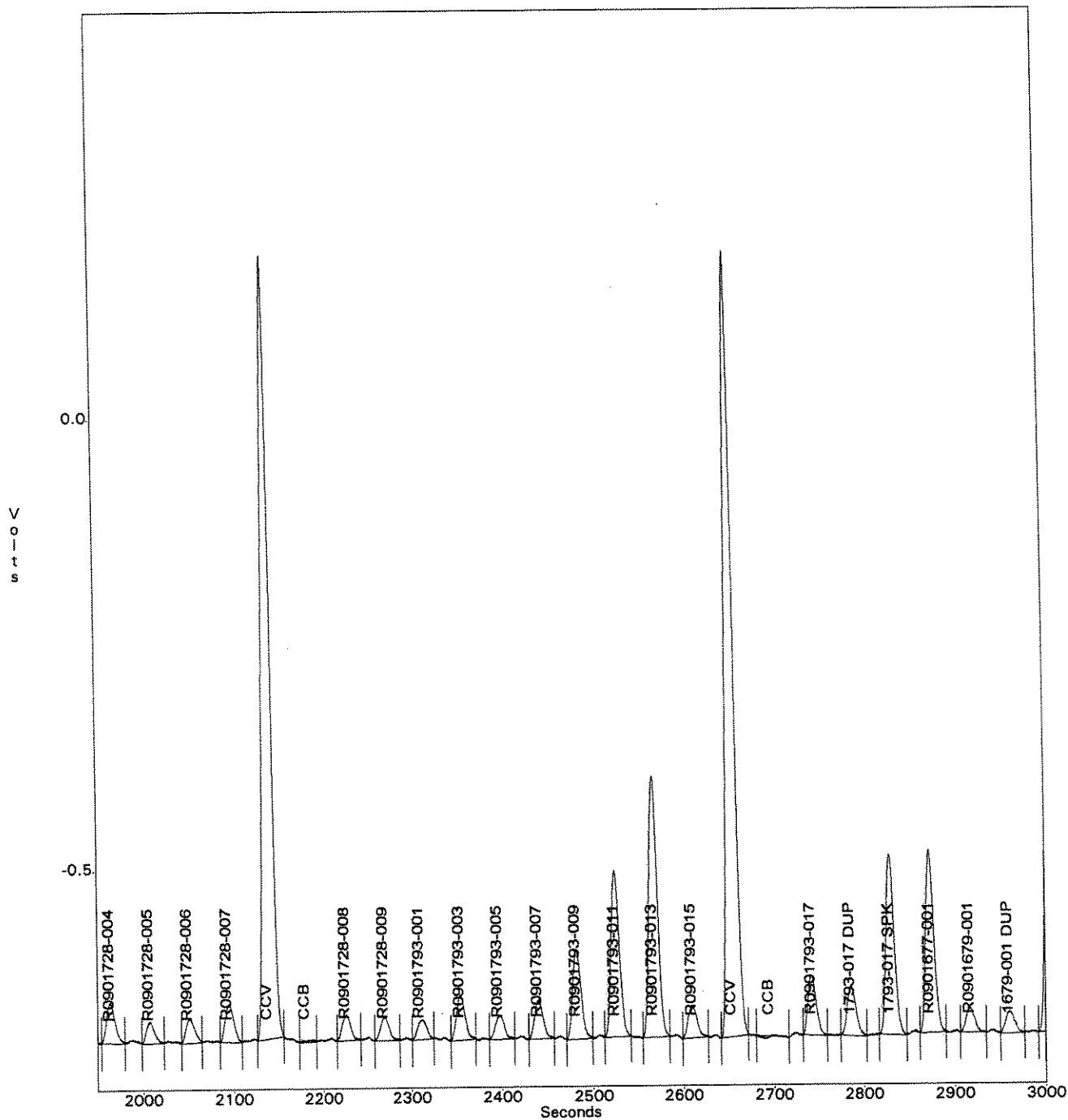
NMEAD  
Apr 8, 2009 10:45:09  
C:\OMNION\DATA\090408A1.FDT  
C:\OMNION\TRAYS\0904080A.TRA

Channel 1 - QC 8000 351.2 TKN



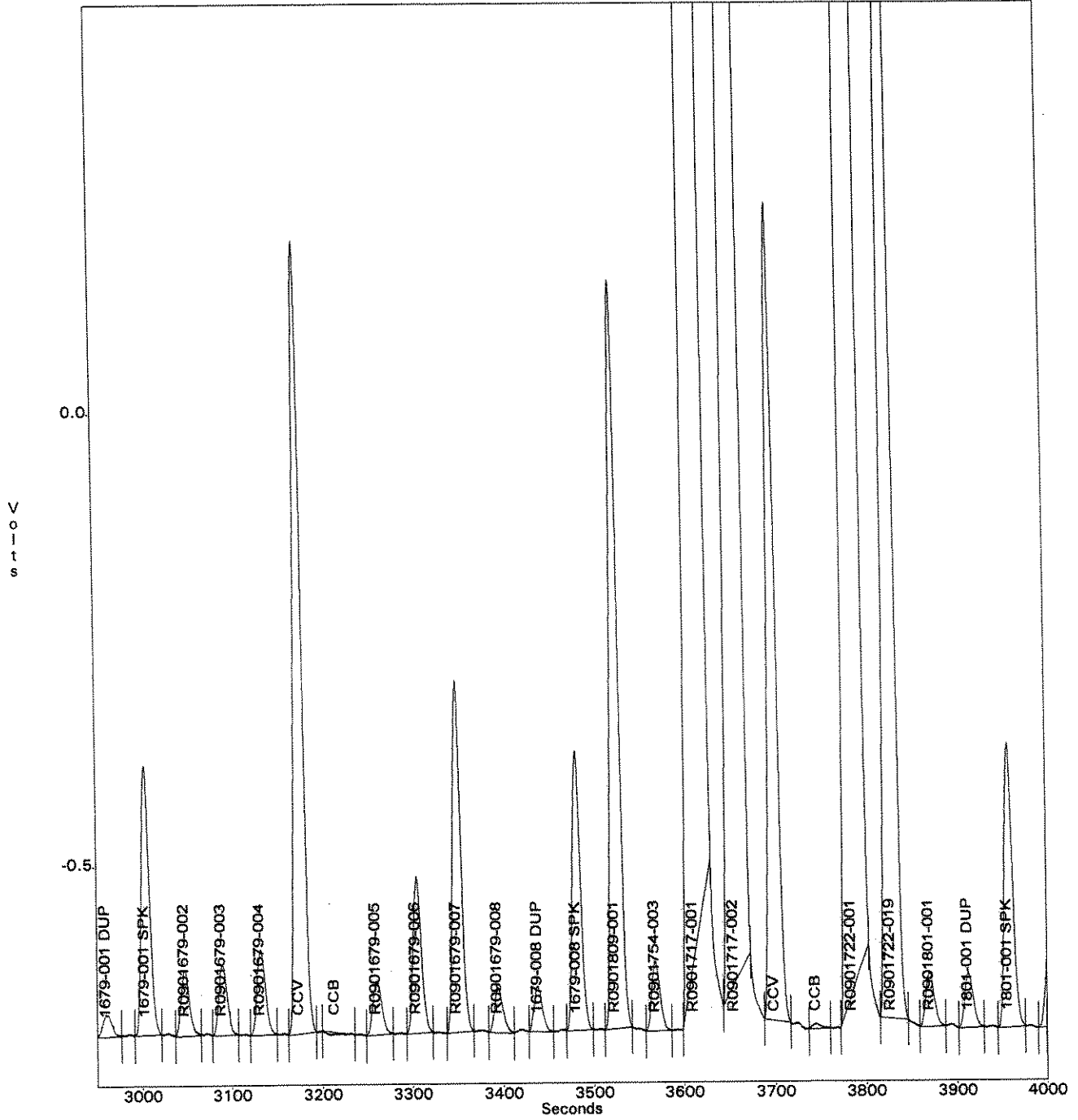
OPERATOR: NMEAD  
ACQ. TIME: Apr 8, 2009 10:45:09  
DATA FILENAME: C:\OMNION\DATA\090408A1.FDT  
TRAY FILENAME: C:\OMNION\TRAYS\0904080A.TRA

Channel 1 - QC 8000 351.2 TKN



OPERATOR: NMEAD  
ACQ. TIME: Apr 8, 2009 10:45:09  
DATA FILENAME: C:\OMNION\DATA\090408A1.FDT  
TRAY FILENAME: C:\OMNION\TRAYS\0904080A.TRA

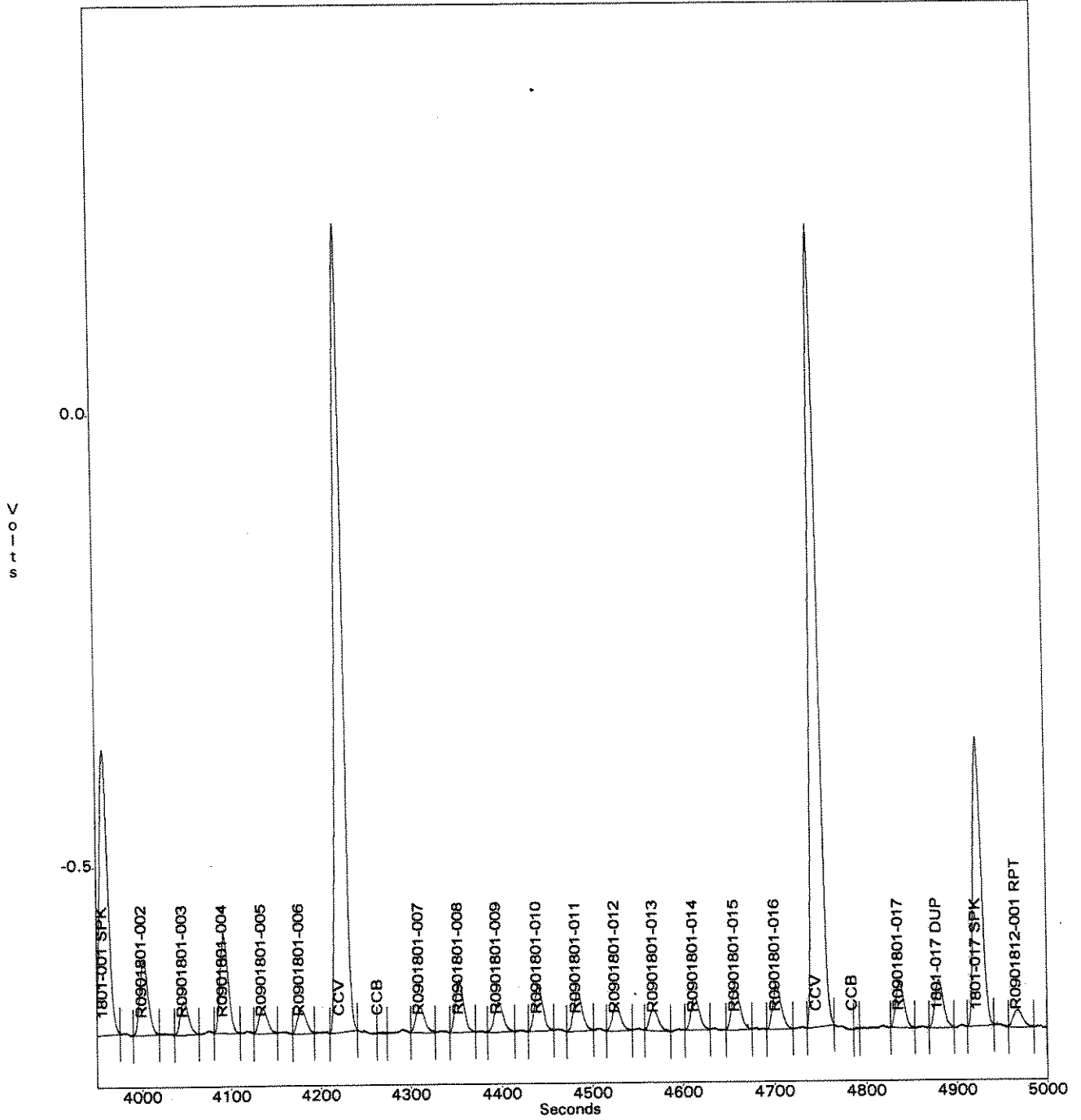
Channel 1 - QC 8000 351.2 TKN



OPERATOR:  
ACQ. TIME:  
DATA FILENAME:  
TRAY FILENAME:

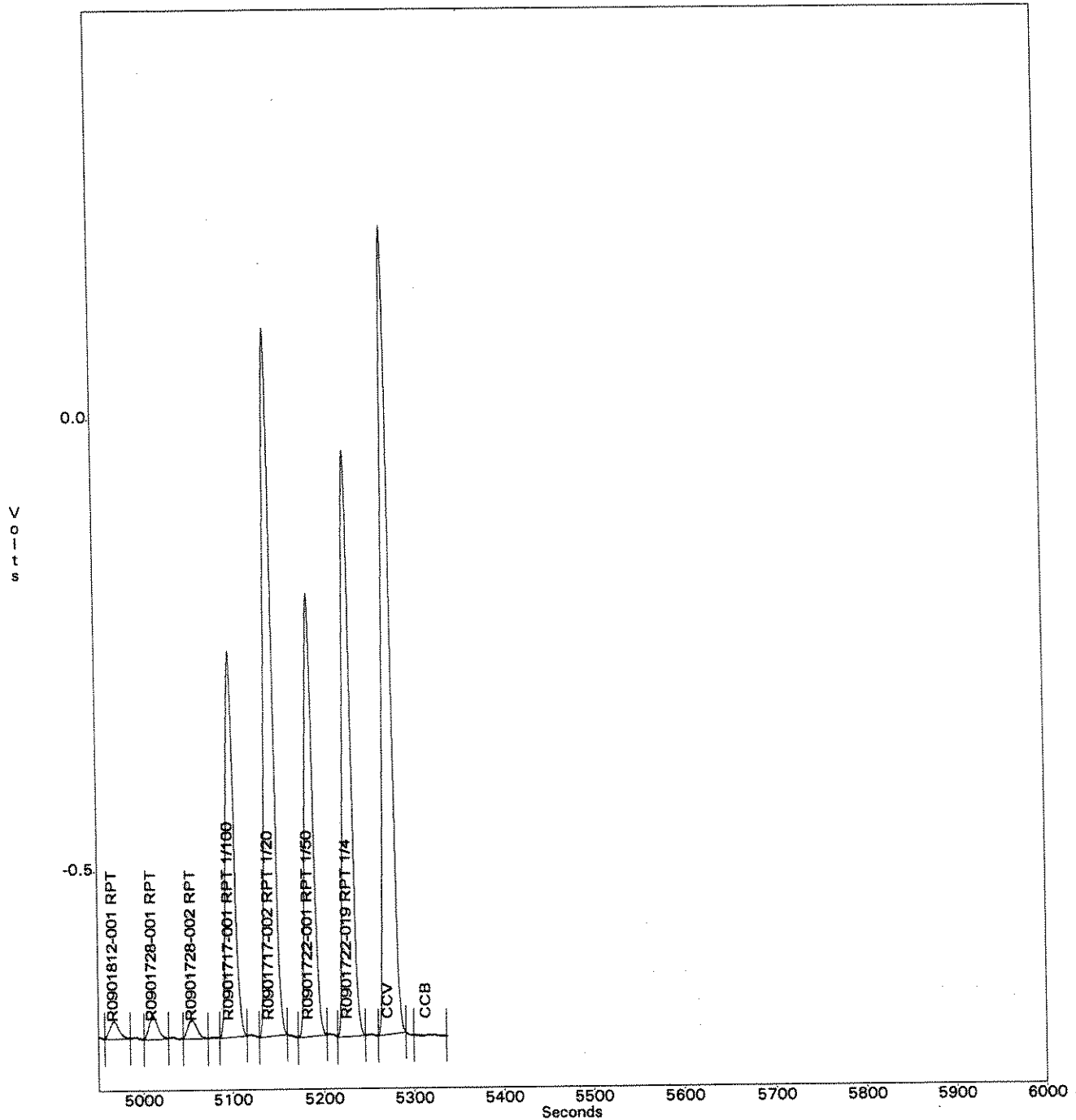
NMEAD  
Apr 8, 2009 10:45:09  
C:\OMNION\DATA\090408A1.FDT  
C:\OMNION\TRAYS\0904080A.TRA

Channel 1 - QC 8000 351.2 TKN



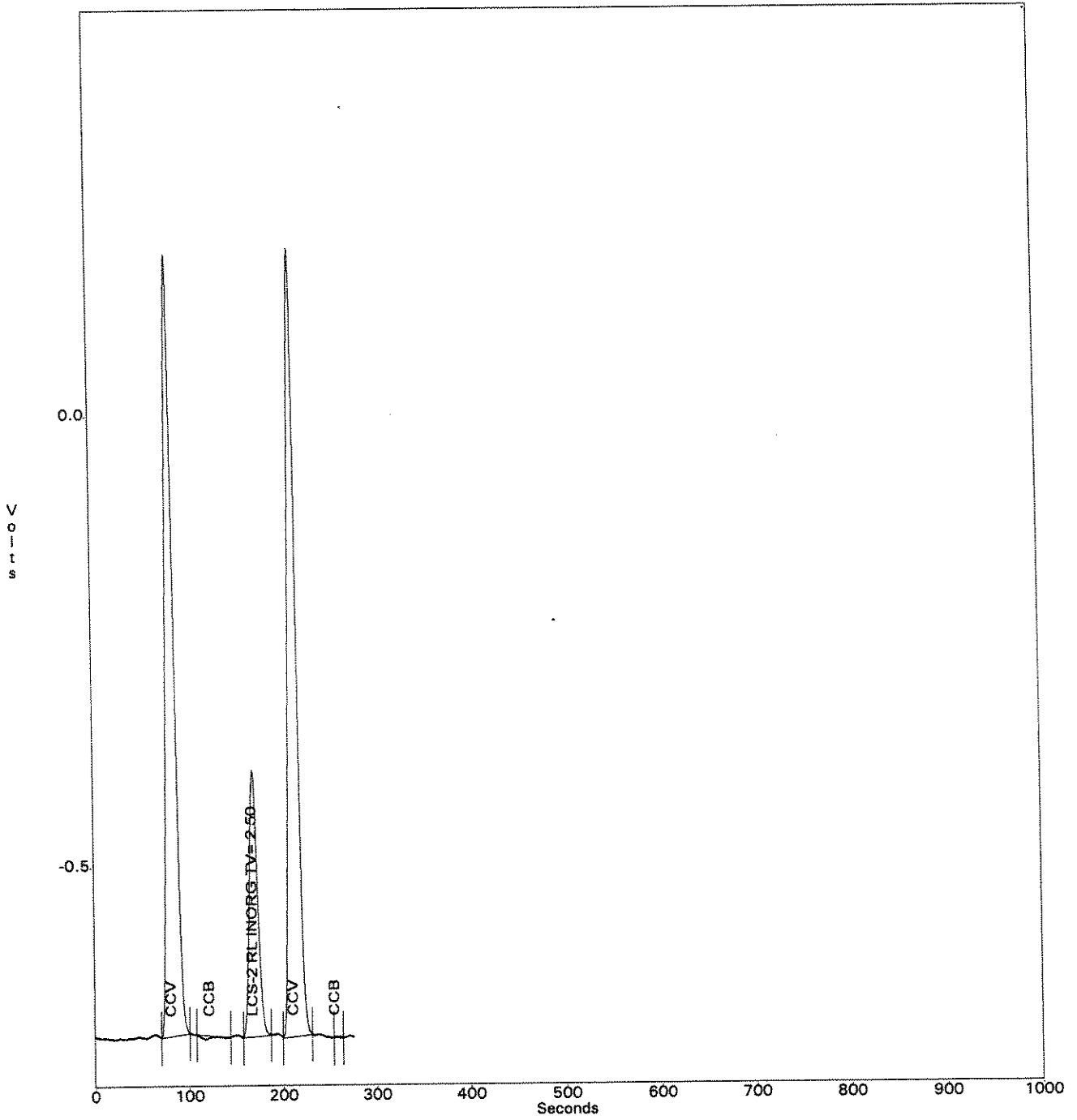
OPERATOR: NMEAD  
ACQ. TIME: Apr 8, 2009 10:45:09  
DATA FILENAME: C:\OMNION\DATA\090408A1.FDT  
TRAY FILENAME: C:\OMNION\TRAYS\0904080A.TRA

Channel 1 - QC 8000 351.2 TKN



OPERATOR: NMEAD  
ACQ. TIME: Apr 8, 2009 13:22:53  
DATA FILENAME: C:\OMNION\DATA\090408A2.FDT  
TRAY FILENAME: C:\OMNION\TRAYS\090408A2.TRA

Channel 1 - QC 8000 351.2 TKN



OPERATOR: NMEAD  
ACQ. TIME: Apr 8, 2009 10:33:04  
DATA FILENAME: C:\OMNION\DATA\0904080A.FDT  
METHOD FILENAME:  
TRAY FILENAME: C:\OMNION\TRAYS\0904080A.TRA

TRAY DESCRIPTION:  
Created: Apr 8, 2009 9:50:17  
Modified: Apr 8, 2009 9:50:17  
QC 8000 351.2 TKN - RUN LOG - 0904080A  
DATA DESCRIPTION:  
Created: Apr 8, 2009 10:33:04  
Modified: Apr 8, 2009 10:33:04

Method - Ch. 1 (QC 8000 351.2 TKN)

METHOD DESCRIPTION:  
Created: Jun 16, 2005 12:30:57  
Modified: Apr 7, 2009 16:44:12  
QC 8000 351.2 TKN - Run Log -

ANALYTE DATA:  
Analyte Name: QC 8000 351.2 TKN  
Concentration Units: mg/L  
Chemistry: Direct  
Inject to Peak Start (s): 35.0  
Peak Base Width (s): 14.000  
% Width Tolerance: 79.000  
Threshold: 2497.000  
Autodilution Trigger: Off  
QuikChem Method: 10-107-06-2-1

CALIBRATION DATA:  
Levels:  
1 : 10.000    2 : 5.000    3 : 2.000    4 : 1.000  
5 : 0.500    6 : 0.200    7 : 0.100    8 : 0.050  
9 : 0.000  
Calibration Rep Handling: Average  
Calibration Fit Type: 1st Order Poly  
Force Though Zero: No  
Weighting Method: 1/X  
Concentration Scaling: None



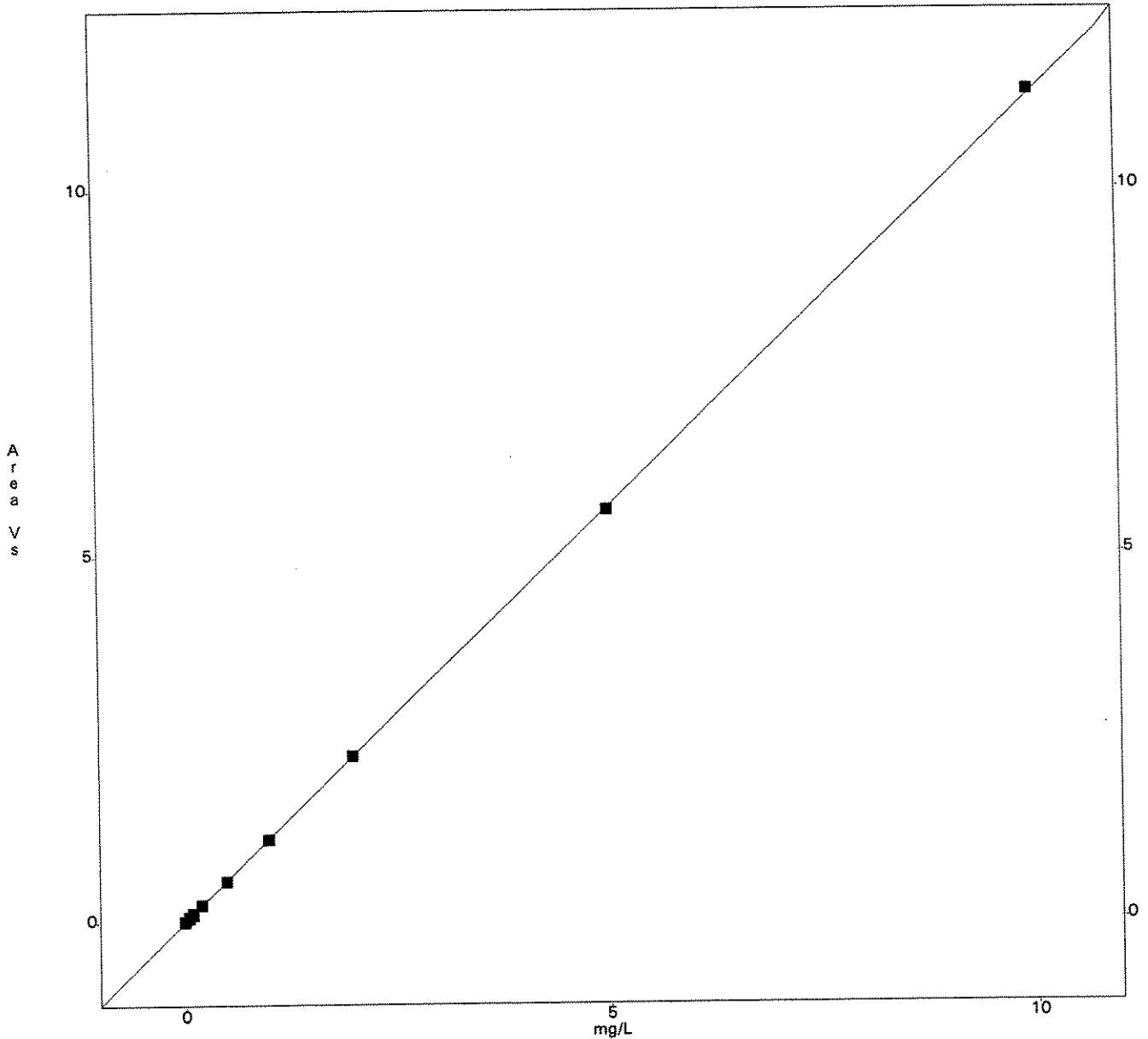
QC 8000 351.2 TKN

Lvl	Area	mg/L	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Replic STD	Replic % RSD	Residual 1st Poly
1	11337646	10.00	11337646					0.0	0.0	-0.5
2	5615935	5.00	5615935					0.0	0.0	0.5
3	2261272	2.00	2261272					0.0	0.0	0.2
4	1129770	1.00	1129770					0.0	0.0	0.8
5	558514	0.50	558514					0.0	0.0	3.1
6	241922	0.20	241922					0.0	0.0	-1.8
7	116704	0.10	105363	128045				16038.6	13.7	7.5
8	68707	0.05	80549	56865				16747.1	24.4	0.3
9	13897	0.00	10131	17663				5325.9	38.3	

1st Order Poly  
 Conc = 8.878e-007 Area - 1.113e-002  
 r = 1.0000

*pipette ID: E-1*

Scaling: None - Weighting: 1/X



Printed: Wednesday, April 08, 2009 - 10:43 AM

General Chemistry Analytical Run Cover Sheet

Analyst: N. Mead

Date: 4/8/09

Analysis: Total Kjeldahl Nitrogen, 0.05 TO 10.0 mg/L

Instrument: Lachat 8000

Quality Control:

	Same as Log#, Date,	Stocks Prep. Log#, Date,	Stock Sol (mLs)	Stock Sol (mg/L)	Final Vol (mLs)	True Value (mg/L)
a) Standards Prep.:	WC64065B, 05/16/02	WC85257E, 1/19/09				
b) I/CCV Preparation:	WC64065C, 05/16/02	WC85257H, 1/19/09	0.2	400	10	8.00
c) LCS Prep, Reg Lvl:	WC64065E, 05/16/02	WC85257E, 1/19/09	0.05	1000	20	2.50
c) LCS Prep, Low Lvl:	WC64065D, 05/16/02	WC85257E, 1/19/09	0.025	1000	20	1.25
c) LCS Prep, SOILS		WC85257E, 1/19/09	0.05	1000	0.2 g	250 ug/g
d) Matrix Spk, Reg Lvl:	WC64065E, 05/16/02	WC85257E, 1/18/09	0.05	1000	20	2.50
d) Matrix Spk, Low Lvl:	WC64065D, 05/16/02	WC85257E, 1/19/09	0.025	1000	20	1.25
d) Mtx Spk Prep, SOILS		WC85257E, 1/19/09	0.05	1000	~ 0.2 g	~250 ug/g
e) Org LCS Prep, RL:	WC85165E, 06/19/08	WC85257F, 1/19/09	0.1	1000	20	5.00
e) Org LCS Prep, LL:	WC85165F, 06/19/08	WC85257F, 1/19/09	0.05	1000	20	2.50

Comments:

Comments

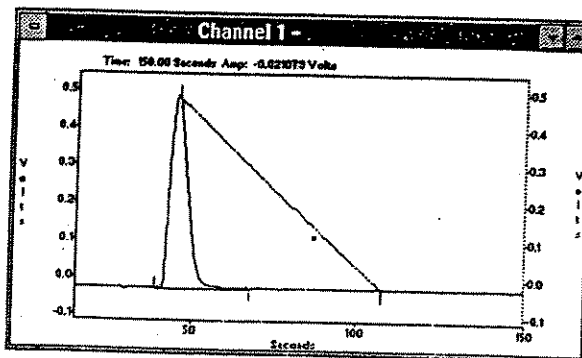
On some Lachat runs the baseline appears to be drawn from peak to peak, missing any samples or blanks in between the peaks. This is not unusual, as noted in the page from the QC 8000 operating manual shown below.

QuikChem FIA+

Troubleshooting Guide

CASE 7

A sample or standard is followed by a blank. The integration baseline will be drawn as shown. There is nothing wrong with this scenario as long as the area for the blank is zero or its reported concentration equals the intercept of the calibration curve equation.



p:\V1\g\formstallcover.xls TKN

5/16/02 (A) TKN 10 ppm Working Stock

Nm • 1.0 mls of 1000 ppm NH<sub>3</sub>/TKN Standard Stock (WC6420) + 99 mls UPDI in a 100 ml vol. flask. Prepare fresh each r

(B) TKN Standards

(WC64065A)

Std.	Conc. (mg/l)	mls 10 ppm	PDmm mls UPDI 10mls	If diges
A	10.0	10.0	0.0	X3
B	5.00	5.00	5.00	X3
C	2.00	2.00	8.00	X3
D	1.00	1.00	9.00	X3
E	0.50	1/10 dil'n of STD. B) 5.00	5.00	X3
F	0.20	1/10 dil'n of STD C) 2.00	2.00	X2
G	0.10	1/10 dil'n of STD D) 1.00	1.00	X2
H	0.05	1/10 dil'n of STD E) 0.50	0.50	X2
I	0.00	0.00	10.0	X2

(C) ICV/CCV TKN'S (TV = 8.00)

• 9.8 mls PDmm + 0.2 mls 400 ppm Reference working stock (WC6420C).

(D) LCS/matrix Spike for LL (TV = 1.25 mg/L)

Digested w/samples. Add 0.025 mls 1000 ppm NH<sub>3</sub>/TKN Working Stock (WC6420A) to 20 mls UPDI or Sample

(E) LCS/matrix Spike for RL (TV = 2.5 mg/L)

Digested w/samples. Add 0.050 mls 1000 ppm NH<sub>3</sub>/TKN Working Stock (WC6420A) to 20 mls UPDI or Sample.

Head and Understood B) 6/7/02

Signed \_\_\_\_\_

Date \_\_\_\_\_

Signed \_\_\_\_\_

Date \_\_\_\_\_

h run.

at 4°C

to 1000 g w/DI.  
(7357)

Diphenylcarbohydrazide in  
ing to volume. Store at

n x 3.

each run,

2/1/09.

g Eriochrome Black T  
shake well to mix.

n DI Fresh per run

) with DI. Fresh per run.

) and 0.10g EDTA (WC85210C)  
n amber glass.

1/15/09  
NM

(A) Buffer - NH<sub>3</sub>  
- same as WC85247I. Exp. 1 year, 1/15/10.



(B) Buffer - TKN  
- same as WC85246C. Exp. 1 month, 2/15/09.

1/3/09  
Cbr

(C) NO<sub>2</sub> Color Reagent - Konalab  
In 100 ml vol flask, dissolve 1.00g sulfanilamide (WC85167F) and 0.10g NED (WC76202H) in 10 ml H<sub>2</sub>PO<sub>4</sub> (WC76214F) bring to volume with DI. Store at 4°C Exp 2/15/09

1/19/09  
BB

(D) Rhodamine Indicator Solution  
Dissolve 0.020g 5-(4-DMAA) Rhodamine (WC76015E) in 100 mL acetone (WC69222E). Store in glass @ R.T. Expires 1/19/10

1/19/09  
SBR

(E) NH<sub>3</sub> / TKN 1000 ppm Standard Stock  
3.819g granular NH<sub>4</sub>Cl (WC85085F), previously dried for 2 hrs @ 140°C. dissolve in ~800 mL DI in a 1 L volumetric flask. Bring to volume with DI. Store @ 4°C in amber glass. Expires 1/19/10

(F) 500 ppm Organic TKN Standard  
In a 1 Liter vol. flask, dissolve 5.252g L-glutamic acid (WC85029A) in ~800 mL DI. Bring to volume with DI. Store @ 4°C in amber glass Expires 1/19/10.  
TV = 500 mg/L nitrogen

(G) NH<sub>3</sub> 180 ppm Reference Stock  
0.687g granular NH<sub>4</sub>Cl (WC85085G), previously dried for 2 hrs @ 104°C. dissolve in ~800 mL DI in a 1 L vol. flask. Bring to volume with DI. Store @ 4°C in amber glass. Expires 1/19/10.

(H) TKN 400 ppm Reference Stock  
1.5276g granular NH<sub>4</sub>Cl (WC85085G), previously dried for 2 hrs @ 104°C. dissolve in ~800 mL DI in a 1 L vol. flask. Bring to volume with DI. Store @ 4°C in amber glass. Expires 1/19/10.

1/19/09  
EW

(I) TSS Reference  
0.212g Kaolin (WC69285G) brought to 1000g w/DI. Store in plastic bottle @ 4°C. (7485)  
TV = 212 mg/L Exp: 1/19/10

# FENCE INSPECTION

## LANDFILL

Date	Time	Inspector
1-03-09	12:15 PM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J	X			

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:** Plowed snow twice

### WELL INSPECTION

ID	WELL ID	WELL ID	LOCKED	LOCKED	COMMENTS
	YES	NO	YES	NO	
MW1-78	X				
MW2-78	X				
MW3-79	X				
BW1-86	X				
BW2-86	X				
BW3-86	X				
BW4-86	X				
BW5-86	X				
BW6-86	X				
WW1-86	X				
OW1-88	X				
OW2-88	X				

### NYSDEC WELLS

INSTALLED SEPT/OCT 93

GW7B-93	X				
GW8A-93	X				
GW8B-93	X				
GW9A-93	X				
GW9B-93	X				
GW11B-93	X				

COMMENTS

# FENCE INSPECTION

## LANDFILL

Date	Time	Inspector
1-12-09	1:37 PM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J	X			

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:** Plowed snow twice sat & sun

**WELL INSPECTION**

ID	WELL ID	WELL ID	LOCKED	LOCKED	COMMENTS
	YES	NO	YES	NO	
MW1-78	X				
MW2-78	X				
MW3-79	X				
BW1-86	X				
BW2-86	X				
BW3-86	X				
BW4-86	X				
BW5-86	X				
BW6-86	X				
WW1-86	X				
OW1-88	X				
OW2-88	X				

**NYSDEC WELLS**

**INSTALLED SEPT/OCT 93**

GW7B-93	X				
GW8A-93	X				
GW8B-93	X				
GW9A-93	X				
GW9B-93	X				
GW11B-93	X				

**COMMENTS**



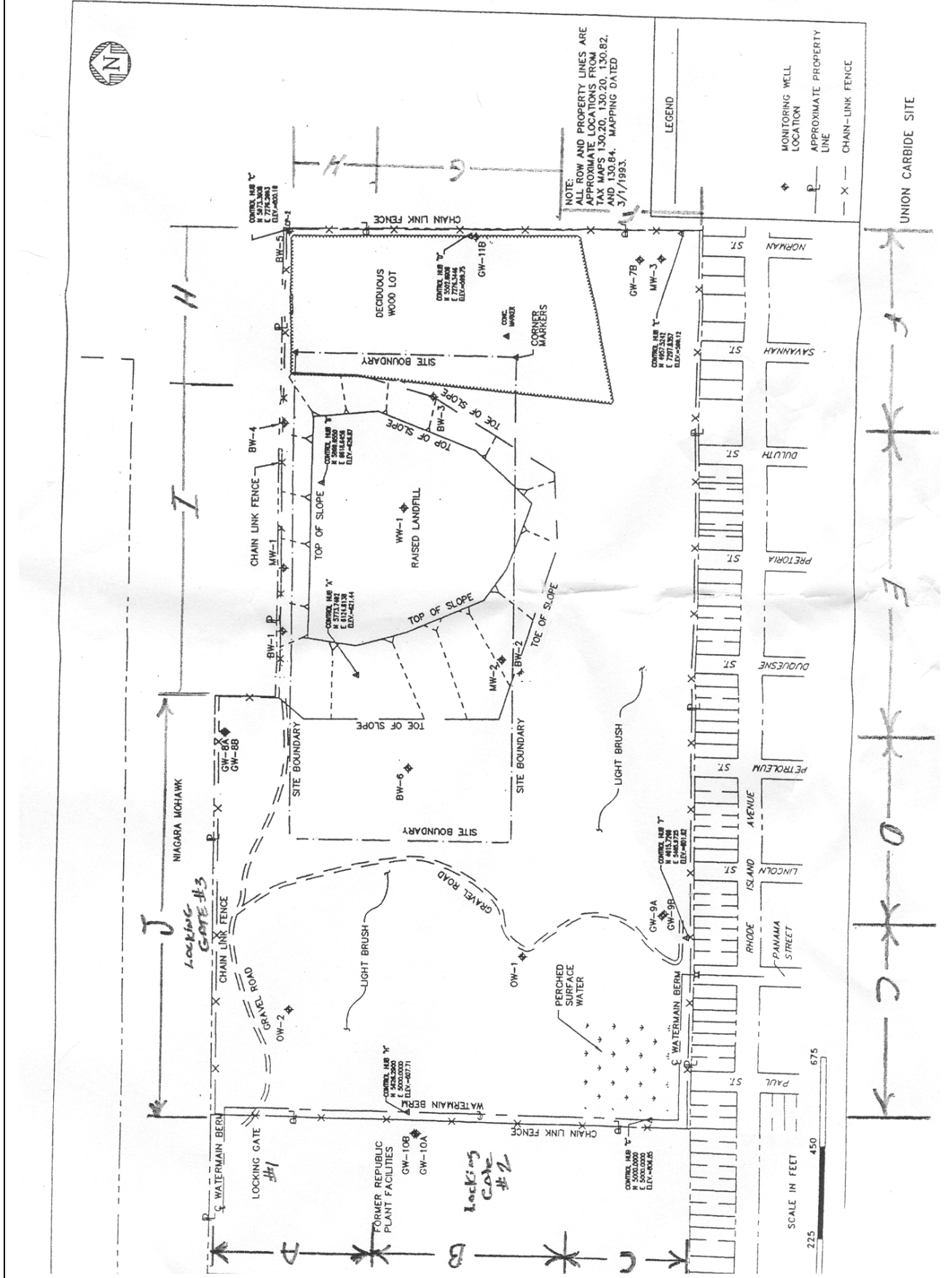


NOTE:  
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 APPROXIMATE LOCATIONS FROM  
 TAX MAPS 130.20, 130.20, 130.82,  
 AND 130.84, MAPPING DATED  
 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X- CHAIN-LINK FENCE

UNION CARBIDE SITE



SCALE IN FEET  
 225 450 675

# FENCE INSPECTION

## LANDFILL

Date	Time	Inspector
1-20-09	8:37 AM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J	X			

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:** Plowed snow twice Saturday & Monday

**WELL INSPECTION**

ID	WELL ID	WELL ID	LOCKED	LOCKED	COMMENTS
	YES	NO	YES	NO	
MW1-78	X				
MW2-78	X				
MW3-79	X				
BW1-86	X				
BW2-86	X				
BW3-86	X				
BW4-86	X				
BW5-86	X				
BW6-86	X				
WW1-86	X				
OW1-88	X				
OW2-88	X				

**NYSDEC WELLS**

**INSTALLED SEPT/OCT 93**

GW7B-93	X				
GW8A-93	X				
GW8B-93	X				
GW9A-93	X				
GW9B-93	X				
GW11B-93	X				

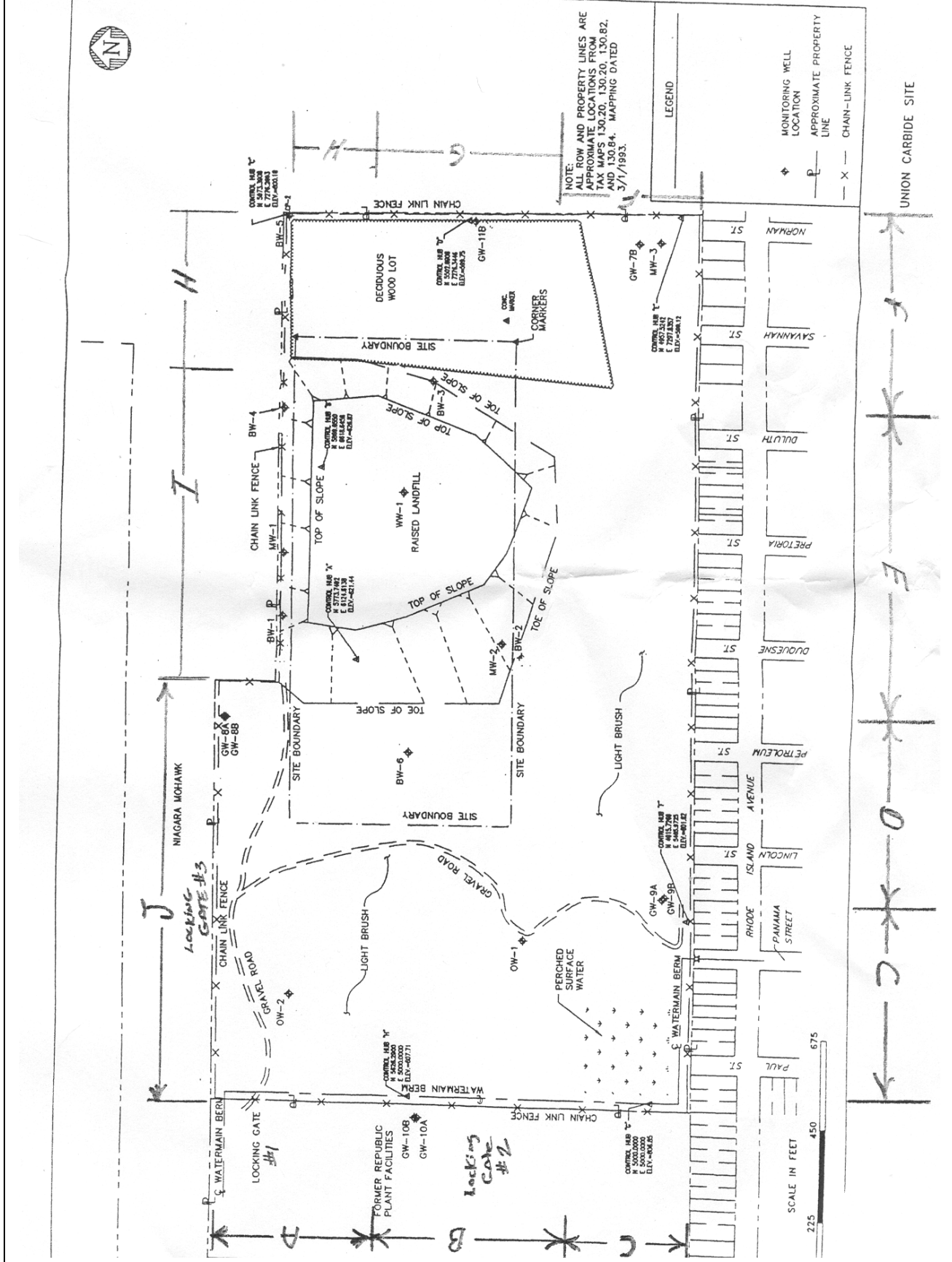
**COMMENTS**



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 AND 130.84, MAPPING DATED  
 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X- CHAIN-LINK FENCE



UNION CARBIDE SITE

SCALE IN FEET  
 225 450 675

# FENCE INSPECTION

## LANDFILL

Date	Time	Inspector
1-26-09	12:15 PM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J	X			

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:** Plowed snow on Sunday

**WELL INSPECTION**

ID	WELL ID	WELL ID	LOCKED	LOCKED	COMMENTS
	YES	NO	YES	NO	
MW1-78	X				
MW2-78	X				
MW3-79	X				
BW1-86	X				
BW2-86	X				
BW3-86	X				
BW4-86	X				
BW5-86	X				
BW6-86	X				
WW1-86	X				
OW1-88	X				
OW2-88	X				

**NYSDEC WELLS**

**INSTALLED SEPT/OCT 93**

GW7B-93	X				
GW8A-93	X				
GW8B-93	X				
GW9A-93	X				
GW9B-93	X				
GW11B-93	X				

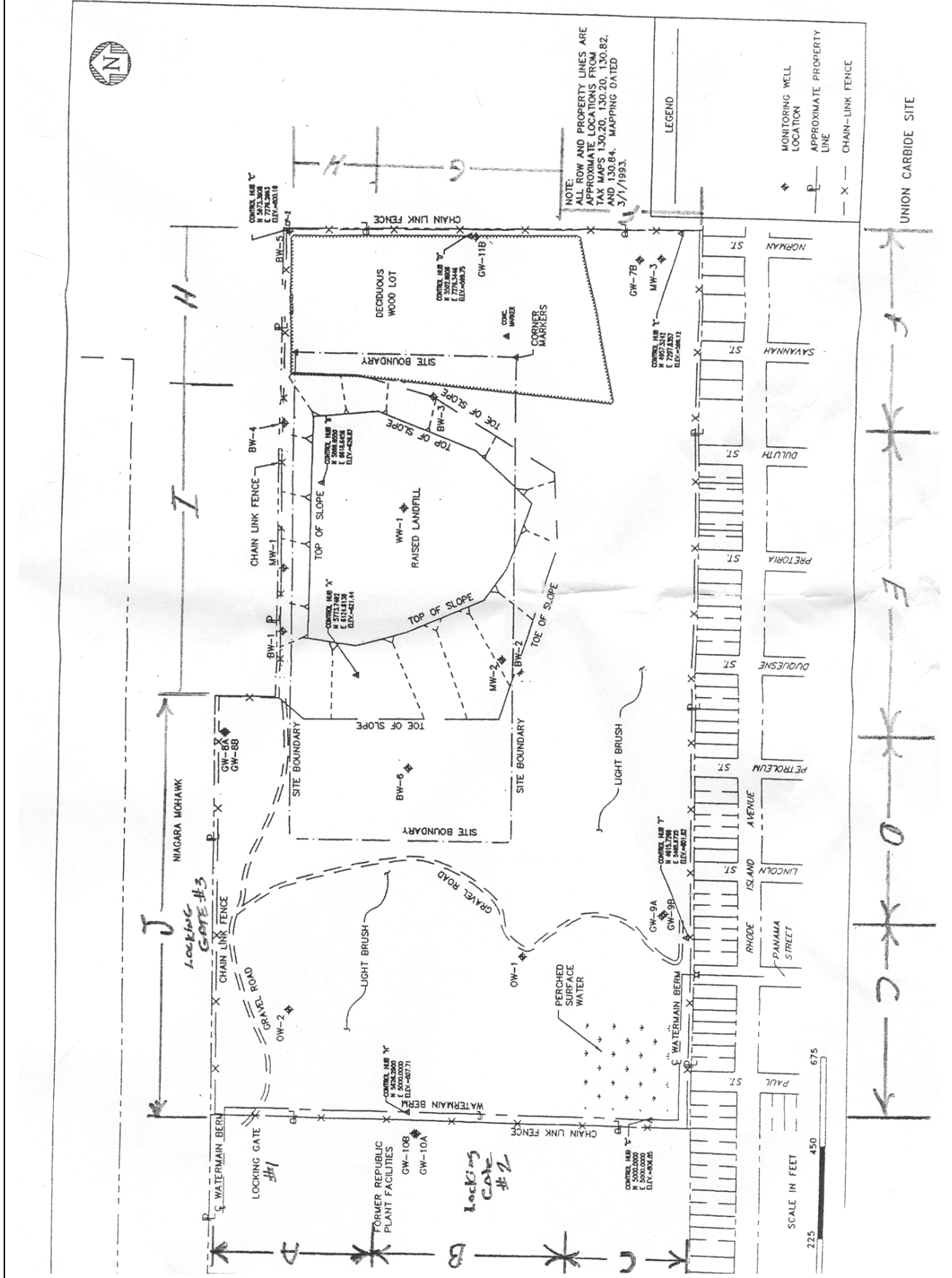
**COMMENTS**



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 AND 130.84, MAPPING DATED  
 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X- CHAIN-LINK FENCE



UNION CARBIDE SITE

# FENCE INSPECTION

## LANDFILL

Date	Time	Inspector
2-04-09	7:15 AM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J	X			

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:**



**WELL INSPECTION**

ID	WELL ID	WELL ID	LOCKED	LOCKED	COMMENTS
	YES	NO	YES	NO	
MW1-78	X				
MW2-78	X				
MW3-79	X				
BW1-86	X				
BW2-86	X				
BW3-86	X				
BW4-86	X				
BW5-86	X				
BW6-86	X				
WW1-86	X				
OW1-88	X				
OW2-88	X				

**NYSDEC WELLS**

**INSTALLED SEPT/OCT 93**

GW7B-93	X				
GW8A-93	X				
GW8B-93	X				
GW9A-93	X				
GW9B-93	X				
GW11B-93	X				

**COMMENTS**

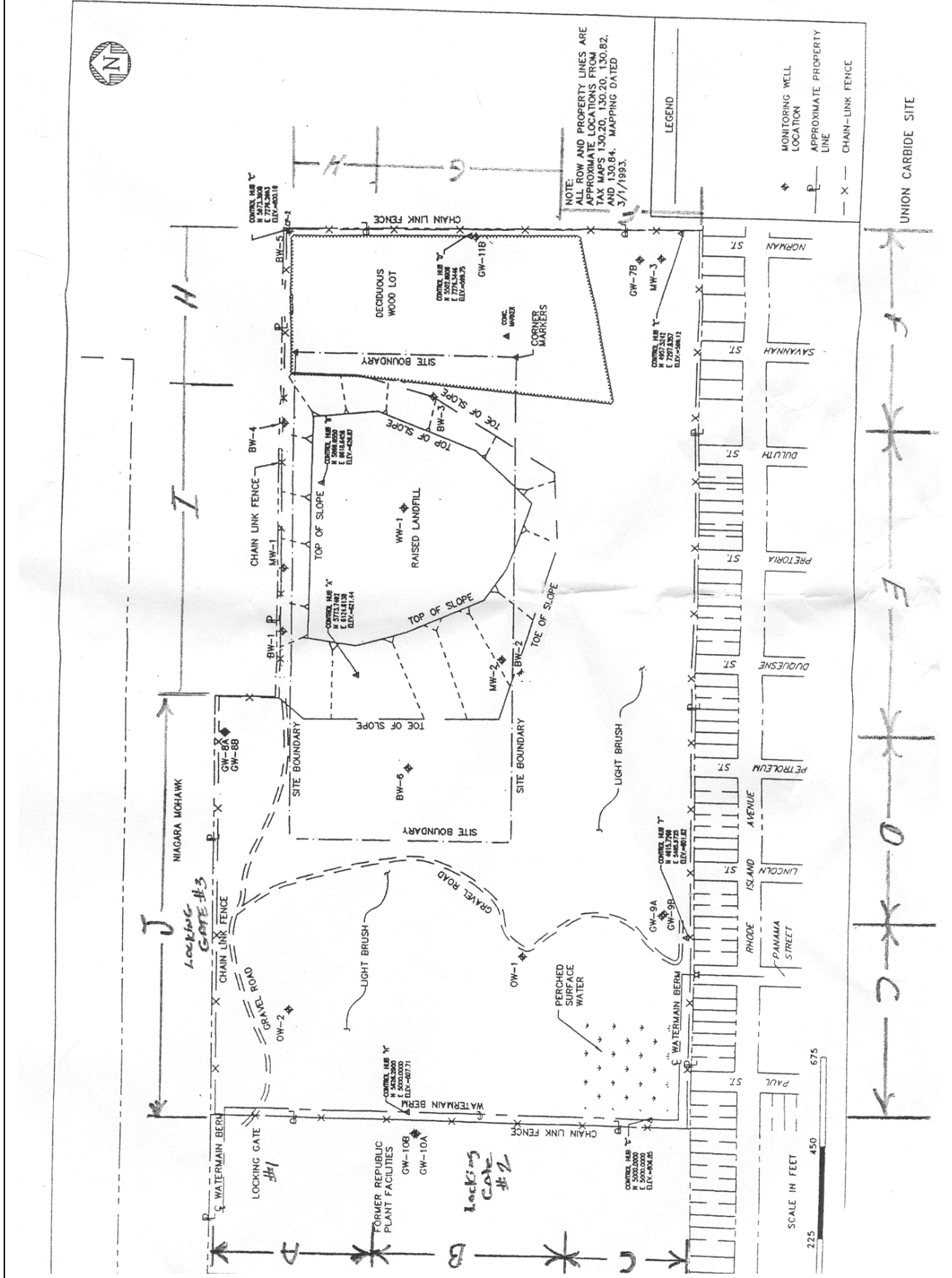


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 AND 130.84, MAPPING DATED  
 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X- CHAIN-LINK FENCE

UNION CARBIDE SITE



# FENCE INSPECTION

## LANDFILL

Date	Time	Inspector
2-09-09	2:45 PM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J	X			

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:**

**WELL INSPECTION**

ID	WELL ID	WELL ID	LOCKED	LOCKED	COMMENTS
	YES	NO	YES	NO	
MW1-78	X				
MW2-78	X				
MW3-79	X				
BW1-86	X				
BW2-86	X				
BW3-86	X				
BW4-86	X				
BW5-86	X				
BW6-86	X				
WW1-86	X				
OW1-88	X				
OW2-88	X				

**NYSDEC WELLS**

**INSTALLED SEPT/OCT 93**

GW7B-93	X				
GW8A-93	X				
GW8B-93	X				
GW9A-93	X				
GW9B-93	X				
GW11B-93	X				

**COMMENTS**

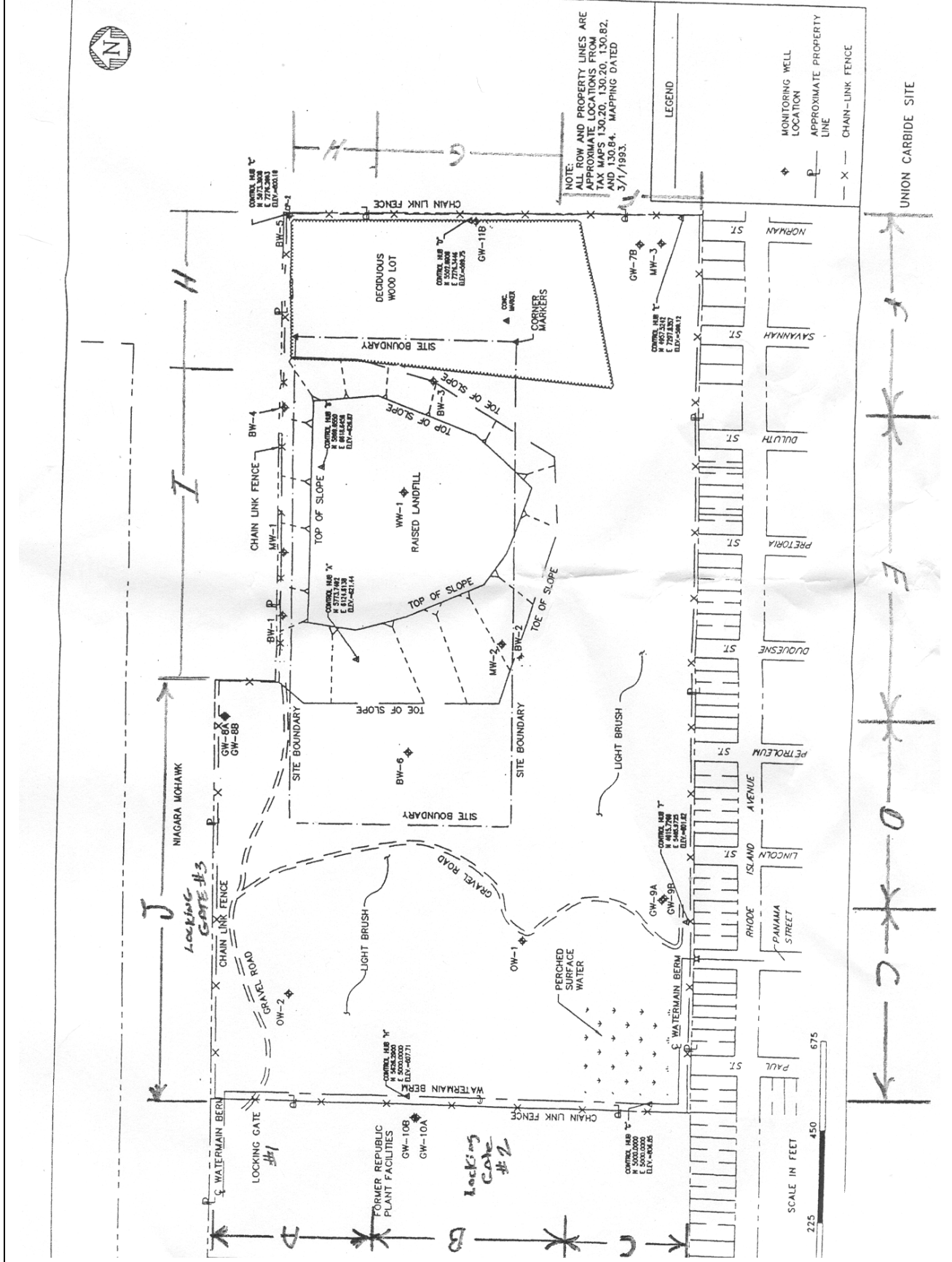


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 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X- CHAIN-LINK FENCE

UNION CARBIDE SITE



SCALE IN FEET  
 225 450 675

## FENCE INSPECTION

### LANDFILL

Date	Time	Inspector
2-16-09	3:15 PM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J		X		Two feet of the ground hole

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:** Piles of dirt and debris was pushed onto to road by cerones bulldozer. Went to company's main office to complain, they said they did not know that the operator had done this. Owner said they would correct problem by this Tuesday. Explained to him that this is a right of way. Hole will be repaired when I can get to it because of conditions to area water.

**WELL INSPECTION**

ID	WELL ID	WELL ID	LOCKED	LOCKED	COMMENTS
	YES	NO	YES	NO	
MW1-78	X				
MW2-78	X				
MW3-79	X				
BW1-86	X				
BW2-86	X				
BW3-86	X				
BW4-86	X				
BW5-86	X				
BW6-86	X				
WW1-86	X				
OW1-88	X				
OW2-88	X				

**NYSDEC WELLS**

**INSTALLED SEPT/OCT 93**

GW7B-93	X				
GW8A-93	X				
GW8B-93	X				
GW9A-93	X				
GW9B-93	X				
GW11B-93	X				

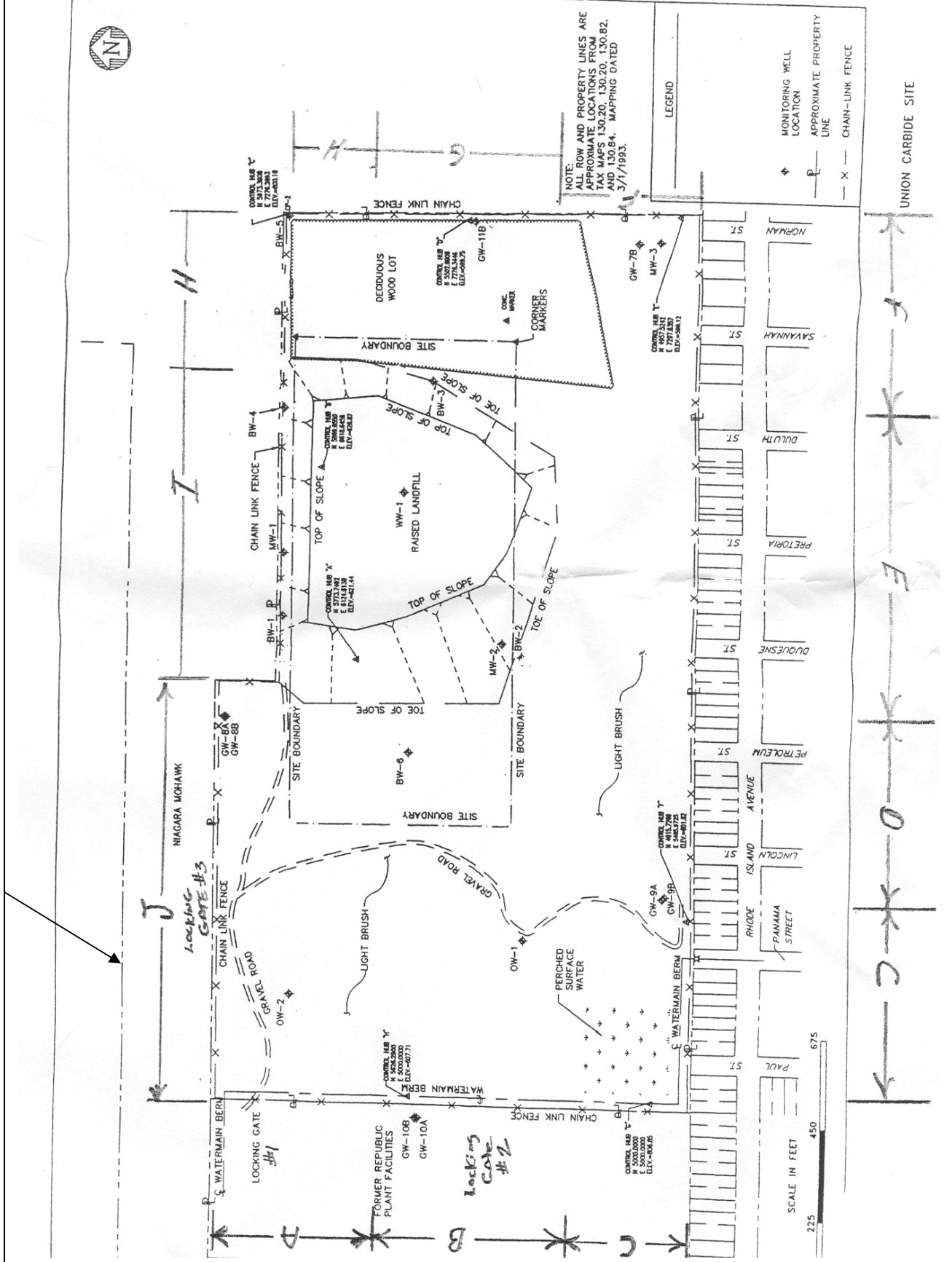
**COMMENTS**



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 AND 130.84, MAPPING DATED  
 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X- CHAIN-LINK FENCE



UNION CARBIDE SITE

SCALE IN FEET  
 225 450 675



## FENCE INSPECTION

### LANDFILL

Date	Time	Inspector
2-25-09	10:35 AM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J		X		Two feet of the ground hole

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:** Problem corrected debris removed and right of way was opened. Hole will be repaired when I can get to it because of conditions to area water.

**WELL INSPECTION**

<b>ID</b>	<b>WELL ID YES</b>	<b>WELL ID NO</b>	<b>LOCKED YES</b>	<b>LOCKED NO</b>	<b>COMMENTS</b>
<b>MW1-78</b>	X				
<b>MW2-78</b>	X				
<b>MW3-79</b>	X				
<b>BW1-86</b>	X				
<b>BW2-86</b>	X				
<b>BW3-86</b>	X				
<b>BW4-86</b>	X				
<b>BW5-86</b>	X				
<b>BW6-86</b>	X				
<b>WW1-86</b>	X				
<b>OW1-88</b>	X				
<b>OW2-88</b>	X				

**NYSDEC WELLS**

**INSTALLED SEPT/OCT 93**

<b>GW7B-93</b>	X				
<b>GW8A-93</b>	X				
<b>GW8B-93</b>	X				
<b>GW9A-93</b>	X				
<b>GW9B-93</b>	X				
<b>GW11B-93</b>	X				

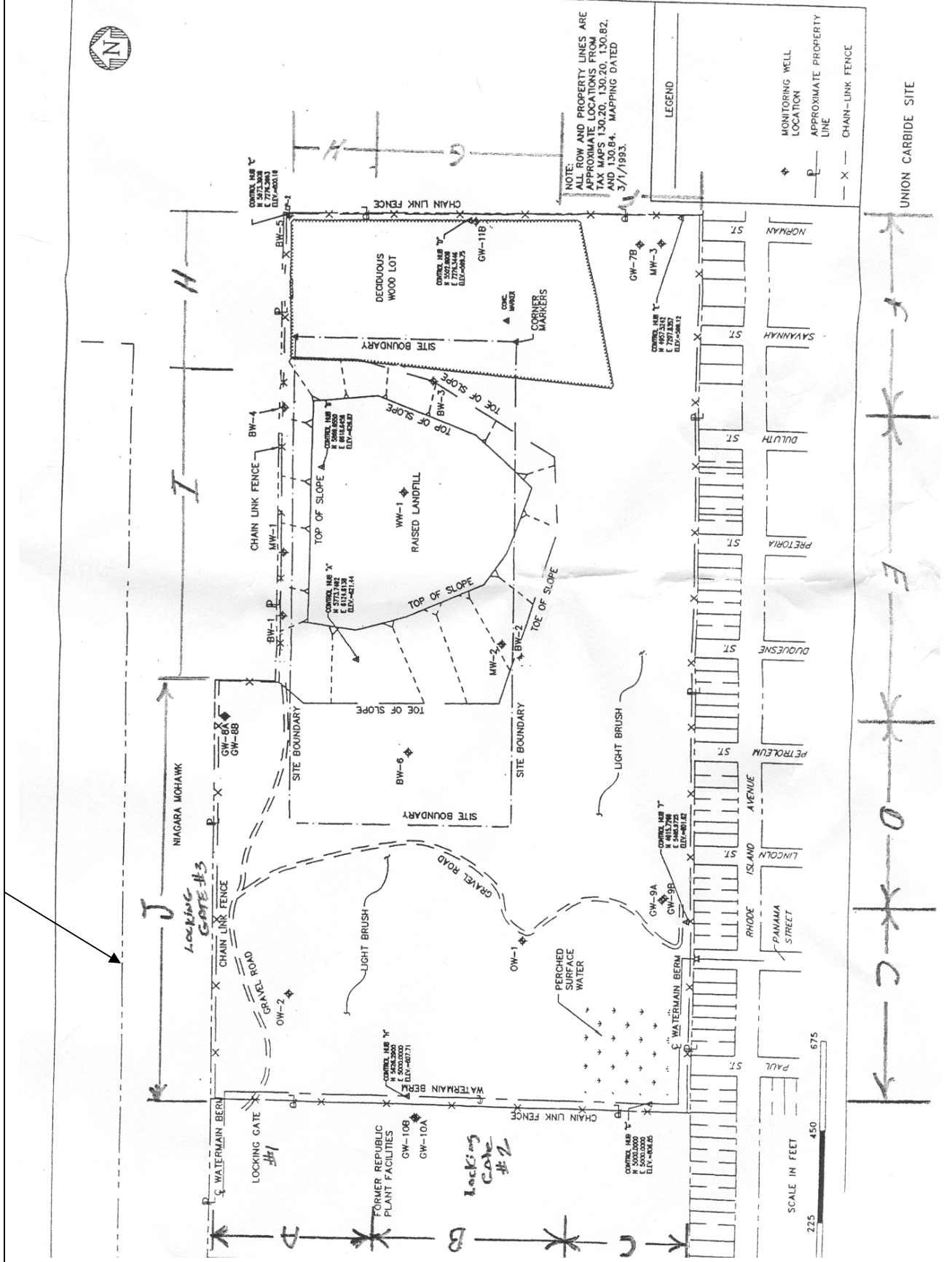
**COMMENTS**



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 AND 130.84, MAPPING DATED  
 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X- CHAIN-LINK FENCE



UNION CARBIDE SITE

SCALE IN FEET  
 225 450 675

# FENCE INSPECTION

## LANDFILL

Date	Time	Inspector
3-06-09	11:24 AM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J		X		Two feet of the ground hole

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:** Hole will be repaired when I can get to it because of conditions to area water.

**WELL INSPECTION**

<b>ID</b>	<b>WELL ID YES</b>	<b>WELL ID NO</b>	<b>LOCKED YES</b>	<b>LOCKED NO</b>	<b>COMMENTS</b>
<b>MW1-78</b>	X				
<b>MW2-78</b>	X				
<b>MW3-79</b>	X				
<b>BW1-86</b>	X				
<b>BW2-86</b>	X				
<b>BW3-86</b>	X				
<b>BW4-86</b>	X				
<b>BW5-86</b>	X				
<b>BW6-86</b>	X				
<b>WW1-86</b>	X				
<b>OW1-88</b>	X				
<b>OW2-88</b>	X				

**NYSDEC WELLS**

**INSTALLED SEPT/OCT 93**

<b>GW7B-93</b>	X				
<b>GW8A-93</b>	X				
<b>GW8B-93</b>	X				
<b>GW9A-93</b>	X				
<b>GW9B-93</b>	X				
<b>GW11B-93</b>	X				

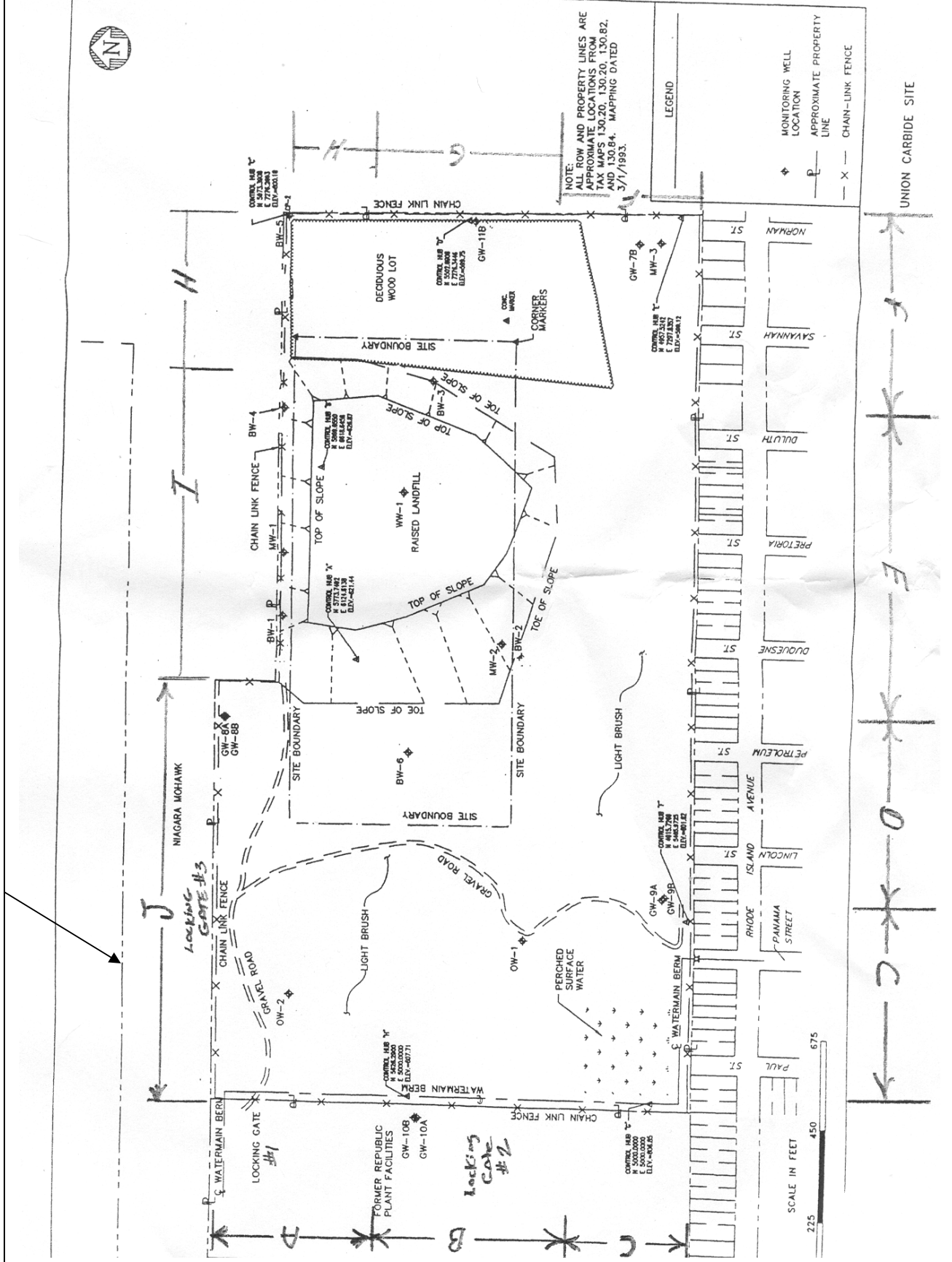
**COMMENTS**



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 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X- CHAIN-LINK FENCE



UNION CARBIDE SITE

SCALE IN FEET  
 225 450 675

# FENCE INSPECTION

## LANDFILL

Date	Time	Inspector
3-12-09	10:07 AM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J		X		Two feet of the ground hole

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:** Hole will be repaired when I can get to it because of conditions to area water.

**WELL INSPECTION**

ID	WELL ID	WELL ID	LOCKED	LOCKED	COMMENTS
	YES	NO	YES	NO	
MW1-78	X				
MW2-78	X				
MW3-79	X				
BW1-86	X				
BW2-86	X				
BW3-86	X				
BW4-86	X				
BW5-86	X				
BW6-86	X				
WW1-86	X				
OW1-88	X				
OW2-88	X				

**NYSDEC WELLS**

**INSTALLED SEPT/OCT 93**

GW7B-93	X				
GW8A-93	X				
GW8B-93	X				
GW9A-93	X				
GW9B-93	X				
GW11B-93	X				

**COMMENTS**

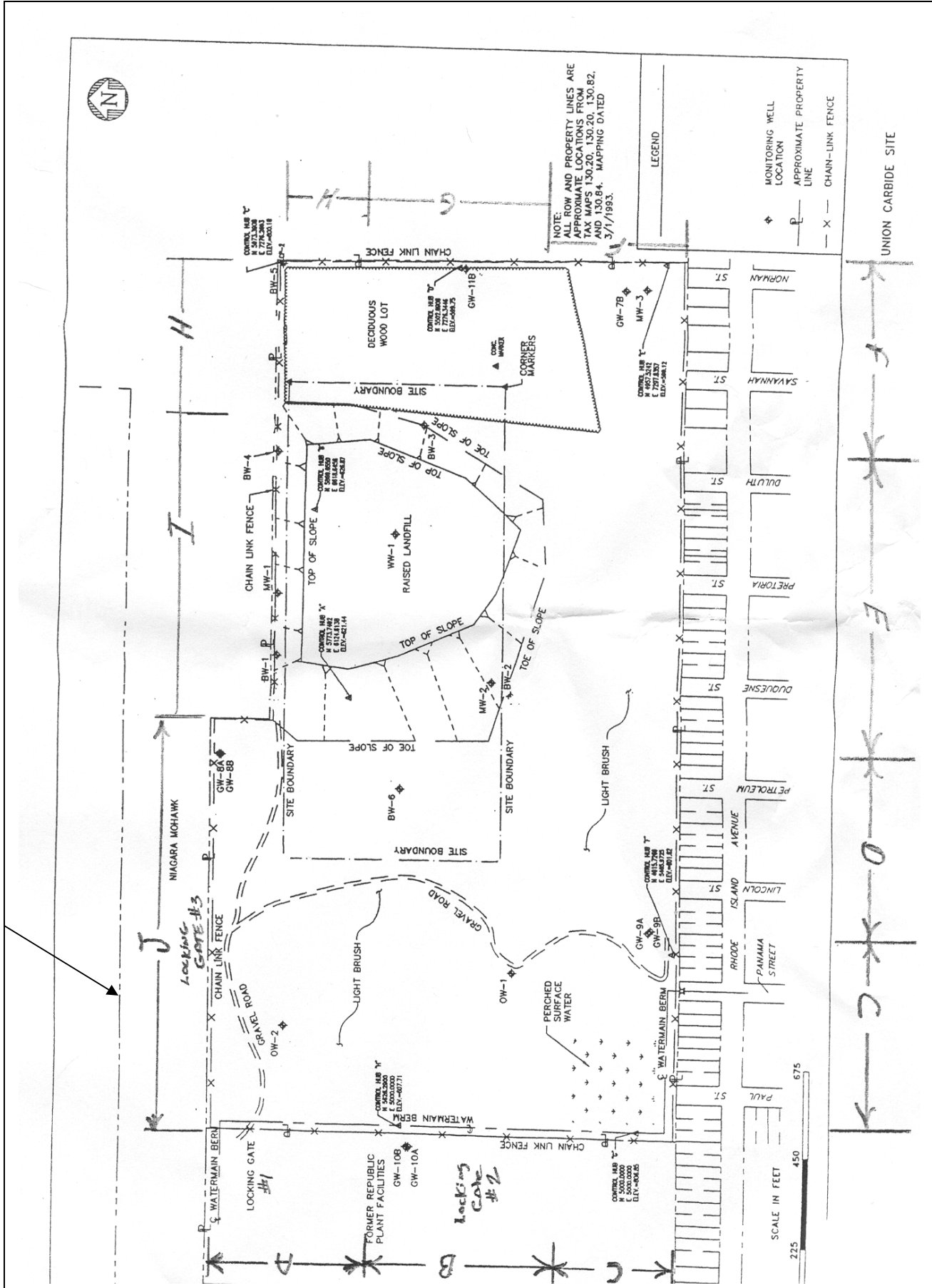




NOTE:  
 ALL ROW AND PROPERTY LINES ARE  
 APPROXIMATE LOCATIONS FROM  
 TAX MAPS 130.20, 130.20, 130.82,  
 AND 130.84, MAPPING DATED  
 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X- CHAIN-LINK FENCE



UNION CARBIDE SITE

SCALE IN FEET  
 225 450 675

# FENCE INSPECTION

## LANDFILL

Date	Time	Inspector
3-17-09	1:25 PM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J		X		Two feet of the ground hole

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:** Hole will be repaired when I can get to it because of conditions to area water.

**WELL INSPECTION**

ID	WELL ID	WELL ID	LOCKED	LOCKED	COMMENTS
	YES	NO	YES	NO	
MW1-78	X				
MW2-78	X				
MW3-79	X				
BW1-86	X				
BW2-86	X				
BW3-86	X				
BW4-86	X				
BW5-86	X				
BW6-86	X				
WW1-86	X				
OW1-88	X				
OW2-88	X				

**NYSDEC WELLS**

**INSTALLED SEPT/OCT 93**

<b>GW7B-93</b>	X				
<b>GW8A-93</b>	X				
<b>GW8B-93</b>	X				
<b>GW9A-93</b>	X				
<b>GW9B-93</b>	X				
<b>GW11B-93</b>	X				

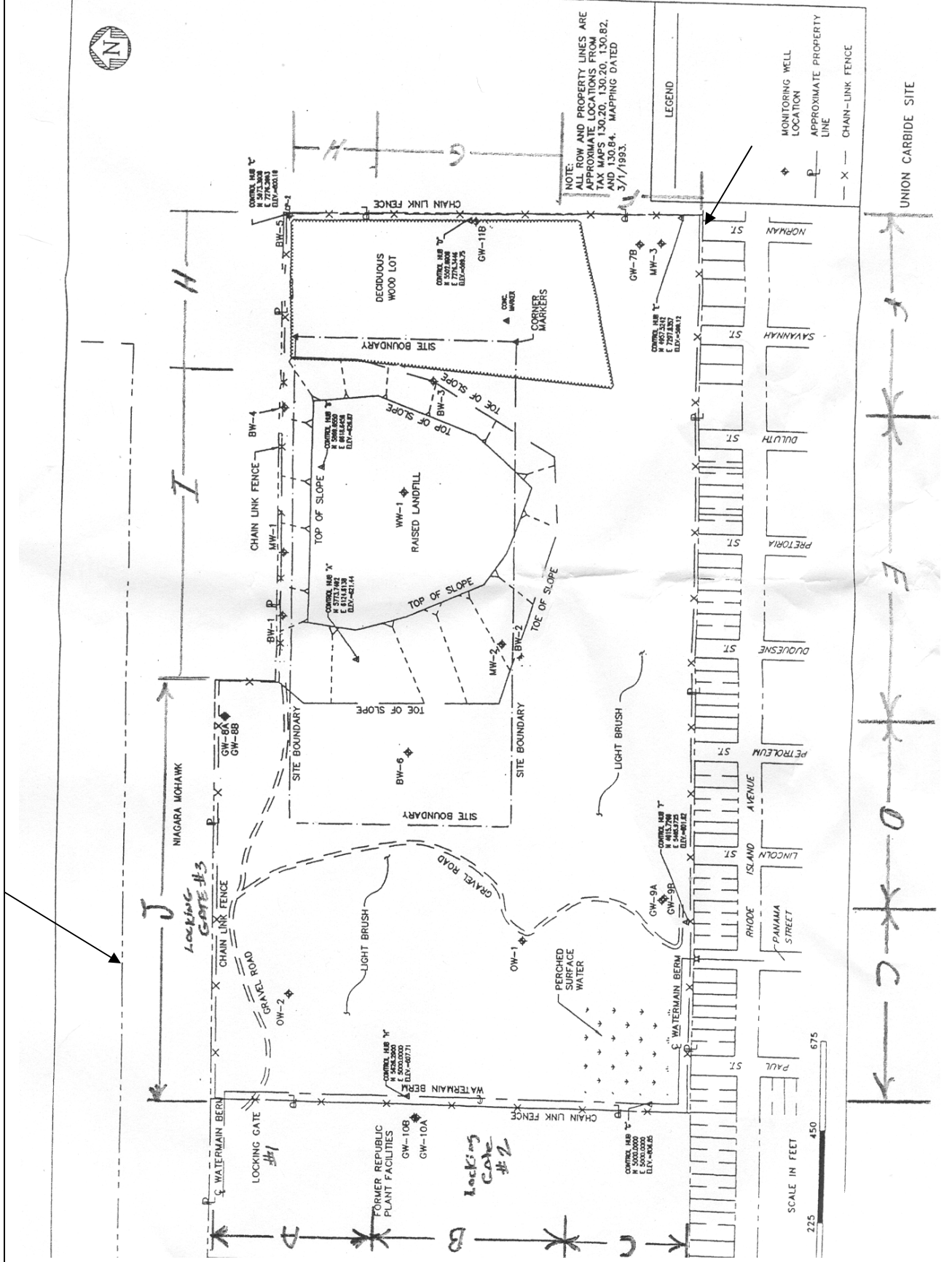
**COMMENTS**



NOTE:  
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 TAX MAPS 130.20, 130.20, 130.82,  
 AND 130.84, MAPPING DATED  
 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X- CHAIN-LINK FENCE



UNION CARBIDE SITE

SCALE IN FEET  
 225 450 675

# FENCE INSPECTION

## LANDFILL

Date	Time	Inspector
3-25-09	8:20 AM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J		X		Two feet of the ground hole

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:** Hole will be repaired when I can get to it because of conditions to area water.

**WELL INSPECTION**

ID	WELL ID	WELL ID	LOCKED	LOCKED	COMMENTS
	YES	NO	YES	NO	
MW1-78	X				
MW2-78	X				
MW3-79	X				
BW1-86	X				
BW2-86	X				
BW3-86	X				
BW4-86	X				
BW5-86	X				
BW6-86	X				
WW1-86	X				
OW1-88	X				
OW2-88	X				

**NYSDEC WELLS**

**INSTALLED SEPT/OCT 93**

GW7B-93	X				
GW8A-93	X				
GW8B-93	X				
GW9A-93	X				
GW9B-93	X				
GW11B-93	X				

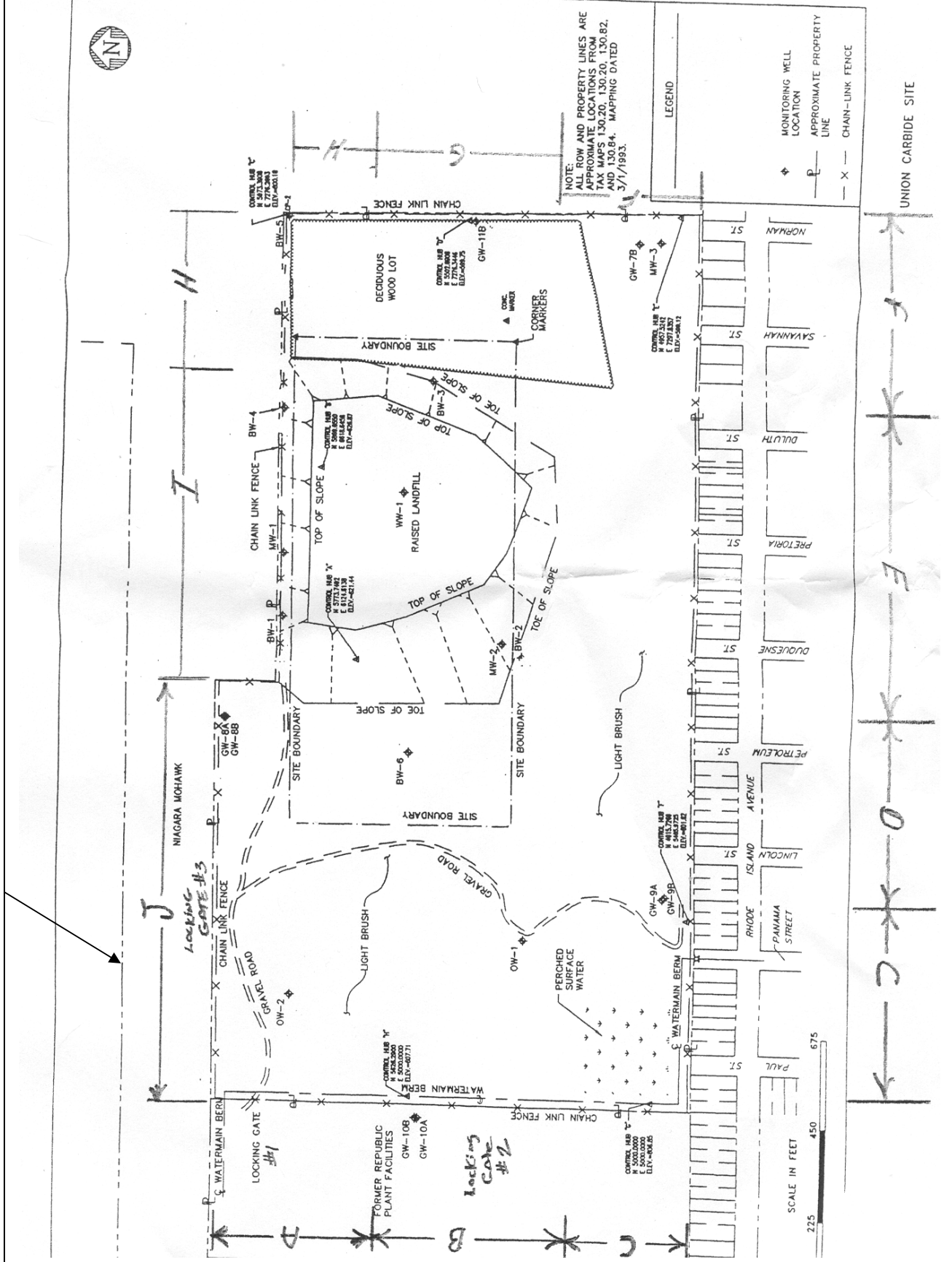
**COMMENTS**



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 APPROXIMATE LOCATIONS FROM  
 TAX MAPS 130.20, 130.20, 130.82,  
 AND 130.84, MAPPING DATED  
 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X- CHAIN-LINK FENCE



UNION CARBIDE SITE

SCALE IN FEET  
 225 450 675

# FENCE INSPECTION

## LANDFILL

Date	Time	Inspector
4-2-09	3:07 PM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J		X		Two feet of the ground hole

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:** Hole will be repaired when I can get to it because of conditions to area water.



**WELL INSPECTION**

<b>ID</b>	<b>WELL ID YES</b>	<b>WELL ID NO</b>	<b>LOCKED YES</b>	<b>LOCKED NO</b>	<b>COMMENTS</b>
<b>MW1-78</b>	X				
<b>MW2-78</b>	X				
<b>MW3-79</b>	X				
<b>BW1-86</b>	X				
<b>BW2-86</b>	X				
<b>BW3-86</b>	X				
<b>BW4-86</b>	X				
<b>BW5-86</b>	X				
<b>BW6-86</b>	X				
<b>WW1-86</b>	X				
<b>OW1-88</b>	X				
<b>OW2-88</b>	X				

**NYSDEC WELLS**

**INSTALLED SEPT/OCT 93**

<b>GW7B-93</b>	X				
<b>GW8A-93</b>	X				
<b>GW8B-93</b>	X				
<b>GW9A-93</b>	X				
<b>GW9B-93</b>	X				
<b>GW11B-93</b>	X				

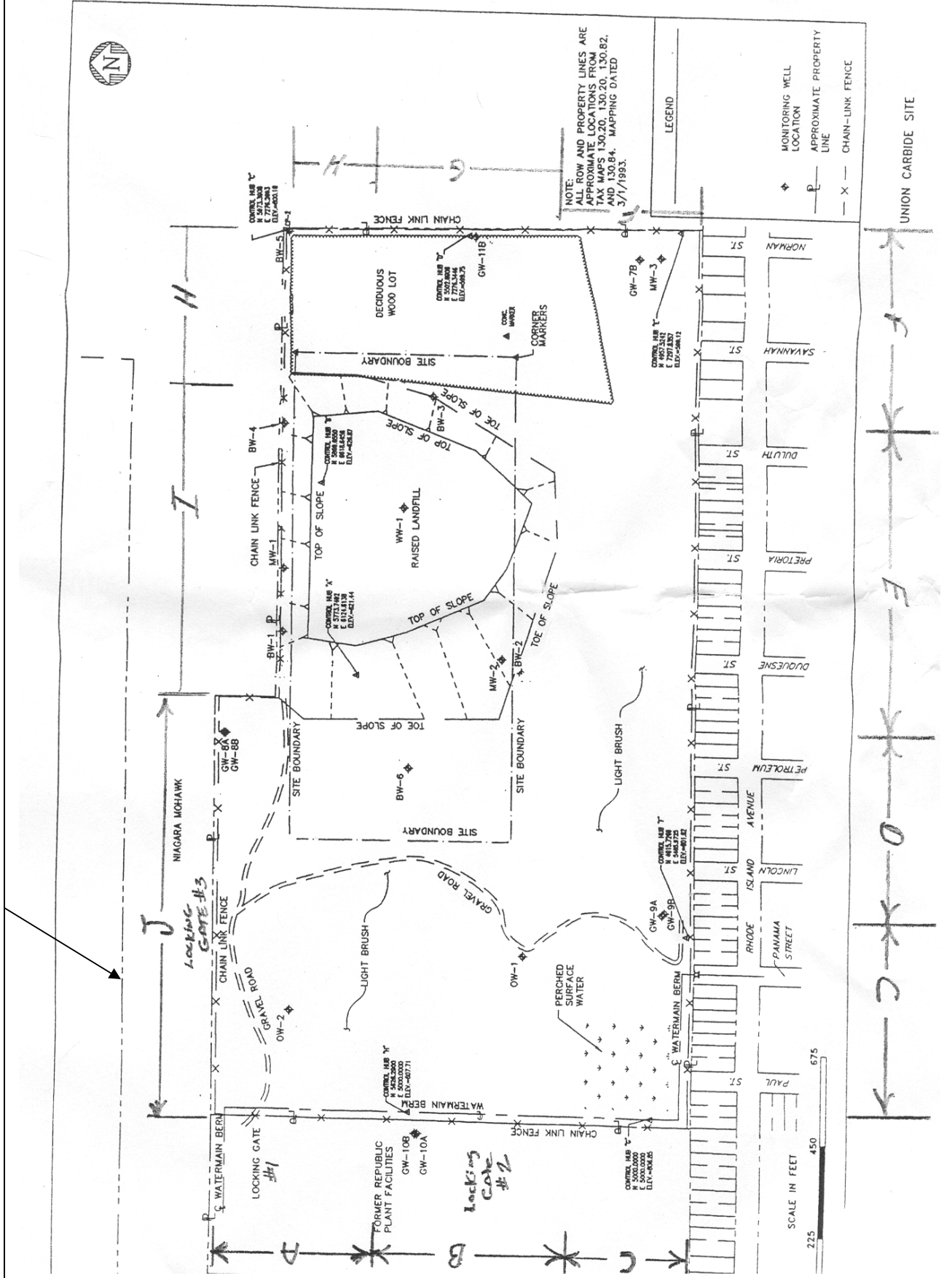
**COMMENTS**



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 AND 130.84, MAPPING DATED  
 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- - - CHAIN-LINK FENCE



UNION CARBIDE SITE

SCALE IN FEET  
 225 450 675

# FENCE INSPECTION

## LANDFILL

Date	Time	Inspector
4-7-09	3:45 PM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J		X		Two feet of the ground hole

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:** Hole will be repaired when I can get to it because of conditions to area water.

**WELL INSPECTION**

ID	WELL ID	WELL ID	LOCKED	LOCKED	COMMENTS
	YES	NO	YES	NO	
MW1-78	X				
MW2-78	X				
MW3-79	X				
BW1-86	X				
BW2-86	X				
BW3-86	X				
BW4-86	X				
BW5-86	X				
BW6-86	X				
WW1-86	X				
OW1-88	X				
OW2-88	X				

**NYSDEC WELLS**

**INSTALLED SEPT/OCT 93**

GW7B-93	X				
GW8A-93	X				
GW8B-93	X				
GW9A-93	X				
GW9B-93	X				
GW11B-93	X				

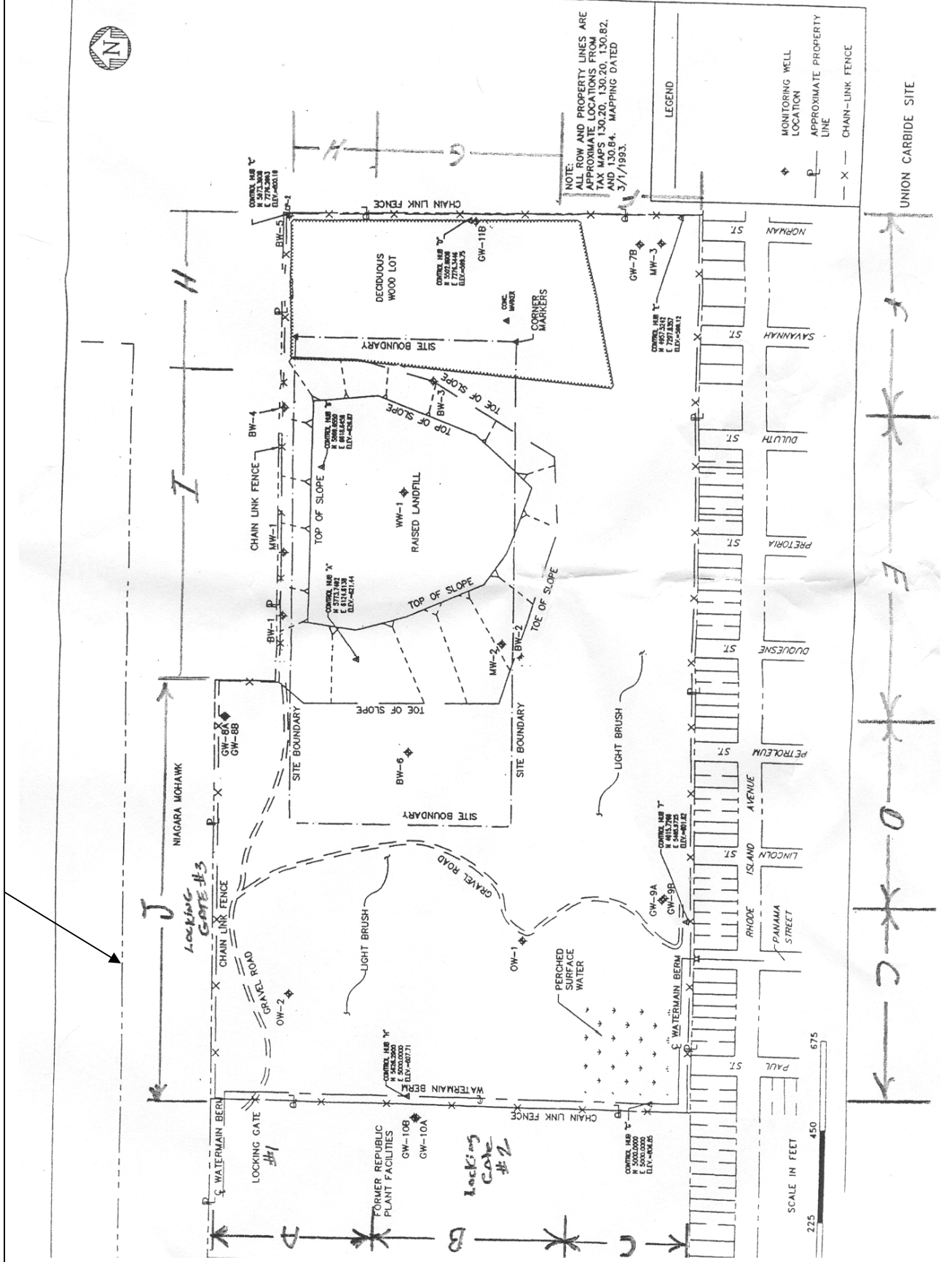
**COMMENTS**



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 AND 130.84, MAPPING DATED  
 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X- CHAIN-LINK FENCE



UNION CARBIDE SITE

SCALE IN FEET  
 225 450 675

# FENCE INSPECTION

## LANDFILL

Date	Time	Inspector
4-25-09	1:15 PM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J	X			

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:**

### WELL INSPECTION

ID	WELL ID	WELL ID	LOCKED	LOCKED	COMMENTS
	YES	NO	YES	NO	
MW1-78	X				
MW2-78	X				
MW3-79	X				
BW1-86	X				
BW2-86	X				
BW3-86	X				
BW4-86	X				
BW5-86	X				
BW6-86	X				
WW1-86	X				
OW1-88	X				
OW2-88	X				

### NYSDEC WELLS

INSTALLED SEPT/OCT 93

GW7B-93	X				
GW8A-93	X				
GW8B-93	X				
GW9A-93	X				
GW9B-93	X				
GW11B-93	X				

COMMENTS

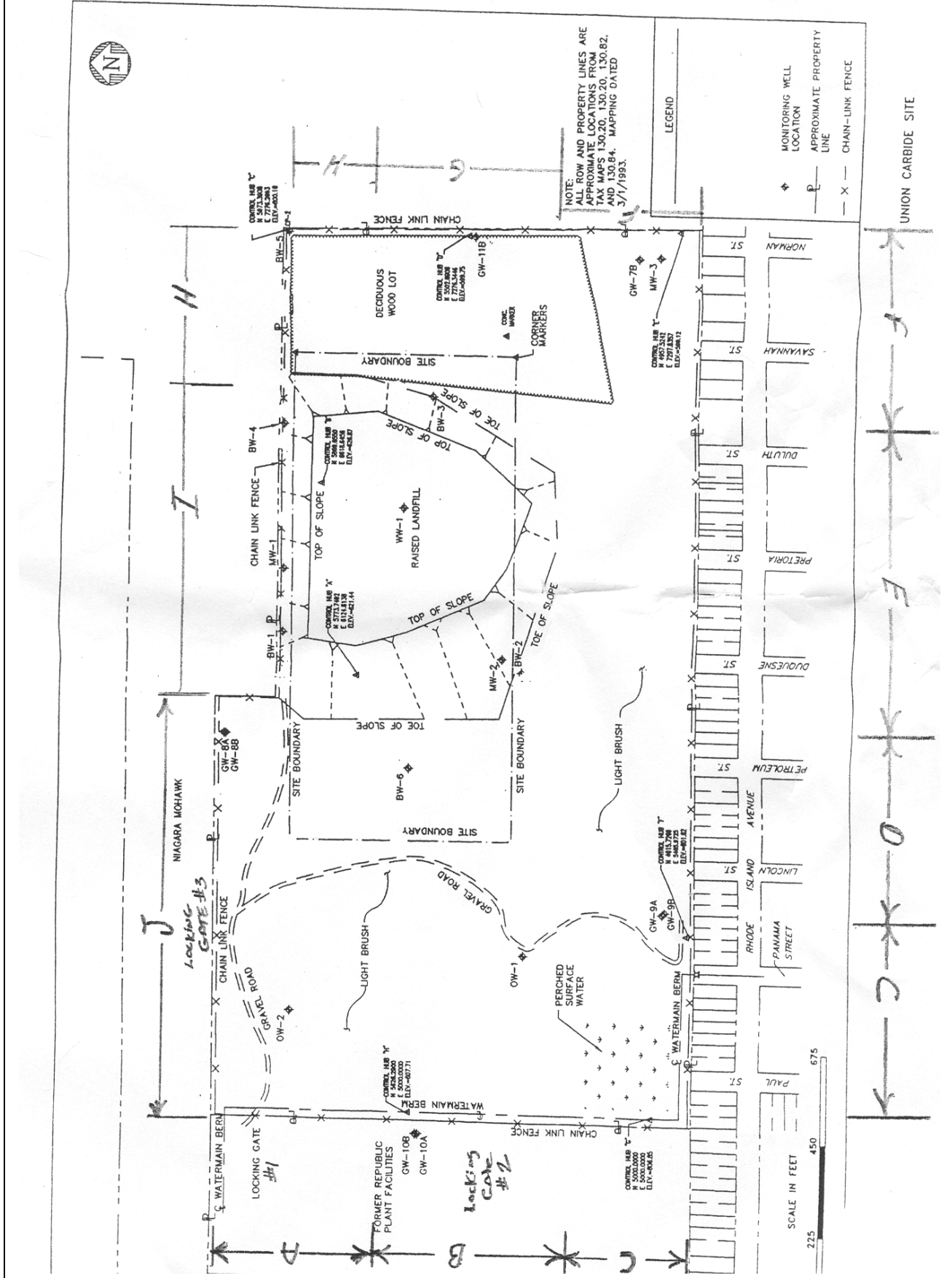


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 APPROXIMATE LOCATIONS FROM  
 TAX MAPS 130.20, 130.20, 130.82,  
 AND 130.84, MAPPING DATED  
 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X- CHAIN-LINK FENCE

UNION CARBIDE SITE



SCALE IN FEET  
 225 450 675



# FENCE INSPECTION

## LANDFILL

Date	Time	Inspector
4-28-09	2:15 PM	R. Bucci & T. Jacques

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J	X			

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:**

**WELL INSPECTION**

ID	WELL ID	WELL ID	LOCKED	LOCKED	COMMENTS
	YES	NO	YES	NO	
MW1-78	X				
MW2-78	X				
MW3-79	X				
BW1-86	X				
BW2-86	X				
BW3-86	X				
BW4-86	X				
BW5-86	X				
BW6-86	X				
WW1-86	X				
OW1-88	X				
OW2-88	X				

**NYSDEC WELLS**

**INSTALLED SEPT/OCT 93**

GW7B-93	X				
GW8A-93	X				
GW8B-93	X				
GW9A-93	X				
GW9B-93	X				
GW11B-93	X				

**COMMENTS**

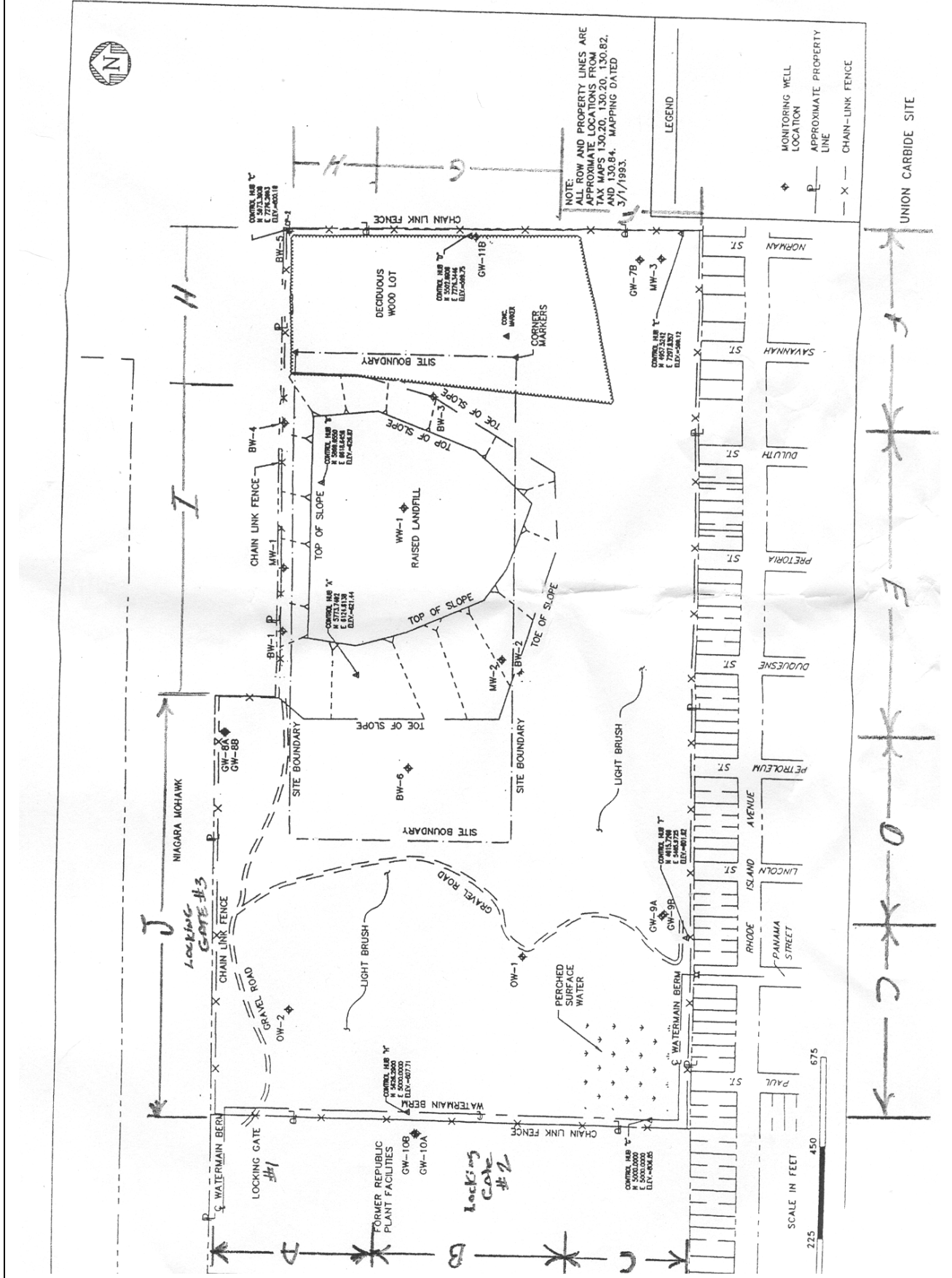


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 AND 130.84, MAPPING DATED  
 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X- CHAIN-LINK FENCE

UNION CARBIDE SITE



## INSPECTION OF LANFILL FENCE & CAP & SURROUNDING AREA

<b>Date</b>	<b>Time</b>	<b>Inspector</b>
5-2-09	3:15 PM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J		X		Two foot hole from ground

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:**

**CAP CONDITION COMMENTS: ( Checking for erosion)      No Problems**

**SUROUNING AREA:      No Problems**

**WELL INSPECTION**

ID	WELL ID	WELL ID	LOCKED	LOCKED	COMMENTS
	YES	NO	YES	NO	
MW1-78	X				
MW2-78	X				
MW3-79	X				
BW1-86	X				
BW2-86	X				
BW3-86	X				
BW4-86	X				
BW5-86	X				
BW6-86	X				
WW1-86	X				
OW1-88	X				
OW2-88	X				

**NYSDEC WELLS**

**INSTALLED SEPT/OCT 93**

GW7B-93	X				
GW8A-93	X				
GW8B-93	X				
GW9A-93	X				
GW9B-93	X				
GW11B-93	X				

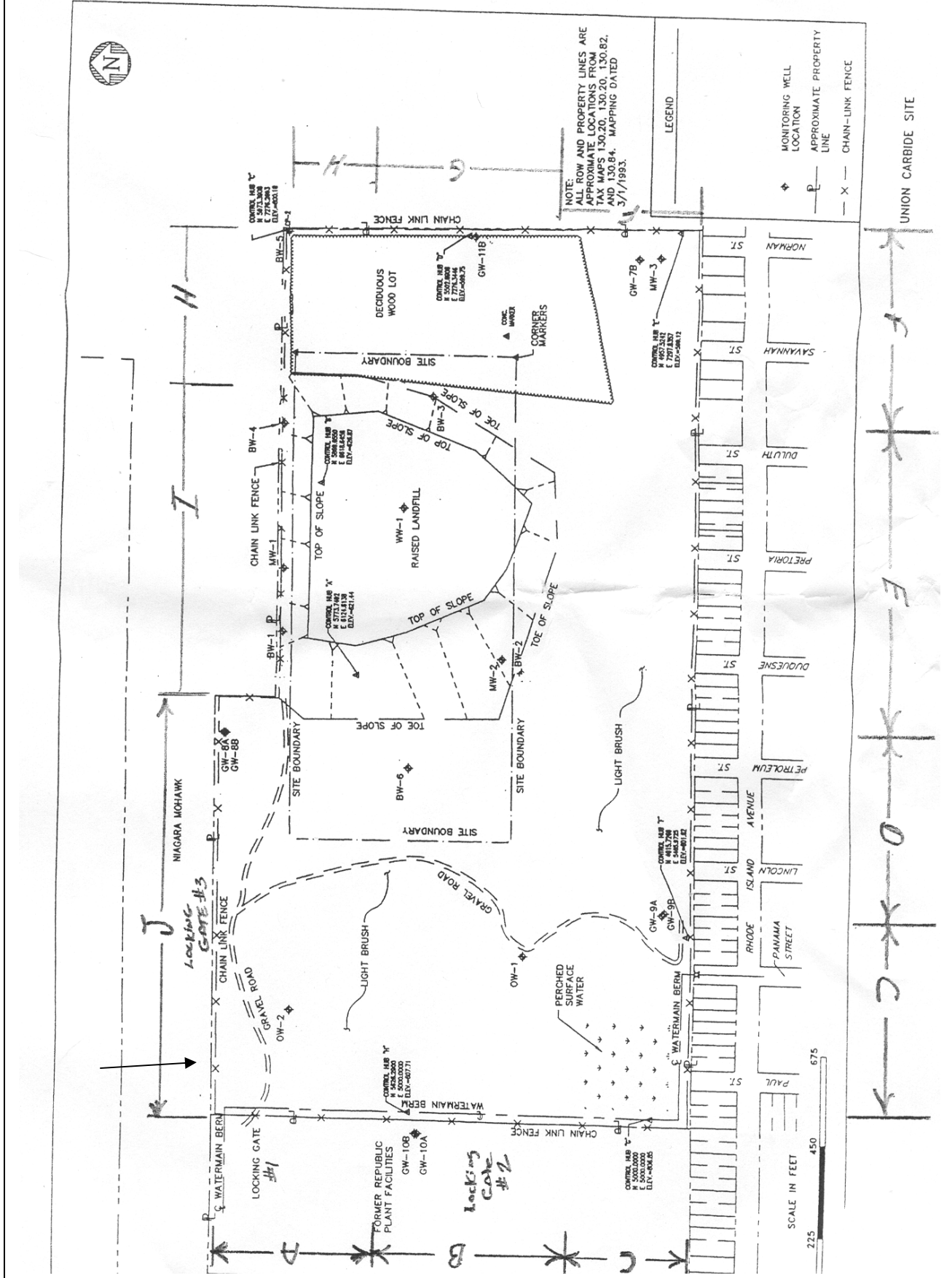
**COMMENTS**



NOTE:  
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 TAX MAPS 130.20, 130.20, 130.82,  
 AND 130.84, MAPPING DATED  
 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X- CHAIN-LINK FENCE



SCALE IN FEET  
 225 450 675

UNION CARBIDE SITE

## INSPECTION OF LANFILL FENCE & CAP & SURROUNDING AREA

<b>Date</b>	<b>Time</b>	<b>Inspector</b>
5-8-09	3:15 PM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J		X		Two foot hole from ground

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:** 3 Large sheets of plywood need to be removed

**CAP CONDITION COMMENTS:** ( Checking for erosion)      No Problems

**SUROUNING AREA:**      No Problems

**WELL INSPECTION**

<b>ID</b>	<b>WELL ID YES</b>	<b>WELL ID NO</b>	<b>LOCKED YES</b>	<b>LOCKED NO</b>	<b>COMMENTS</b>
<b>MW1-78</b>	X				
<b>MW2-78</b>	X				
<b>MW3-79</b>	X				
<b>BW1-86</b>	X				
<b>BW2-86</b>	X				
<b>BW3-86</b>	X				
<b>BW4-86</b>	X				
<b>BW5-86</b>	X				
<b>BW6-86</b>	X				
<b>WW1-86</b>	X				
<b>OW1-88</b>	X				
<b>OW2-88</b>	X				

**NYSDEC WELLS**

**INSTALLED SEPT/OCT 93**

<b>GW7B-93</b>	X				
<b>GW8A-93</b>	X				
<b>GW8B-93</b>	X				
<b>GW9A-93</b>	X				
<b>GW9B-93</b>	X				
<b>GW11B-93</b>	X				

**COMMENTS**

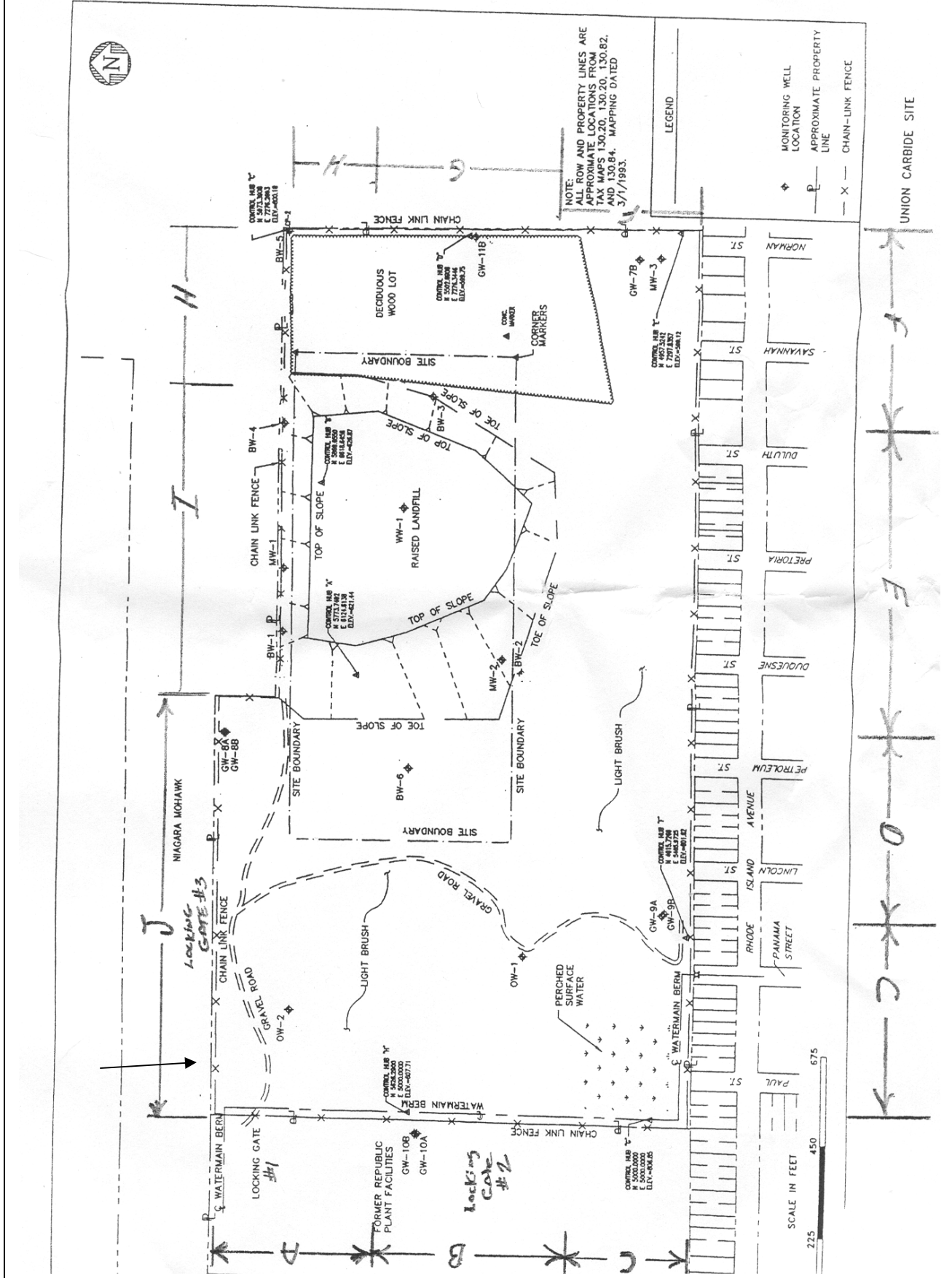




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 AND 130.84, MAPPING DATED  
 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X- CHAIN-LINK FENCE



UNION CARBIDE SITE

SCALE IN FEET  
 225 450 675

## INSPECTION OF LANFILL FENCE & CAP & SURROUNDING AREA

Date	Time	Inspector
5-15-09	1:45 PM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J		X		Two foot hole from ground

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:** 3 Large sheets of plywood need to be removed

**CAP CONDITION COMMENTS:** ( Checking for erosion)      No Problems

**SUROUNING AREA:**      No Problems

**WELL INSPECTION**

ID	WELL ID	WELL ID	LOCKED	LOCKED	COMMENTS
	YES	NO	YES	NO	
MW1-78	X				
MW2-78	X				
MW3-79	X				
BW1-86	X				
BW2-86	X				
BW3-86	X				
BW4-86	X				
BW5-86	X				
BW6-86	X				
WW1-86	X				
OW1-88	X				
OW2-88	X				

**NYSDEC WELLS**

**INSTALLED SEPT/OCT 93**

GW7B-93	X				
GW8A-93	X				
GW8B-93	X				
GW9A-93	X				
GW9B-93	X				
GW11B-93	X				

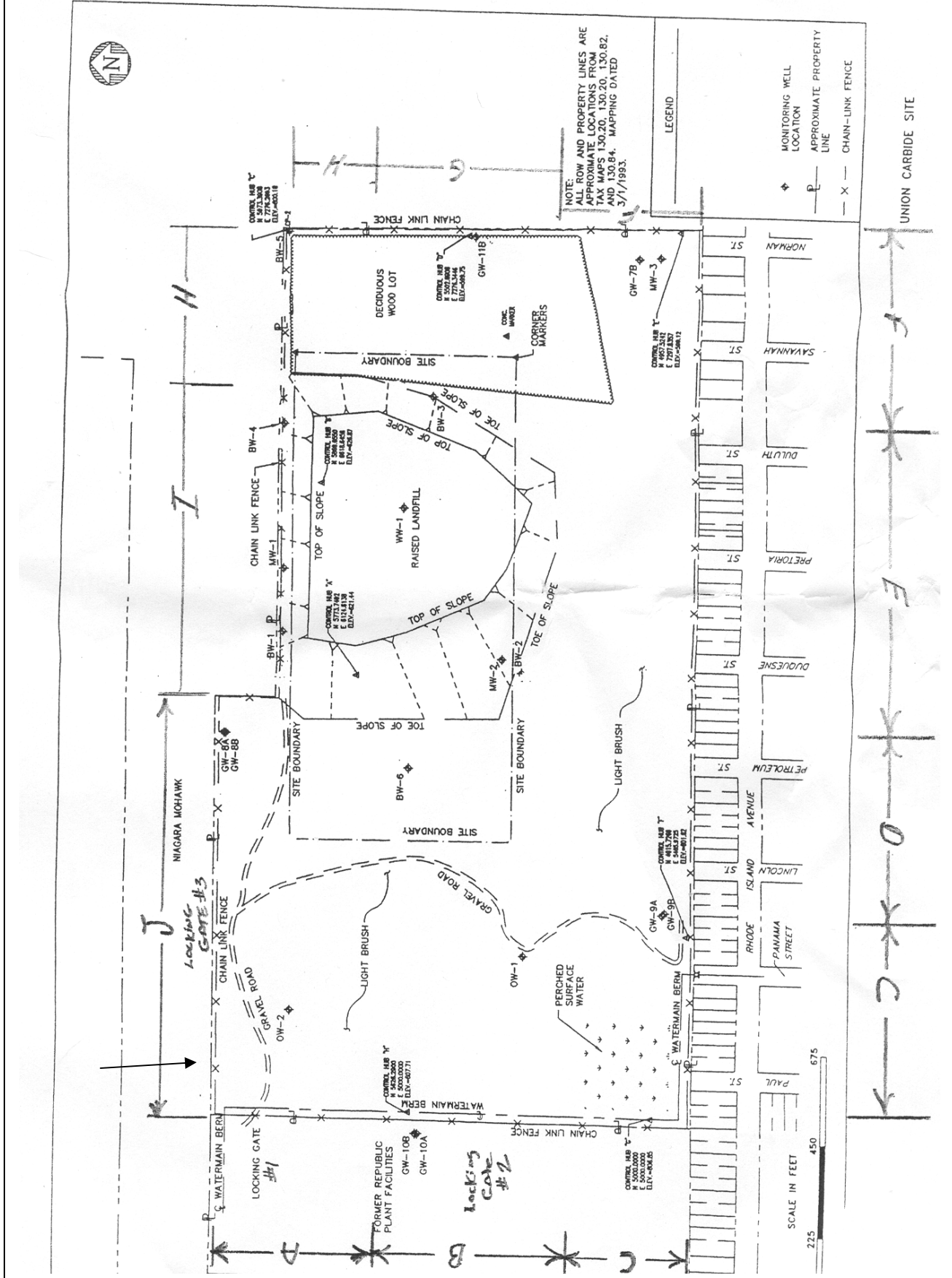
**COMMENTS**



NOTE:  
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APPROXIMATE LOCATIONS FROM  
TAX MAPS 130.20, 130.20, 130.82,  
AND 130.84. MAPPING DATED  
5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X - CHAIN-LINK FENCE



UNION CARBIDE SITE

SCALE IN FEET  
225 450 675

## INSPECTION OF LANFILL FENCE & CAP & SURROUNDING AREA

Date	Time	Inspector
5-21-09	3:12 PM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
<b>A</b>	X			
<b>B</b>	X			
<b>C</b>	X			
<b>D</b>		X	5/28	Large hole behind Rhode Island Home
<b>E</b>	X			
<b>F</b>	X			
<b>G</b>	X			
<b>H</b>	X			
<b>I</b>	X			
<b>J</b>		X	5/28/09	Two foot hole from ground

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
<b>1</b>	X			
<b>2</b>	X			
<b>3</b>	X			

**COMMENTS:** Holes will be fixed this week, 6 sheets of plywood removed.

**CAP CONDITION COMMENTS:** ( Checking for erosion)      No Problems

**SUROUNING AREA: No Problems**

**WELL INSPECTION**

<b>ID</b>	<b>WELL ID YES</b>	<b>WELL ID NO</b>	<b>LOCKED YES</b>	<b>LOCKED NO</b>	<b>COMMENTS</b>
<b>MW1-78</b>	X				
<b>MW2-78</b>	X				
<b>MW3-79</b>	X				
<b>BW1-86</b>	X				
<b>BW2-86</b>	X				
<b>BW3-86</b>	X				
<b>BW4-86</b>	X				
<b>BW5-86</b>	X				
<b>BW6-86</b>	X				
<b>WW1-86</b>	X				
<b>OW1-88</b>	X				
<b>OW2-88</b>	X				

**NYSDEC WELLS**

**INSTALLED SEPT/OCT 93**

<b>GW7B-93</b>	X				
<b>GW8A-93</b>	X				
<b>GW8B-93</b>	X				
<b>GW9A-93</b>	X				
<b>GW9B-93</b>	X				
<b>GW11B-93</b>	X				

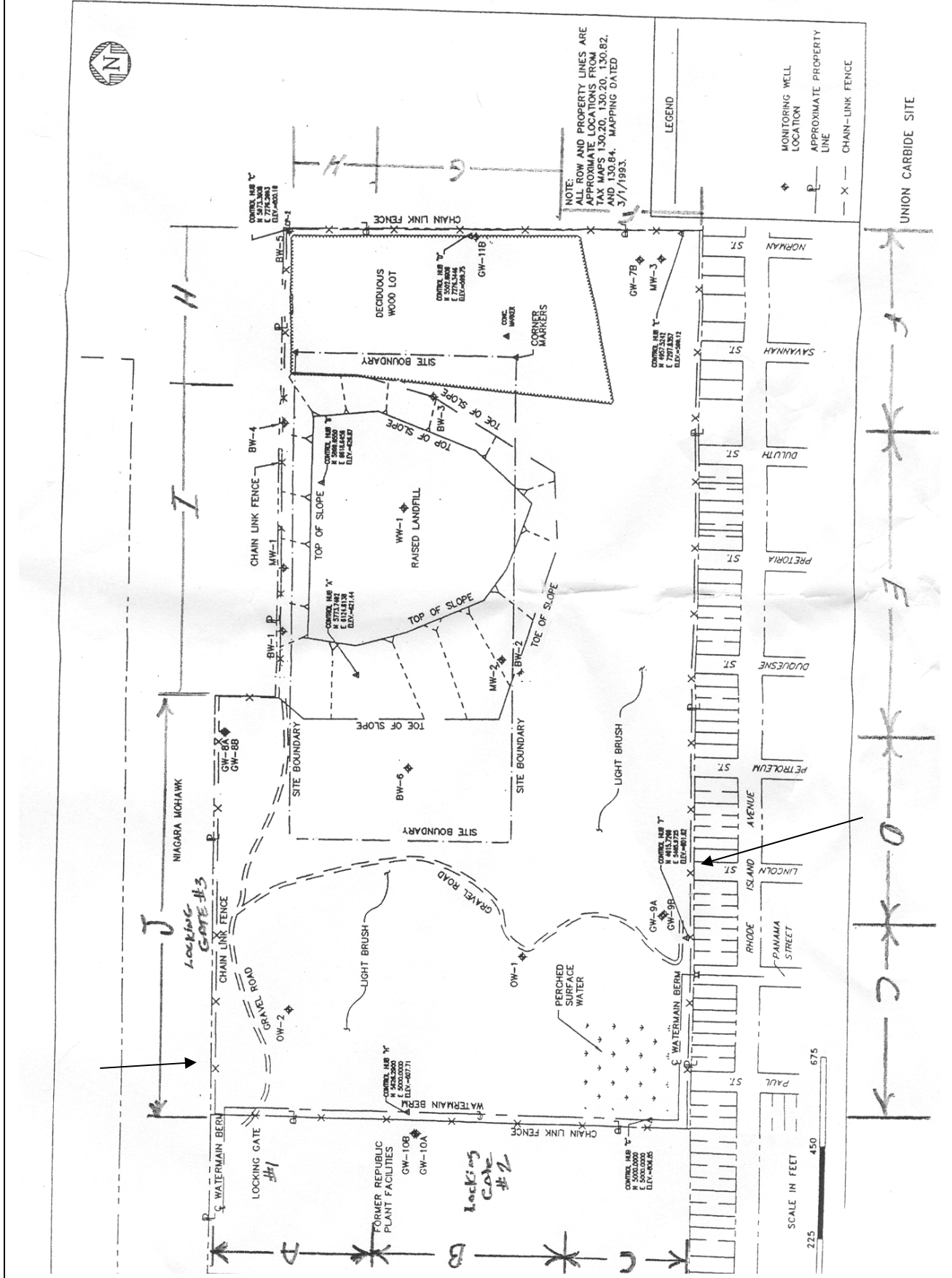
**COMMENTS**



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 AND 130.84, MAPPING DATED  
 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X- CHAIN-LINK FENCE



UNION CARBIDE SITE

## INSPECTION OF LANFILL FENCE & CAP & SURROUNDING AREA

Date	Time	Inspector
5-28-09	1:17 PM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J	X			

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:**

**CAP CONDITION COMMENTS: ( Checking for erosion)      No Problems**



**SUROUNING AREA: No Problems**

**WELL INSPECTION**

<b>ID</b>	<b>WELL ID YES</b>	<b>WELL ID NO</b>	<b>LOCKED YES</b>	<b>LOCKED NO</b>	<b>COMMENTS</b>
<b>MW1-78</b>	X				
<b>MW2-78</b>	X				
<b>MW3-79</b>	X				
<b>BW1-86</b>	X				
<b>BW2-86</b>	X				
<b>BW3-86</b>	X				
<b>BW4-86</b>	X				
<b>BW5-86</b>	X				
<b>BW6-86</b>	X				
<b>WW1-86</b>	X				
<b>OW1-88</b>	X				
<b>OW2-88</b>	X				

**NYSDEC WELLS**

**INSTALLED SEPT/OCT 93**

<b>GW7B-93</b>	X				
<b>GW8A-93</b>	X				
<b>GW8B-93</b>	X				
<b>GW9A-93</b>	X				
<b>GW9B-93</b>	X				
<b>GW11B-93</b>	X				

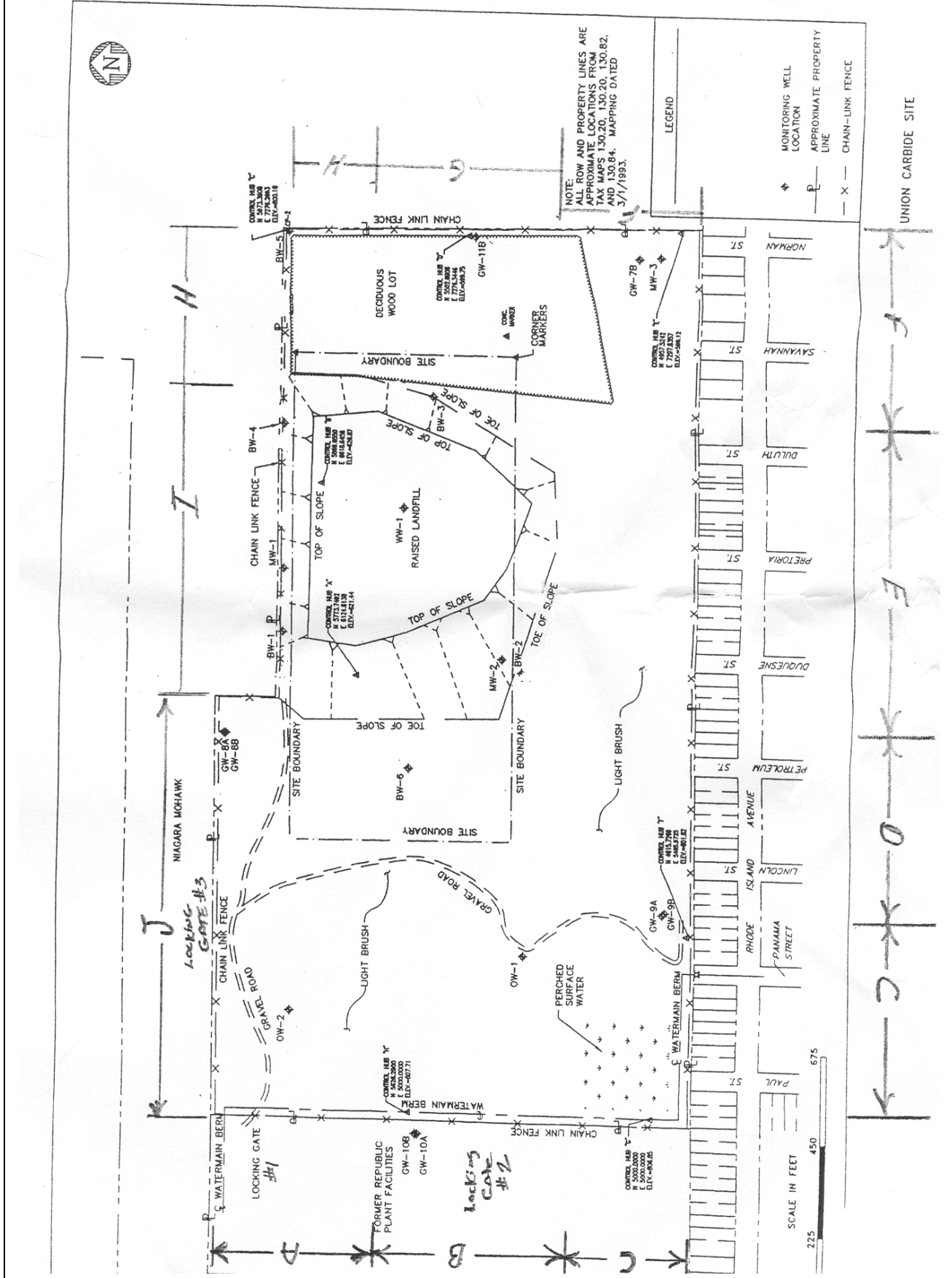
**COMMENTS**



NOTE:  
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 AND 130.84, MAPPING DATED  
 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X- CHAIN-LINK FENCE



SCALE IN FEET  
 225 450 675

UNION CARBIDE SITE

## INSPECTION OF LANFILL FENCE & CAP & SURROUNDING AREA

Date	Time	Inspector
6-8-09	3:12 PM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B		X	6/11/09	8 ft cut/ 2 bars installed
C		X	6/11/09	8 ft cut
D	X			
E		X	6/11/09	8ft cut
F	X			
G	X			
H	X			
I	X			
J	X			

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:**

**CAP CONDITION COMMENTS: ( Checking for erosion)      No Problems**

**SUROUNING AREA: No Problems**

**WELL INSPECTION**

<b>ID</b>	<b>WELL ID YES</b>	<b>WELL ID NO</b>	<b>LOCKED YES</b>	<b>LOCKED NO</b>	<b>COMMENTS</b>
<b>MW1-78</b>	X				
<b>MW2-78</b>	X				
<b>MW3-79</b>	X				
<b>BW1-86</b>	X				
<b>BW2-86</b>	X				
<b>BW3-86</b>	X				
<b>BW4-86</b>	X				
<b>BW5-86</b>	X				
<b>BW6-86</b>	X				
<b>WW1-86</b>	X				
<b>OW1-88</b>	X				
<b>OW2-88</b>	X				

**NYSDEC WELLS**

**INSTALLED SEPT/OCT 93**

<b>GW7B-93</b>	X				
<b>GW8A-93</b>	X				
<b>GW8B-93</b>	X				
<b>GW9A-93</b>	X				
<b>GW9B-93</b>	X				
<b>GW11B-93</b>	X				

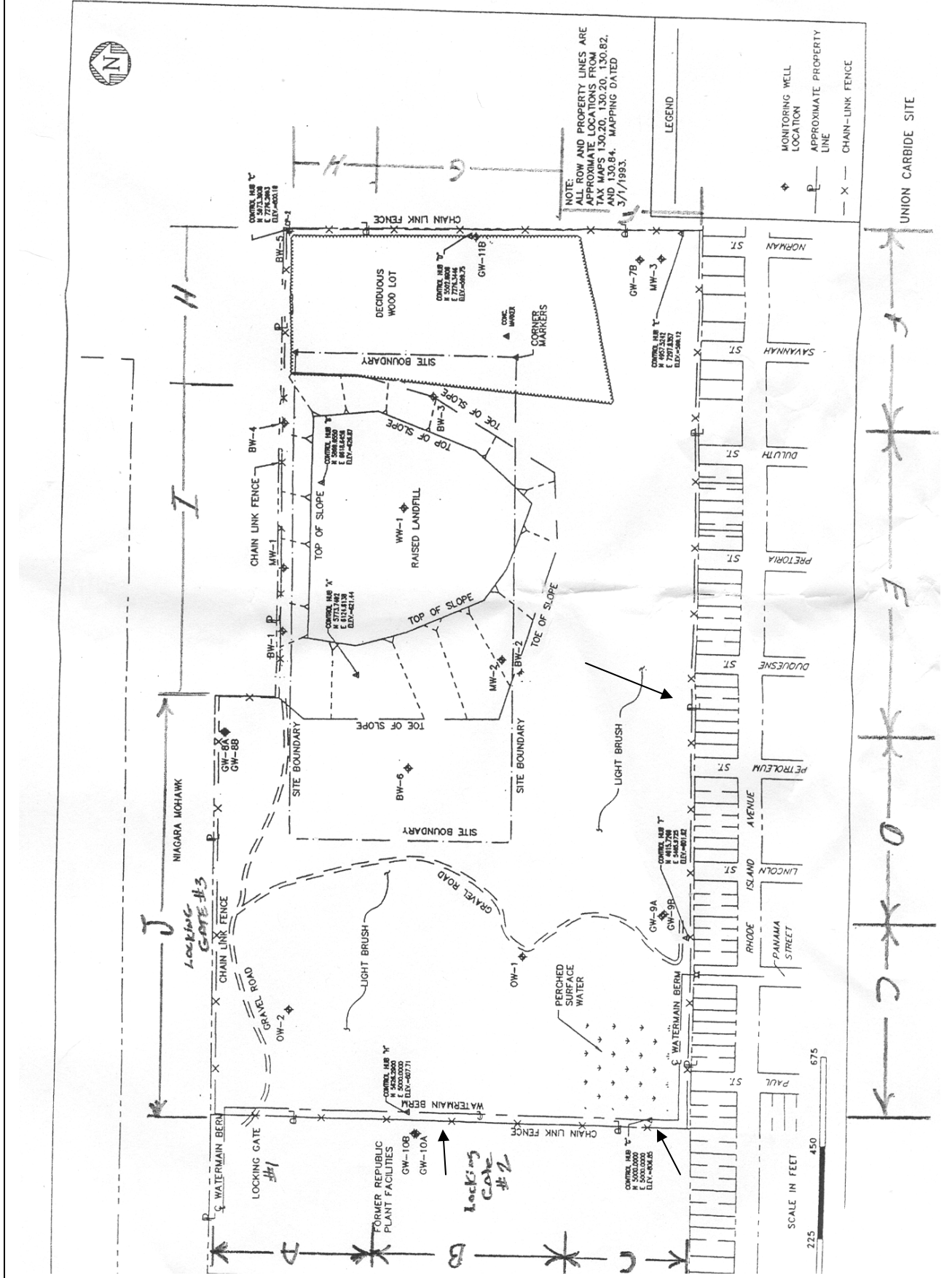
**COMMENTS**



NOTE:  
 ALL ROW AND PROPERTY LINES ARE  
 APPROXIMATE LOCATIONS FROM  
 TAX MAPS 130.20, 130.20, 130.82,  
 571D 130.84, MAPPING DATED  
 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X- CHAIN-LINK FENCE



UNION CARBIDE SITE

SCALE IN FEET  
 225 450 675

## INSPECTION OF LANFILL FENCE & CAP & SURROUNDING AREA

Date	Time	Inspector
6/16/09	3:44 PM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J	X			

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:** Need to replace all locks this year they are in poor condition even though they work.

**CAP CONDITION COMMENTS:** ( Checking for erosion)

**SUROUNING AREA:**

**WELL INSPECTION**

ID	WELL ID	WELL ID	LOCKED	LOCKED	COMMENTS
	YES	NO	YES	NO	
MW1-78	X				
MW2-78	X				
MW3-79	X				
BW1-86	X				
BW2-86	X				
BW3-86	X				
BW4-86	X				
BW5-86	X				
BW6-86	X				
WW1-86	X				
OW1-88	X				
OW2-88	X				

**NYSDEC WELLS**

**INSTALLED SEPT/OCT 93**

<b>GW7B-93</b>	X				
<b>GW8A-93</b>	X				
<b>GW8B-93</b>	X				
<b>GW9A-93</b>	X				
<b>GW9B-93</b>	X				
<b>GW11B-93</b>	X				

**COMMENTS**

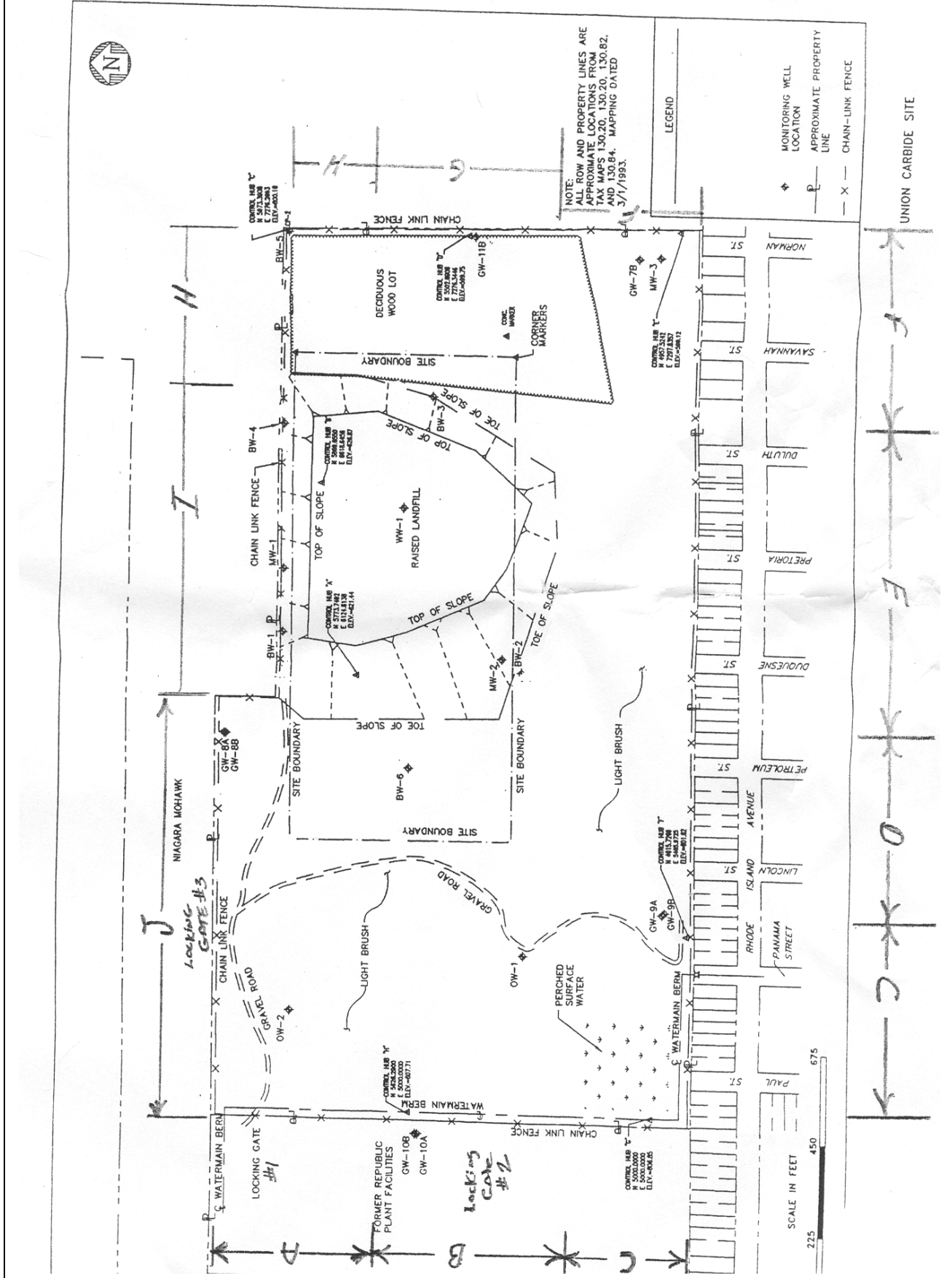


NOTE:  
 ALL ROW AND PROPERTY LINES ARE  
 APPROXIMATE LOCATIONS FROM  
 TAX MAPS 130.20, 130.20, 130.82,  
 AND 130.84, MAPPING DATED  
 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X- CHAIN-LINK FENCE

UNION CARBIDE SITE





## INSPECTION OF LANFILL FENCE & CAP & SURROUNDING AREA

Date	Time	Inspector
6/25/09	9:15 AM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J	X			

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:** Need to replace all locks this year they are in poor condition even though they work. Waiting for purchase approval

**CAP CONDITION COMMENTS:** ( Checking for erosion)

**SUROUNING AREA:**

**WELL INSPECTION**

ID	WELL ID	WELL ID	LOCKED	LOCKED	COMMENTS
	YES	NO	YES	NO	
MW1-78	X				
MW2-78	X				
MW3-79	X				
BW1-86	X				
BW2-86	X				
BW3-86	X				
BW4-86	X				
BW5-86	X				
BW6-86	X				
WW1-86	X				
OW1-88	X				
OW2-88	X				

**NYSDEC WELLS**

**INSTALLED SEPT/OCT 93**

GW7B-93	X				
GW8A-93	X				
GW8B-93	X				
GW9A-93	X				
GW9B-93	X				
GW11B-93	X				

**COMMENTS**

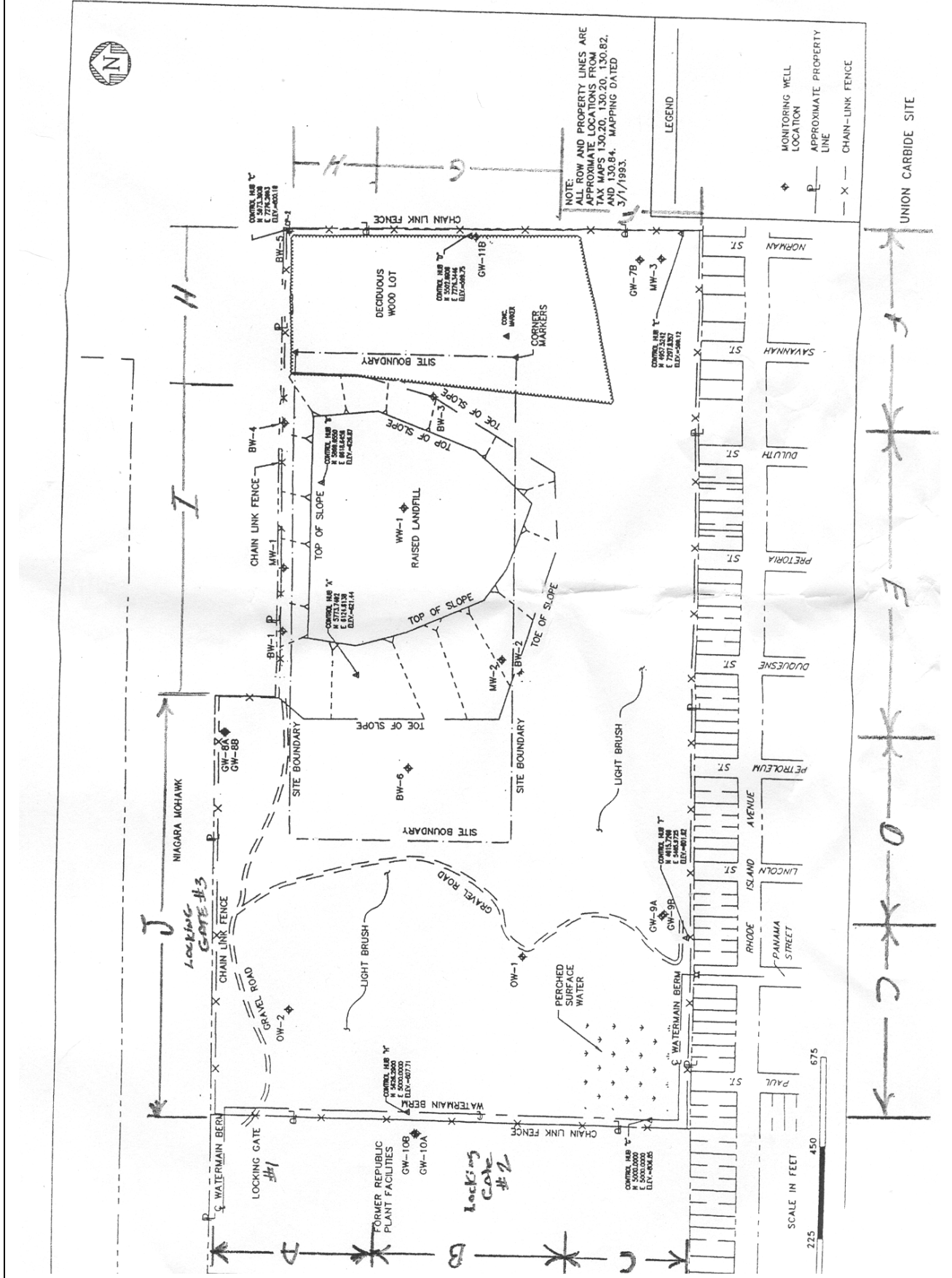


NOTE:  
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 APPROXIMATE LOCATIONS FROM  
 TAX MAPS 130.20, 130.20, 130.82,  
 AND 130.84, MAPPING DATED  
 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X- CHAIN-LINK FENCE

UNION CARBIDE SITE



SCALE IN FEET  
 225 450 675

## INSPECTION OF LANFILL FENCE & CAP & SURROUNDING AREA

<b>Date</b>	<b>Time</b>	<b>Inspector</b>
7/03/09	3:50 PM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J	X			

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:** Need to replace all locks this year they are in poor condition even though they work. Waiting for purchase approval

**CAP CONDITION COMMENTS:** ( Checking for erosion)

**SUROUNING AREA:**

**WELL INSPECTION**

ID	WELL ID	WELL ID	LOCKED	LOCKED	COMMENTS
	YES	NO	YES	NO	
MW1-78	X				
MW2-78	X				
MW3-79	X				
BW1-86	X				
BW2-86	X				
BW3-86	X				
BW4-86	X				
BW5-86	X				
BW6-86	X				
WW1-86	X				
OW1-88	X				
OW2-88	X				

**NYSDEC WELLS**

**INSTALLED SEPT/OCT 93**

<b>GW7B-93</b>	X				
<b>GW8A-93</b>	X				
<b>GW8B-93</b>	X				
<b>GW9A-93</b>	X				
<b>GW9B-93</b>	X				
<b>GW11B-93</b>	X				

**COMMENTS**

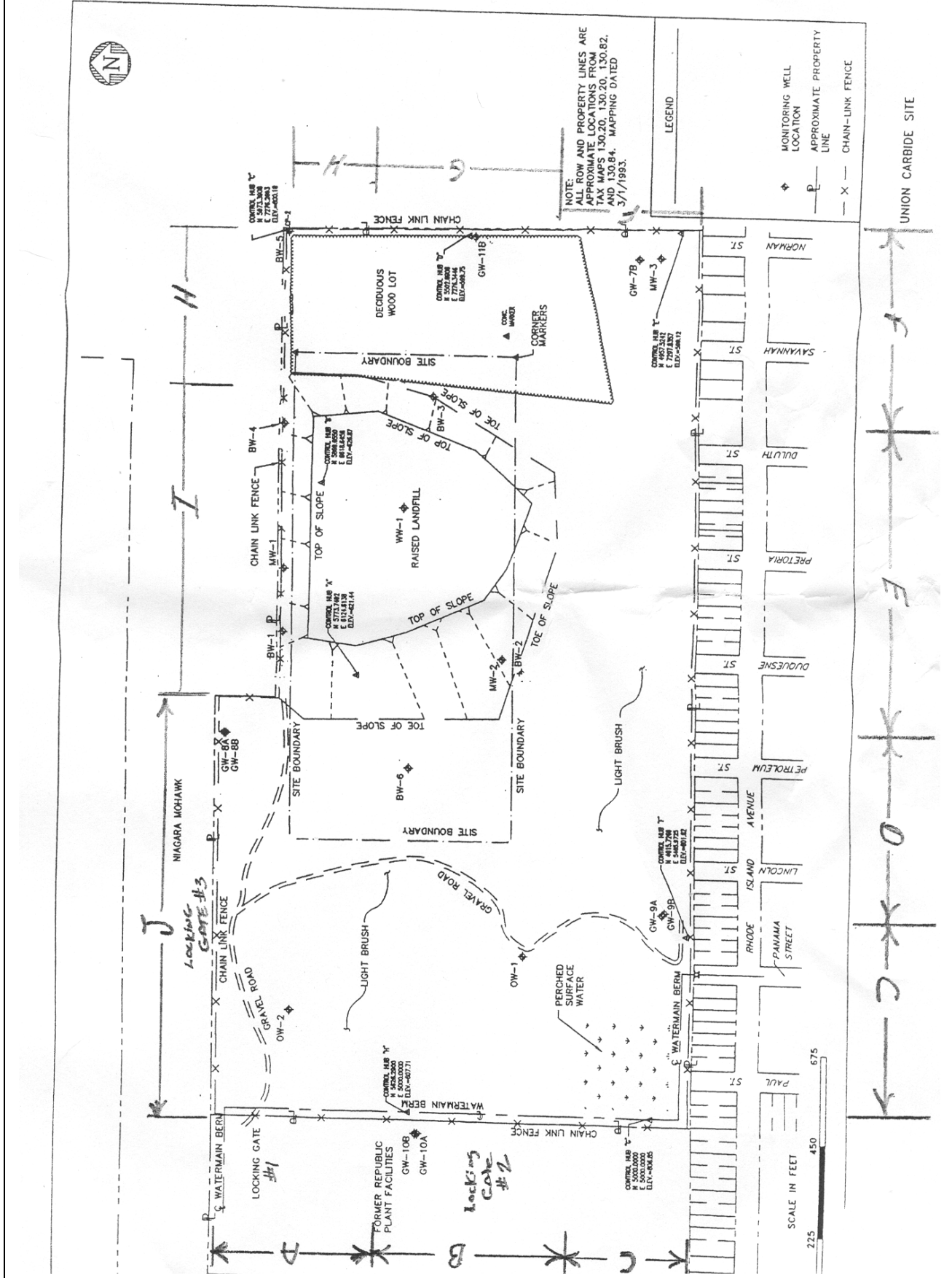


NOTE:  
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 APPROXIMATE LOCATIONS FROM  
 TAX MAPS 130.20, 130.20, 130.82,  
 AND 130.84, MAPPING DATED  
 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X- CHAIN-LINK FENCE

UNION CARBIDE SITE



## INSPECTION OF LANFILL FENCE & CAP & SURROUNDING AREA

Date	Time	Inspector
7/11/09	7:00 AM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J	X			

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:** Need to replace all locks this year they are in poor condition even though they work. Waiting for purchase approval

**CAP CONDITION COMMENTS:** ( Checking for erosion)

**SUROUNING AREA:**

**WELL INSPECTION**

<b>ID</b>	<b>WELL ID YES</b>	<b>WELL ID NO</b>	<b>LOCKED YES</b>	<b>LOCKED NO</b>	<b>COMMENTS</b>
<b>MW1-78</b>	X				
<b>MW2-78</b>	X				
<b>MW3-79</b>	X				
<b>BW1-86</b>	X				
<b>BW2-86</b>	X				
<b>BW3-86</b>	X				
<b>BW4-86</b>	X				
<b>BW5-86</b>	X				
<b>BW6-86</b>	X				
<b>WW1-86</b>	X				
<b>OW1-88</b>	X				
<b>OW2-88</b>	X				

**NYSDEC WELLS**

**INSTALLED SEPT/OCT 93**

<b>GW7B-93</b>	X				
<b>GW8A-93</b>	X				
<b>GW8B-93</b>	X				
<b>GW9A-93</b>	X				
<b>GW9B-93</b>	X				
<b>GW11B-93</b>	X				

**COMMENTS**



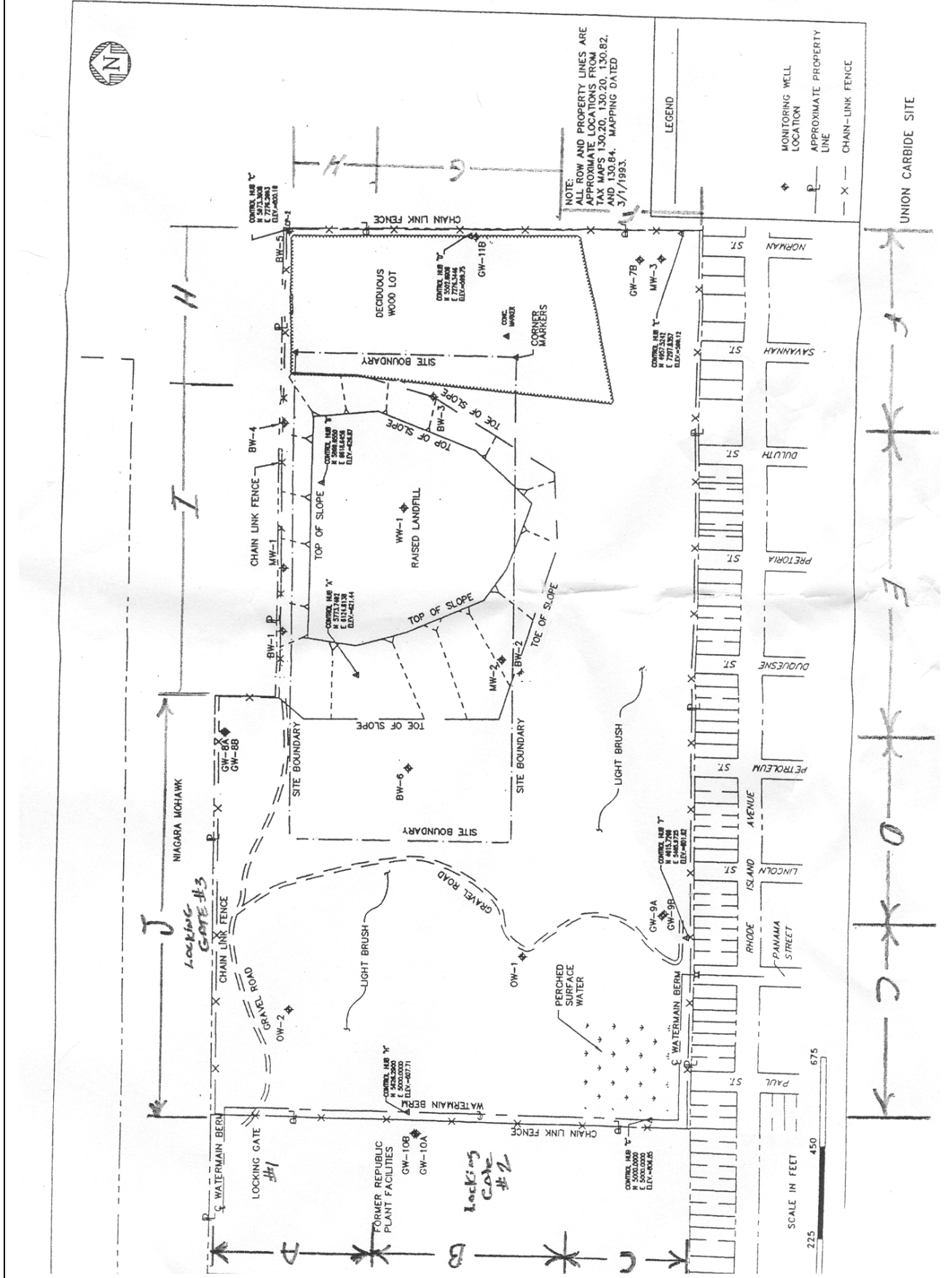


NOTE:  
 ALL ROW AND PROPERTY LINES ARE  
 APPROXIMATE LOCATIONS FROM  
 TAX MAPS 130.20, 130.20, 130.82,  
 AND 130.84, MAPPING DATED  
 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X- CHAIN-LINK FENCE

UNION CARBIDE SITE



SCALE IN FEET  
 225 450 675

## INSPECTION OF LANFILL FENCE & CAP & SURROUNDING AREA

Date	Time	Inspector
7/13/09	1:45 PM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H		X	7/20/09	4 ft. slit in fence from ground
I	X			
J	X			

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:** Need to replace all locks this year they are in poor condition even though they work. Waiting for purchase approval

**CAP CONDITION COMMENTS:** ( Checking for erosion)

**SUROUNING AREA:**

**WELL INSPECTION**

ID	WELL ID	WELL ID	LOCKED	LOCKED	COMMENTS
	YES	NO	YES	NO	
MW1-78	X				
MW2-78	X				
MW3-79	X				
BW1-86	X				
BW2-86	X				
BW3-86	X				
BW4-86	X				
BW5-86	X				
BW6-86	X				
WW1-86	X				
OW1-88	X				
OW2-88	X				

**NYSDEC WELLS**

**INSTALLED SEPT/OCT 93**

GW7B-93	X				
GW8A-93	X				
GW8B-93	X				
GW9A-93	X				
GW9B-93	X				
GW11B-93	X				

**COMMENTS**

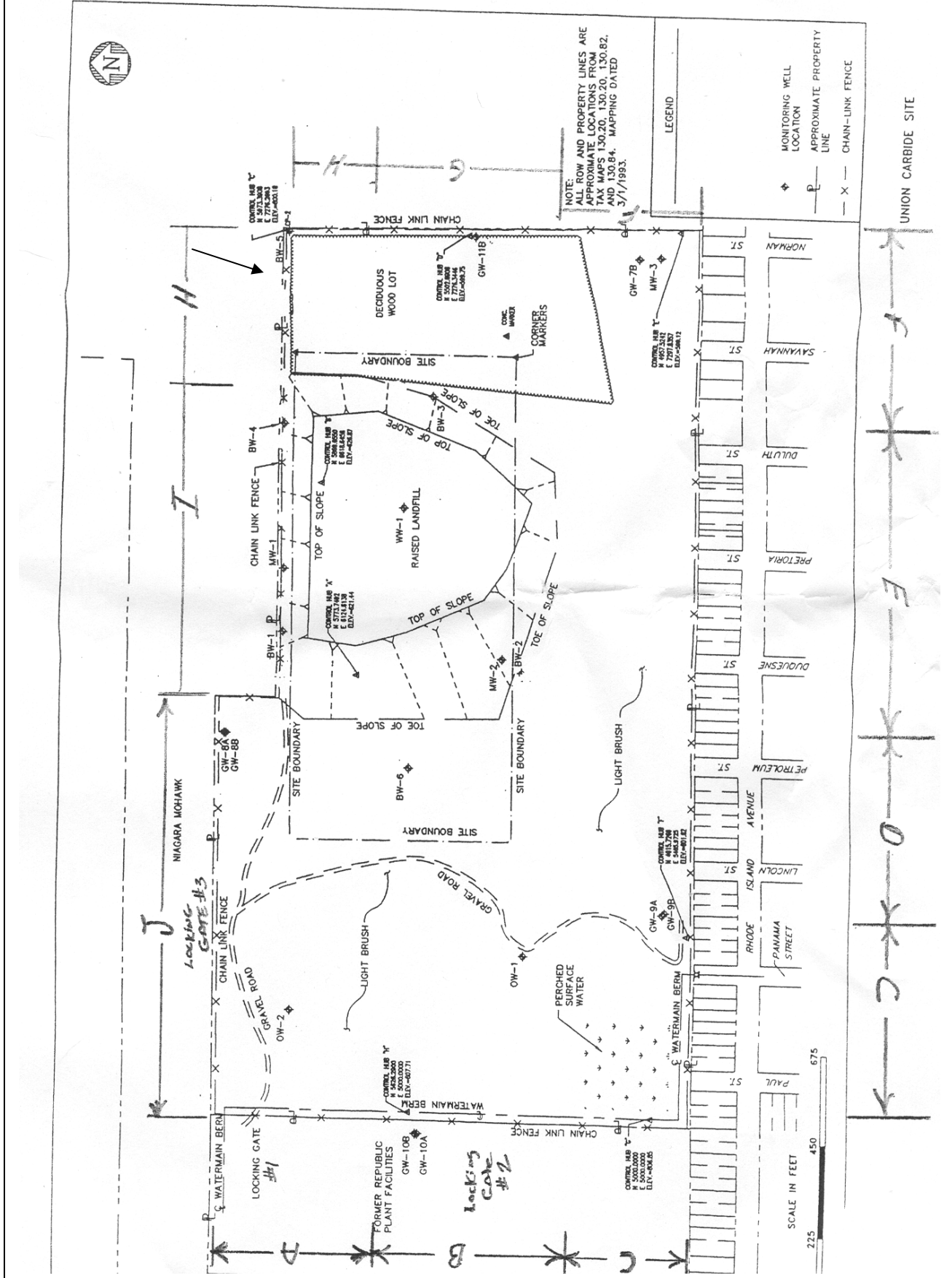


NOTE:  
 ALL ROW AND PROPERTY LINES ARE  
 APPROXIMATE LOCATIONS FROM  
 TAX MAPS 130.20, 130.20, 130.82,  
 AND 130.84, MAPPING DATED  
 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X- CHAIN-LINK FENCE

UNION CARBIDE SITE



## INSPECTION OF LANFILL FENCE & CAP & SURROUNDING AREA

Date	Time	Inspector
7/20/09	9:45 AM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J	X			

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:** Need to replace all locks this year they are in poor condition even though they work. Waiting for purchase approval

**CAP CONDITION COMMENTS:** ( Checking for erosion) Cut thick brush 2 trees east end

**SUROUNDING AREA:**

**WELL INSPECTION**

ID	WELL ID	WELL ID	LOCKED	LOCKED	COMMENTS
	YES	NO	YES	NO	
MW1-78	X				
MW2-78	X				
MW3-79	X				
BW1-86	X				
BW2-86	X				
BW3-86	X				
BW4-86	X				
BW5-86	X				
BW6-86	X				
WW1-86	X				
OW1-88	X				
OW2-88	X				

**NYSDEC WELLS**

**INSTALLED SEPT/OCT 93**

GW7B-93	X				
GW8A-93	X				
GW8B-93	X				
GW9A-93	X				
GW9B-93	X				
GW11B-93	X				

**COMMENTS**

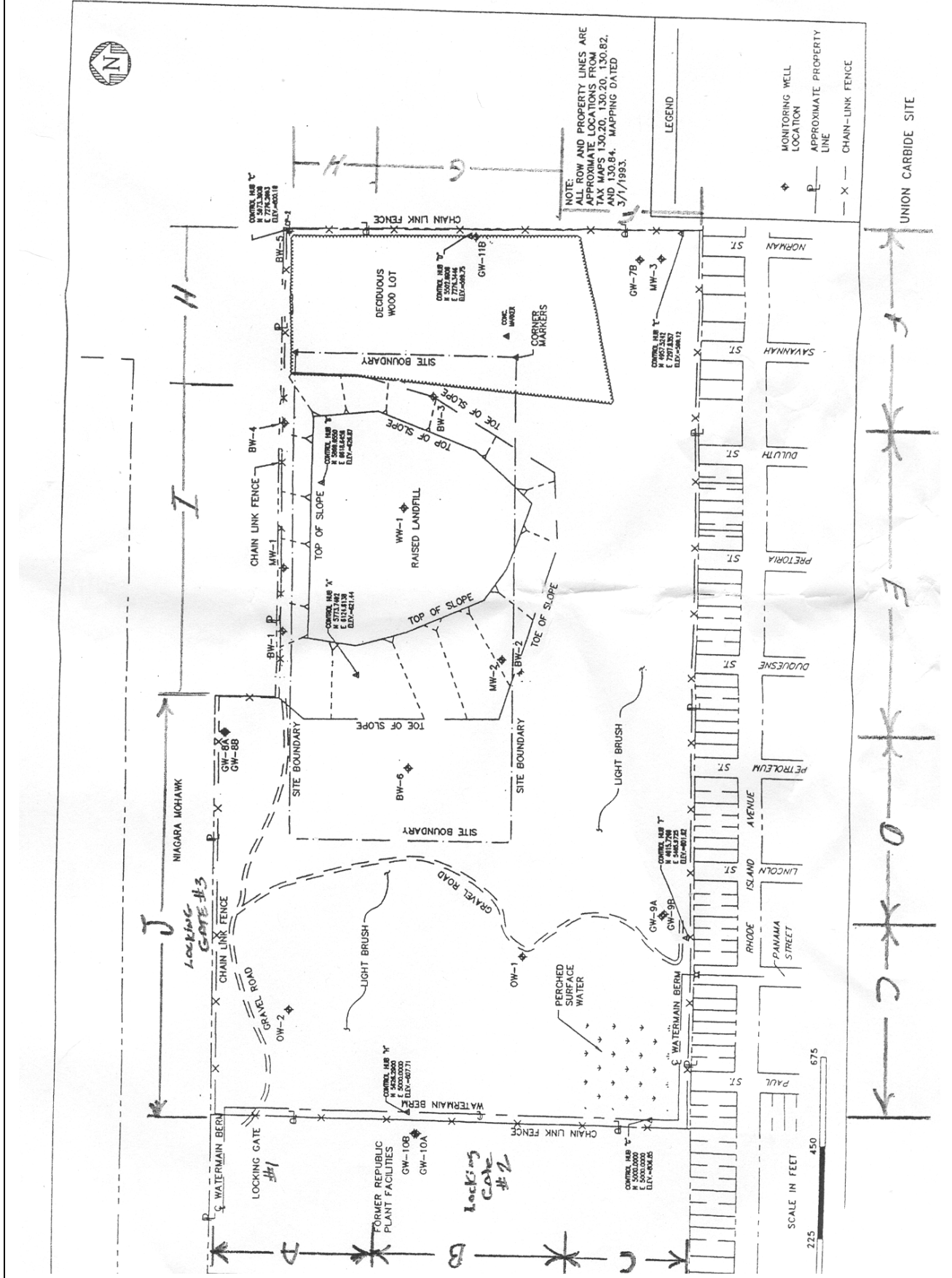


NOTE:  
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 APPROXIMATE LOCATIONS FROM  
 TAX MAPS 130.20, 130.20, 130.82,  
 AND 130.84, MAPPING DATED  
 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X- CHAIN-LINK FENCE

UNION CARBIDE SITE



SCALE IN FEET  
 225 450 675

## INSPECTION OF LANFILL FENCE & CAP & SURROUNDING AREA

<b>Date</b>	<b>Time</b>	<b>Inspector</b>
7/29/09	3:15 PM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J	X			

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:** Need to replace all locks this year they are in poor condition even though they work. Waiting for purchase approval

**CAP CONDITION COMMENTS:** ( Checking for erosion) Contractor began cutting the cap, very thick grass.

**SUROUNDING AREA:**



**WELL INSPECTION**

ID	WELL ID	WELL ID	LOCKED	LOCKED	COMMENTS
	YES	NO	YES	NO	
MW1-78	X				
MW2-78	X				
MW3-79	X				
BW1-86	X				
BW2-86	X				
BW3-86	X				
BW4-86	X				
BW5-86	X				
BW6-86	X				
WW1-86	X				
OW1-88	X				
OW2-88	X				

**NYSDEC WELLS**

**INSTALLED SEPT/OCT 93**

<b>GW7B-93</b>	X				
<b>GW8A-93</b>	X				
<b>GW8B-93</b>	X				
<b>GW9A-93</b>	X				
<b>GW9B-93</b>	X				
<b>GW11B-93</b>	X				

**COMMENTS**

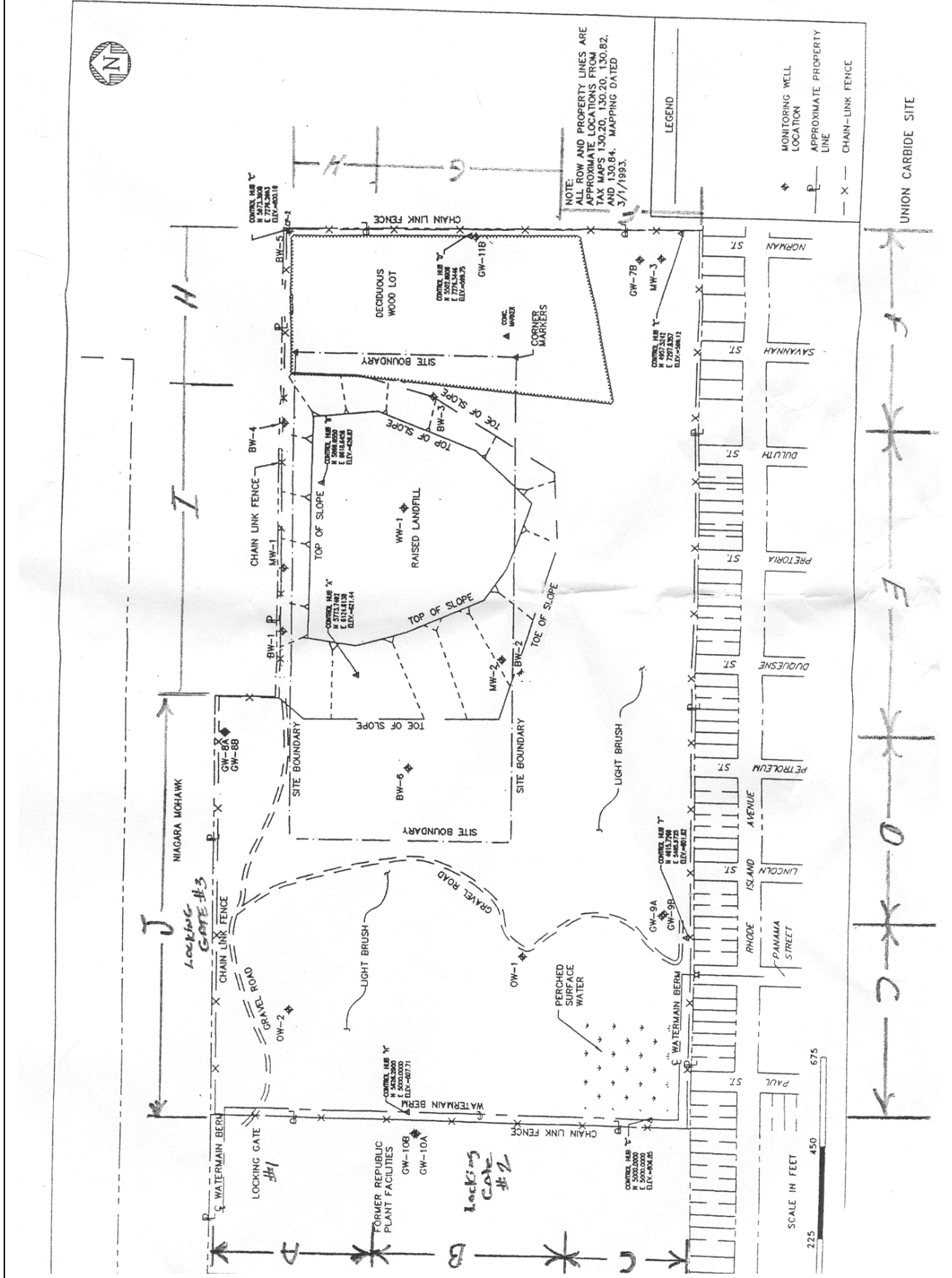


NOTE:  
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 APPROXIMATE LOCATIONS FROM  
 TAX MAPS 130.20, 130.20, 130.82,  
 AND 130.84, MAPPING DATED  
 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X- CHAIN-LINK FENCE

UNION CARBIDE SITE



## INSPECTION OF LANFILL FENCE & CAP & SURROUNDING AREA

Date	Time	Inspector
8/06/09	10:00 AM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J	X			

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:** Need to replace all locks this year they are in poor condition even though they work. Waiting for purchase approval

**CAP CONDITION COMMENTS:** ( Checking for erosion) Contractor began cutting the cap, very thick grass.

**SUROUNDING AREA:**

**WELL INSPECTION**

ID	WELL ID	WELL ID	LOCKED	LOCKED	COMMENTS
	YES	NO	YES	NO	
MW1-78	X				
MW2-78	X				
MW3-79	X				
BW1-86	X				
BW2-86	X				
BW3-86	X				
BW4-86	X				
BW5-86	X				
BW6-86	X				
WW1-86	X				
OW1-88	X				
OW2-88	X				

**NYSDEC WELLS**

**INSTALLED SEPT/OCT 93**

GW7B-93	X				
GW8A-93	X				
GW8B-93	X				
GW9A-93	X				
GW9B-93	X				
GW11B-93	X				

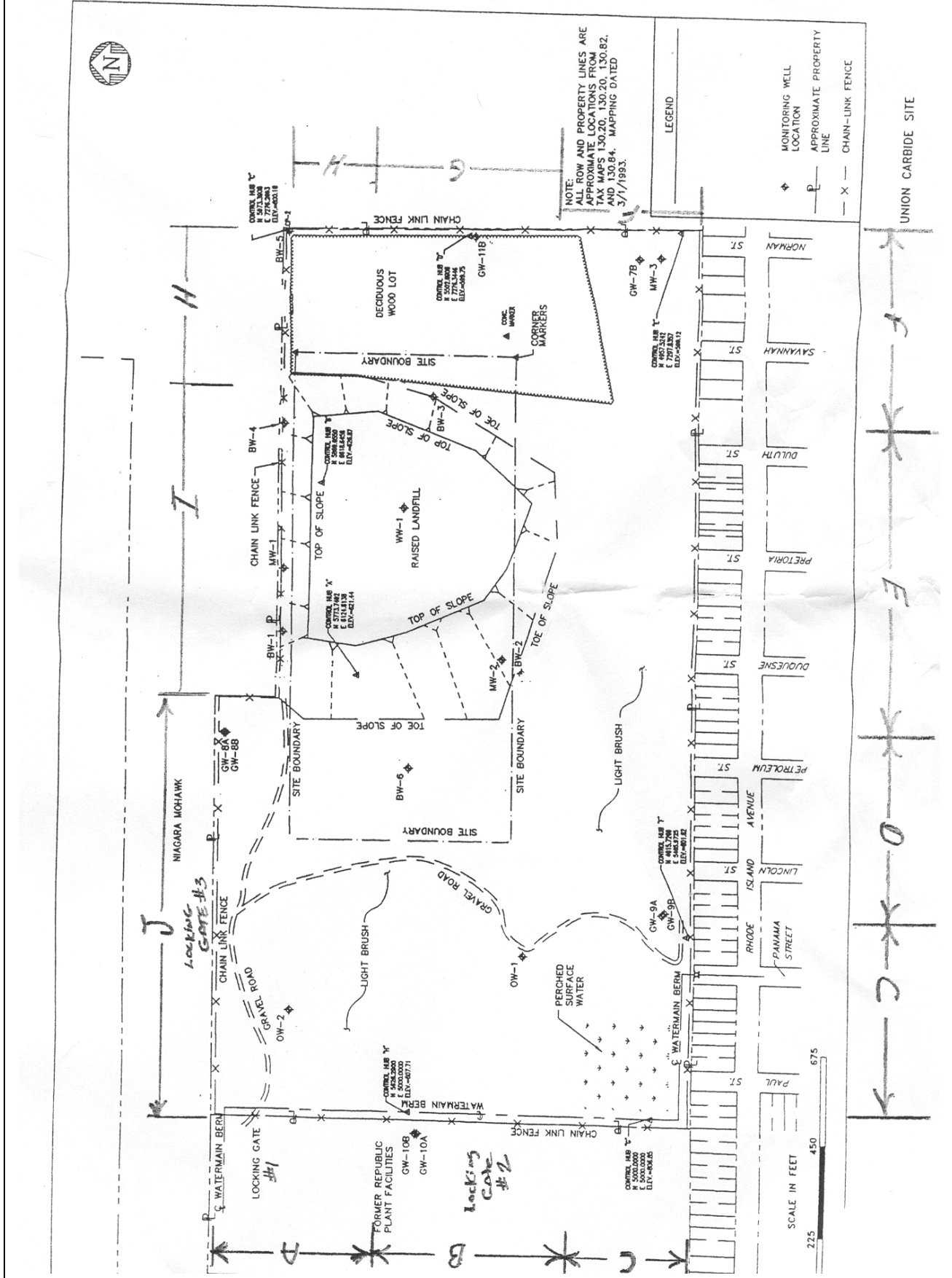
**COMMENTS**



NOTE:  
 ALL ROW AND PROPERTY LINES ARE  
 APPROXIMATE LOCATIONS FROM  
 TAX MAPS 130.20, 130.20, 130.82,  
 AND 130.84, MAPPING DATED  
 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X- CHAIN-LINK FENCE



UNION CARBIDE SITE

SCALE IN FEET  
 225 450 675

## INSPECTION OF LANFILL FENCE & CAP & SURROUNDING AREA

Date	Time	Inspector
8/11/09	8:15 AM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J	X			

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:** Need to replace all locks this year they are in poor condition even though they work. Waiting for purchase approval

**CAP CONDITION COMMENTS:** ( Checking for erosion) Contractor began cutting the cap, very thick grass.

**SUROUNING AREA:**

**WELL INSPECTION**

ID	WELL ID	WELL ID	LOCKED	LOCKED	COMMENTS
	YES	NO	YES	NO	
MW1-78	X				
MW2-78	X				
MW3-79	X				
BW1-86	X				
BW2-86	X				
BW3-86	X				
BW4-86	X				
BW5-86	X				
BW6-86	X				
WW1-86	X				
OW1-88	X				
OW2-88	X				

**NYSDEC WELLS**

**INSTALLED SEPT/OCT 93**

GW7B-93	X				
GW8A-93	X				
GW8B-93	X				
GW9A-93	X				
GW9B-93	X				
GW11B-93	X				

**COMMENTS**

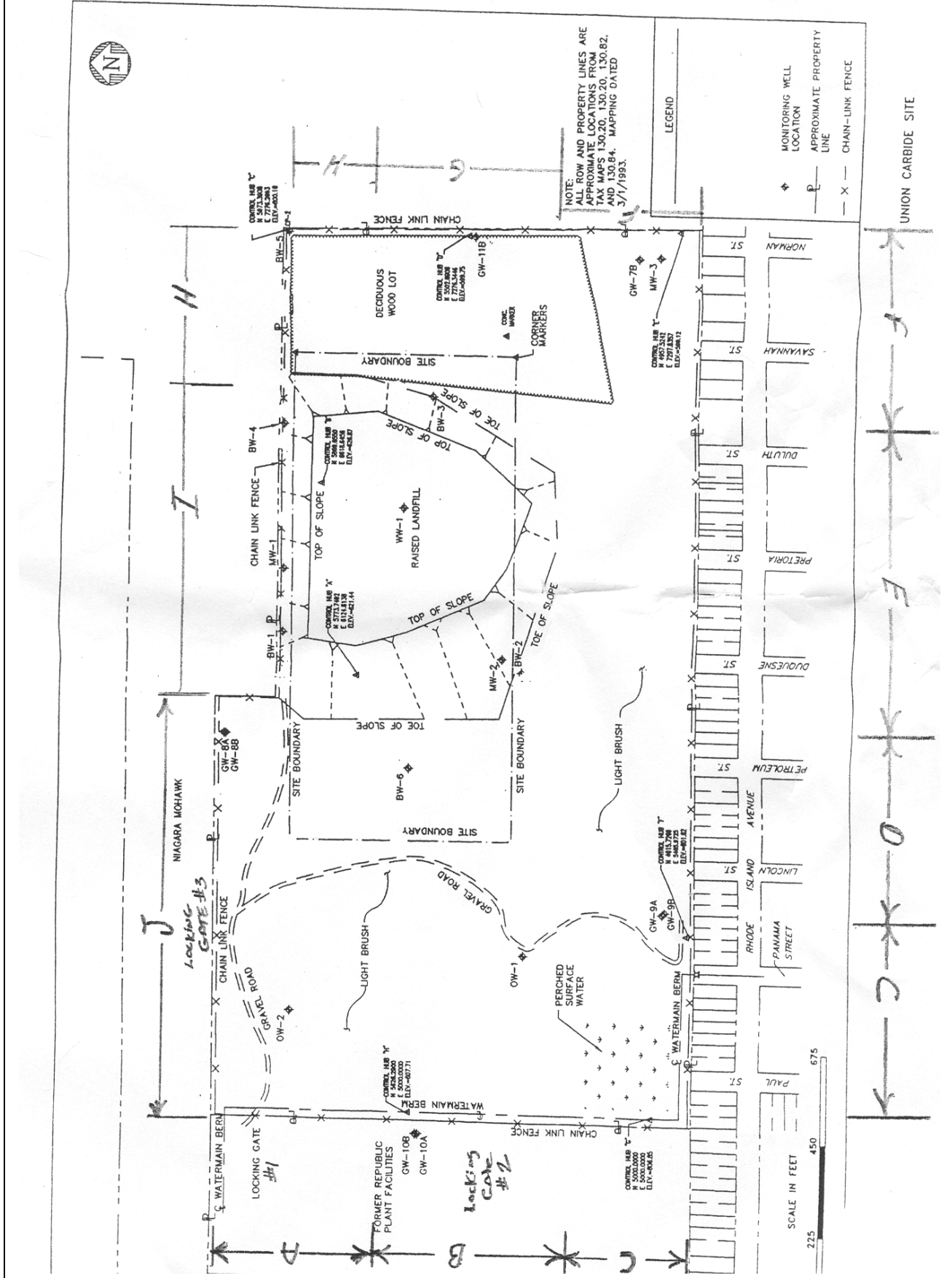


NOTE:  
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 APPROXIMATE LOCATIONS FROM  
 TAX MAPS 130.20, 130.20, 130.82,  
 AND 130.84, MAPPING DATED  
 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X- CHAIN-LINK FENCE

UNION CARBIDE SITE





## INSPECTION OF LANFILL FENCE & CAP & SURROUNDING AREA

Date	Time	Inspector
8/17/09	1:25 PM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J	X			

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:** Need to replace all locks this year they are in poor condition even though they work. Waiting for purchase approval

**CAP CONDITION COMMENTS:** ( Checking for erosion) Contractor began cutting the cap, very thick grass.

**SUROUNDING AREA:**

**WELL INSPECTION**

<b>ID</b>	<b>WELL ID YES</b>	<b>WELL ID NO</b>	<b>LOCKED YES</b>	<b>LOCKED NO</b>	<b>COMMENTS</b>
<b>MW1-78</b>	X				
<b>MW2-78</b>	X				
<b>MW3-79</b>	X				
<b>BW1-86</b>	X				
<b>BW2-86</b>	X				
<b>BW3-86</b>	X				
<b>BW4-86</b>	X				
<b>BW5-86</b>	X				
<b>BW6-86</b>	X				
<b>WW1-86</b>	X				
<b>OW1-88</b>	X				
<b>OW2-88</b>	X				

**NYSDEC WELLS**

**INSTALLED SEPT/OCT 93**

<b>GW7B-93</b>	X				
<b>GW8A-93</b>	X				
<b>GW8B-93</b>	X				
<b>GW9A-93</b>	X				
<b>GW9B-93</b>	X				
<b>GW11B-93</b>	X				

**COMMENTS**

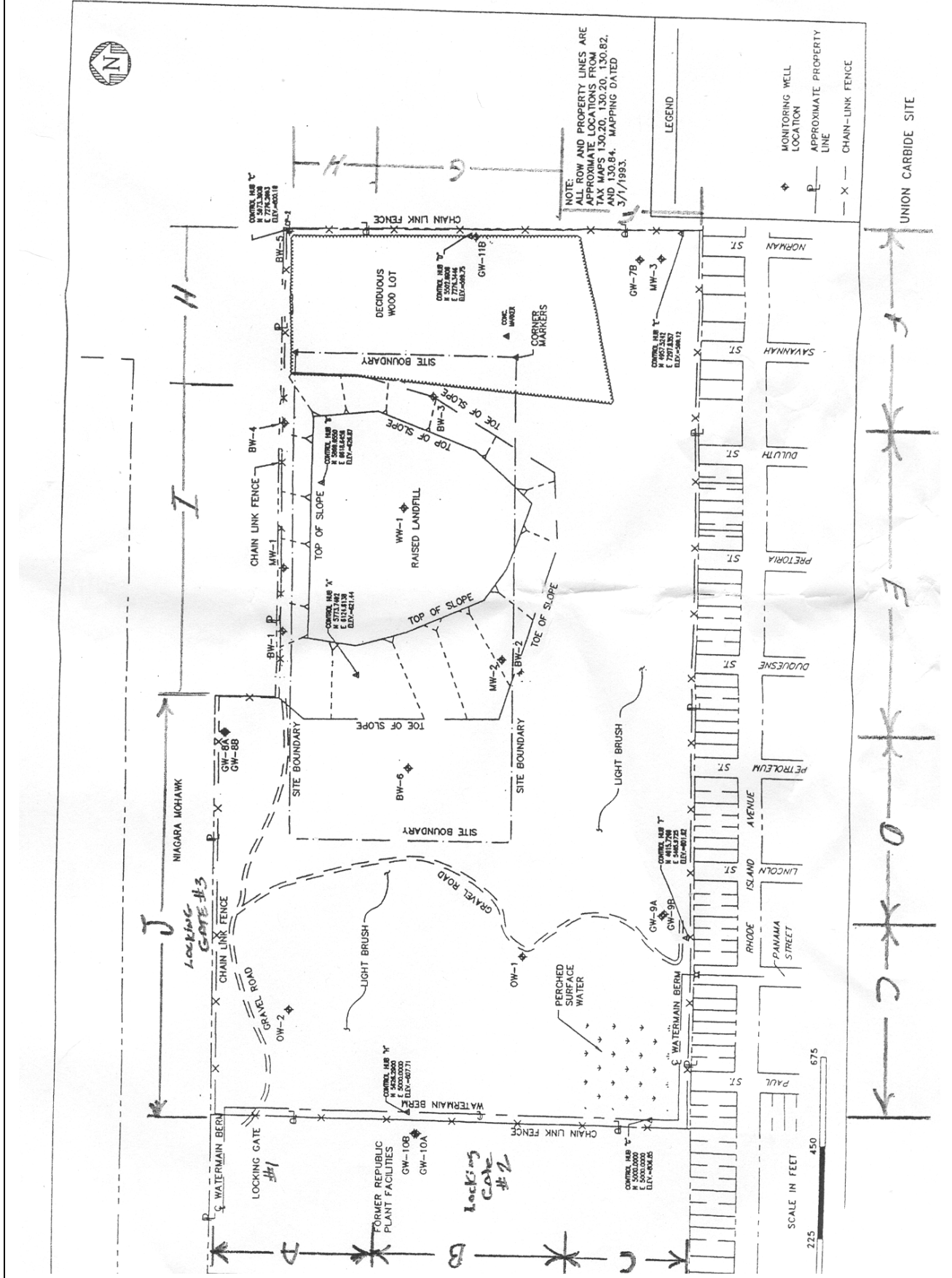


NOTE:  
 ALL ROW AND PROPERTY LINES ARE  
 APPROXIMATE LOCATIONS FROM  
 TAX MAPS 130.20, 130.20, 130.82,  
 AND 130.84, MAPPING DATED  
 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X- CHAIN-LINK FENCE

UNION CARBIDE SITE



## INSPECTION OF LANFILL FENCE & CAP & SURROUNDING AREA

Date	Time	Inspector
8/25/09	2:45 PM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J	X			

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:** Need to replace all locks this year they are in poor condition even though they work. Waiting for purchase approval

**CAP CONDITION COMMENTS:** ( Checking for erosion) Contractor is still working on cutting the cap, very thick grass.

**SUROUNING AREA:**

**WELL INSPECTION**

ID	WELL ID	WELL ID	LOCKED	LOCKED	COMMENTS
	YES	NO	YES	NO	
MW1-78	X				
MW2-78	X				
MW3-79	X				
BW1-86	X				
BW2-86	X				
BW3-86	X				
BW4-86	X				
BW5-86	X				
BW6-86	X				
WW1-86	X				
OW1-88	X				
OW2-88	X				

**NYSDEC WELLS**

**INSTALLED SEPT/OCT 93**

<b>GW7B-93</b>	X				
<b>GW8A-93</b>	X				
<b>GW8B-93</b>	X				
<b>GW9A-93</b>	X				
<b>GW9B-93</b>	X				
<b>GW11B-93</b>	X				

**COMMENTS**

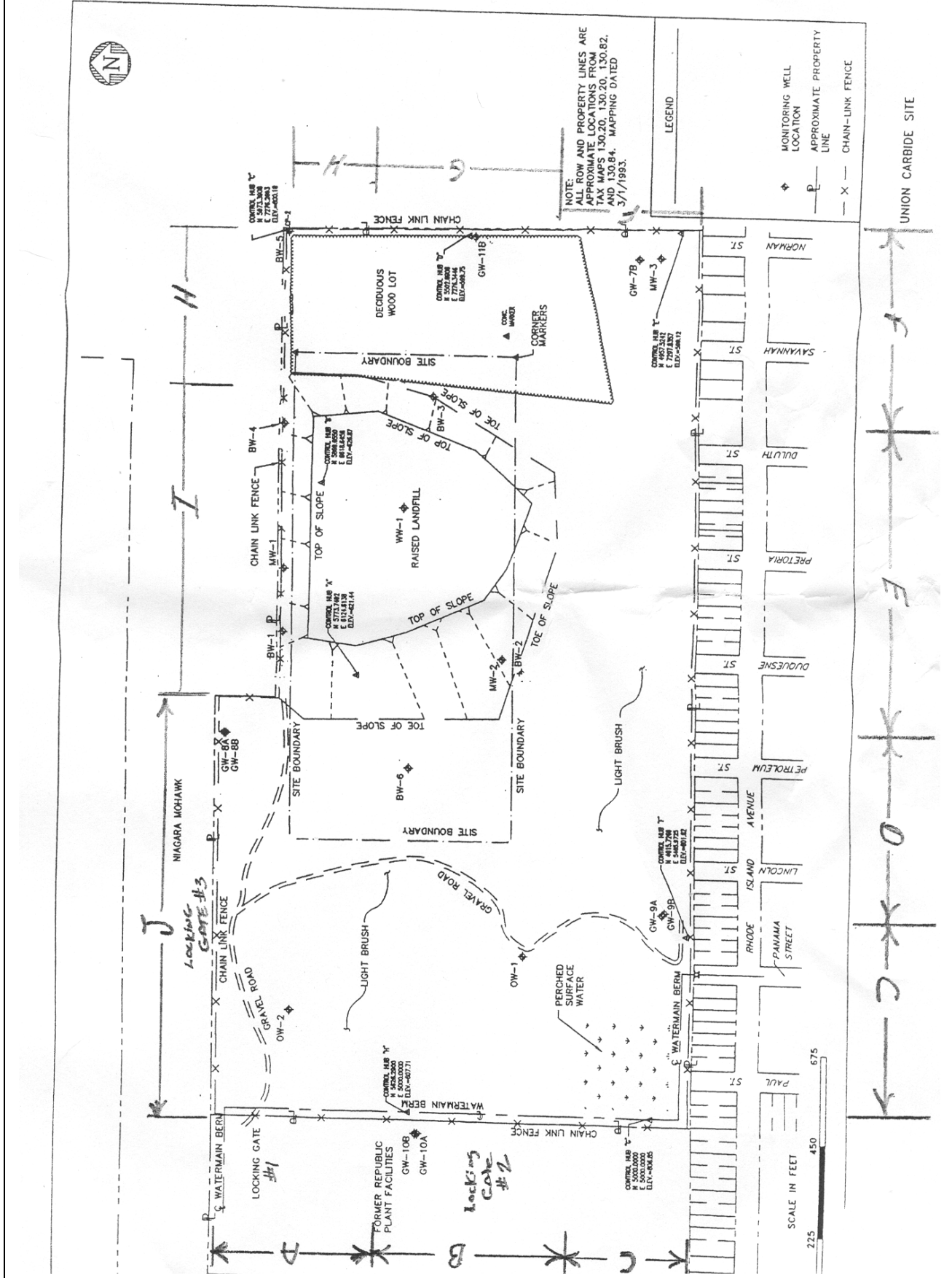


NOTE:  
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 APPROXIMATE LOCATIONS FROM  
 TAX MAPS 130.20, 130.20, 130.82,  
 AND 130.84, MAPPING DATED  
 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X- CHAIN-LINK FENCE

UNION CARBIDE SITE



SCALE IN FEET  
 225 450 675

## INSPECTION OF LANFILL FENCE & CAP & SURROUNDING AREA

Date	Time	Inspector
9/01/09	2:45 PM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J	X			

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:** Need to replace all locks this year they are in poor condition even though they work. Waiting for purchase approval

**CAP CONDITION COMMENTS:** ( Checking for erosion) Contractor is still working on cutting the cap, very thick grass.

**SUROUNDING AREA:**

**WELL INSPECTION**

ID	WELL ID	WELL ID	LOCKED	LOCKED	COMMENTS
	YES	NO	YES	NO	
MW1-78	X				
MW2-78	X				
MW3-79	X				
BW1-86	X				
BW2-86	X				
BW3-86	X				
BW4-86	X				
BW5-86	X				
BW6-86	X				
WW1-86	X				
OW1-88	X				
OW2-88	X				

**NYSDEC WELLS**

**INSTALLED SEPT/OCT 93**

GW7B-93	X				
GW8A-93	X				
GW8B-93	X				
GW9A-93	X				
GW9B-93	X				
GW11B-93	X				

**COMMENTS**

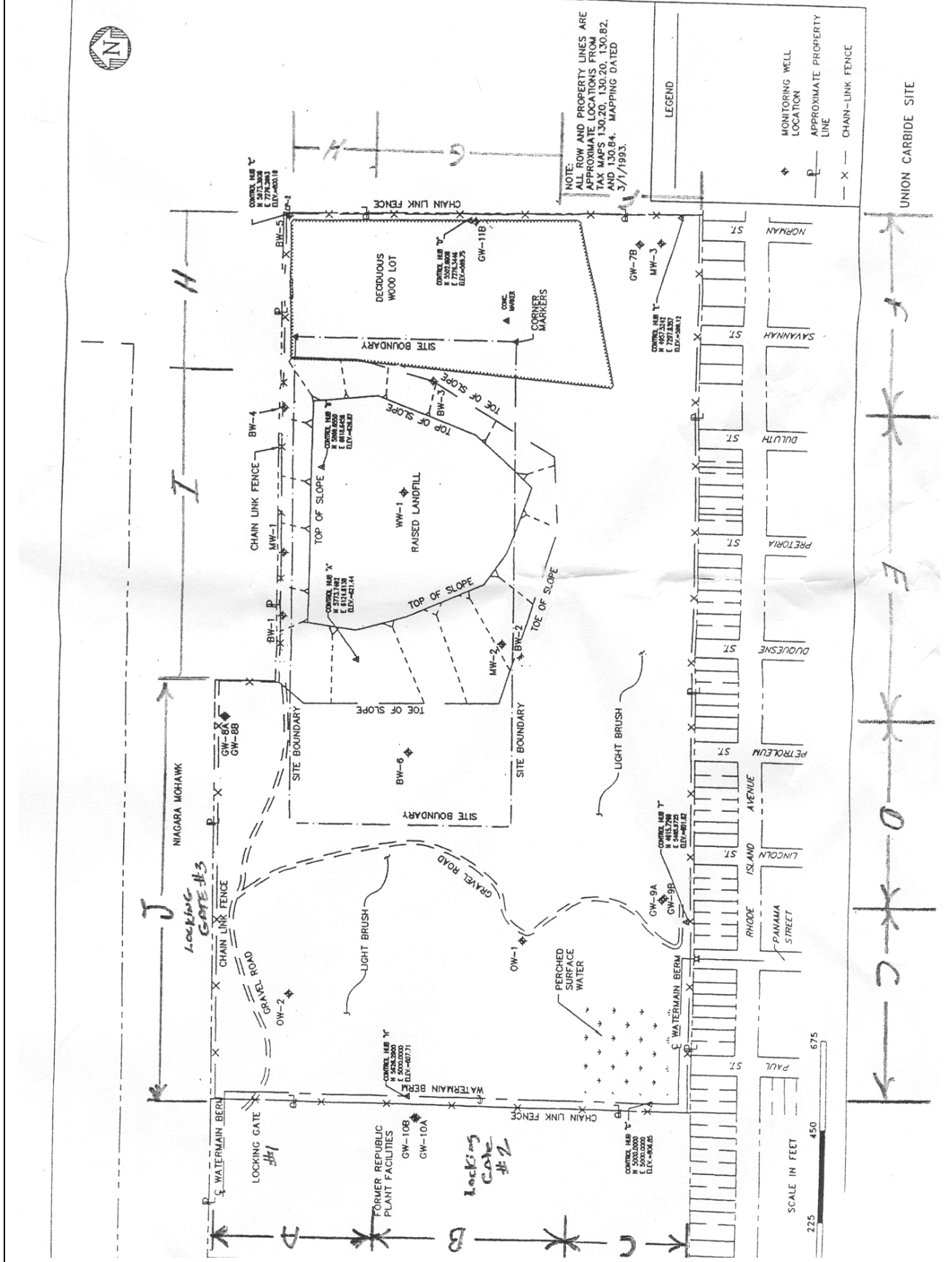




NOTE:  
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 TAX MAPS 130.20, 130.20, 130.82,  
 AND 130.84, MAPPING DATED  
 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X- CHAIN-LINK FENCE



UNION CARBIDE SITE

SCALE IN FEET  
 225 450 675

## INSPECTION OF LANFILL FENCE & CAP & SURROUNDING AREA

Date	Time	Inspector
9/08/09	7:25 AM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J	X			

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:** Need to replace all locks this year they are in poor condition even though they work. Waiting for purchase approval

**CAP CONDITION COMMENTS:** ( Checking for erosion) Contractor is still working on cutting the cap, very thick grass.

**SUROUNDING AREA:**

**WELL INSPECTION**

<b>ID</b>	<b>WELL ID YES</b>	<b>WELL ID NO</b>	<b>LOCKED YES</b>	<b>LOCKED NO</b>	<b>COMMENTS</b>
<b>MW1-78</b>	X				
<b>MW2-78</b>	X				
<b>MW3-79</b>	X				
<b>BW1-86</b>	X				
<b>BW2-86</b>	X				
<b>BW3-86</b>	X				
<b>BW4-86</b>	X				
<b>BW5-86</b>	X				
<b>BW6-86</b>	X				
<b>WW1-86</b>	X				
<b>OW1-88</b>	X				
<b>OW2-88</b>	X				

**NYSDEC WELLS**

**INSTALLED SEPT/OCT 93**

<b>GW7B-93</b>	X				
<b>GW8A-93</b>	X				
<b>GW8B-93</b>	X				
<b>GW9A-93</b>	X				
<b>GW9B-93</b>	X				
<b>GW11B-93</b>	X				

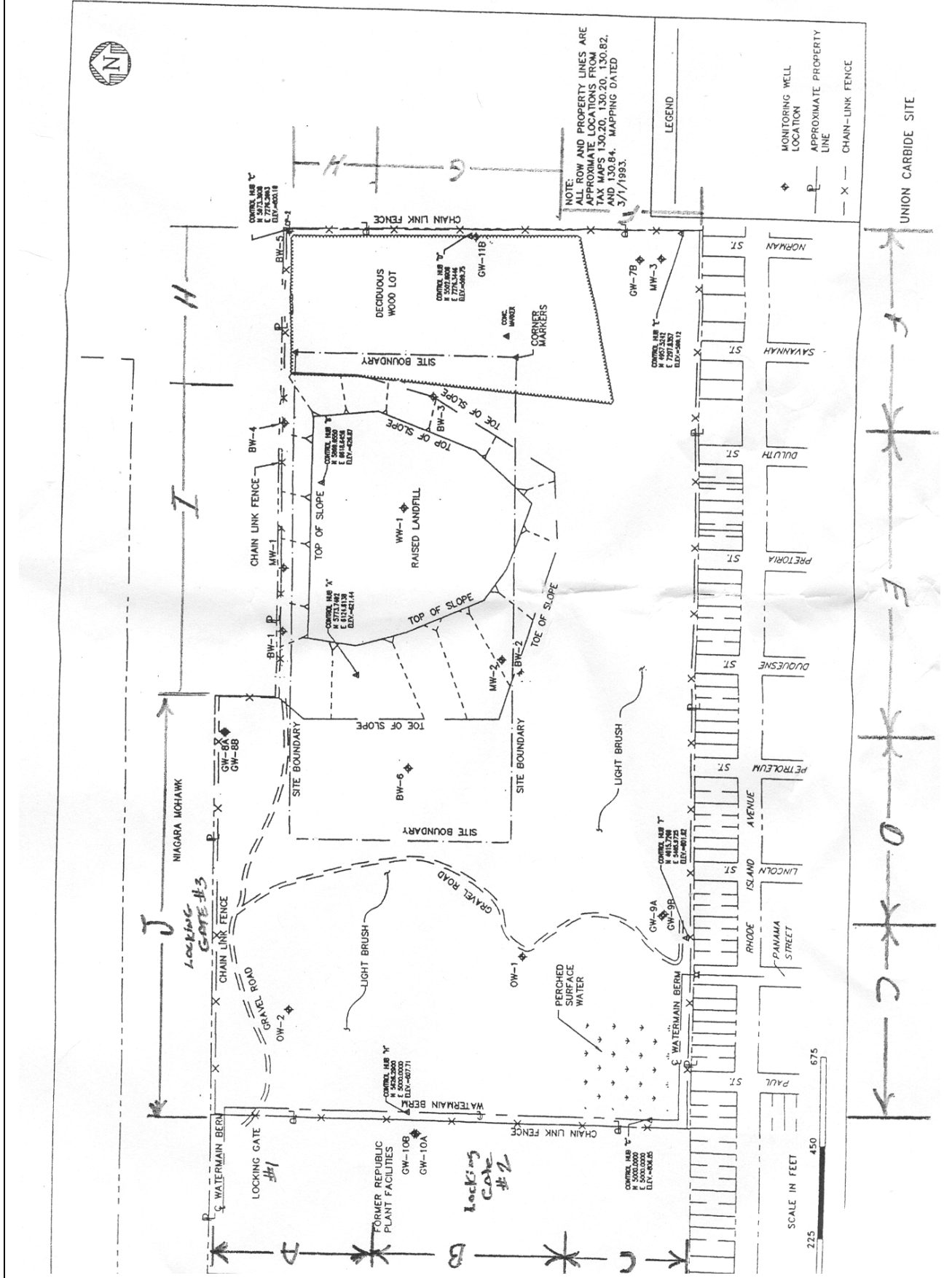
**COMMENTS**



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 AND 130.84, MAPPING DATED  
 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X- CHAIN-LINK FENCE



UNION CARBIDE SITE

SCALE IN FEET  
 225 450 675

**INSPECTION OF LANFILL FENCE & CAP & SURROUNDING AREA**

<b>Date</b>	<b>Time</b>	<b>Inspector</b>
9/16/09	4:10 PM	R. Bucci

<b>AREA</b>	<b>OK</b>	<b>DAMAGED</b>	<b>DATE REPAIRED</b>	<b>REMARKS</b>
<b>A</b>	X			
<b>B</b>	X			
<b>C</b>	X			
<b>D</b>	X			
<b>E</b>	X			
<b>F</b>	X			
<b>G</b>	X			
<b>H</b>	X			
<b>I</b>	X			
<b>J</b>	X			

<b>GATE</b>	<b>OK</b>	<b>DAMAGED</b>	<b>DATE REPAIRED</b>	<b>REMARKS</b>
<b>1</b>	X			
<b>2</b>	X			
<b>3</b>	X			

**COMMENTS:** Need to replace all locks this year they are in poor condition even though they work. Waiting for purchase approval

**CAP CONDITION COMMENTS:** ( Checking for erosion) Contractor is still working on cutting the cap, very thick grass.

**SUROUNDING AREA:**

**WELL INSPECTION**

<b>ID</b>	<b>WELL ID YES</b>	<b>WELL ID NO</b>	<b>LOCKED YES</b>	<b>LOCKED NO</b>	<b>COMMENTS</b>
<b>MW1-78</b>	X				
<b>MW2-78</b>	X				
<b>MW3-79</b>	X				
<b>BW1-86</b>	X				
<b>BW2-86</b>	X				
<b>BW3-86</b>	X				
<b>BW4-86</b>	X				
<b>BW5-86</b>	X				
<b>BW6-86</b>	X				
<b>WW1-86</b>	X				
<b>OW1-88</b>	X				
<b>OW2-88</b>	X				

**NYSDEC WELLS**

**INSTALLED SEPT/OCT 93**

<b>GW7B-93</b>	X				
<b>GW8A-93</b>	X				
<b>GW8B-93</b>	X				
<b>GW9A-93</b>	X				
<b>GW9B-93</b>	X				
<b>GW11B-93</b>	X				

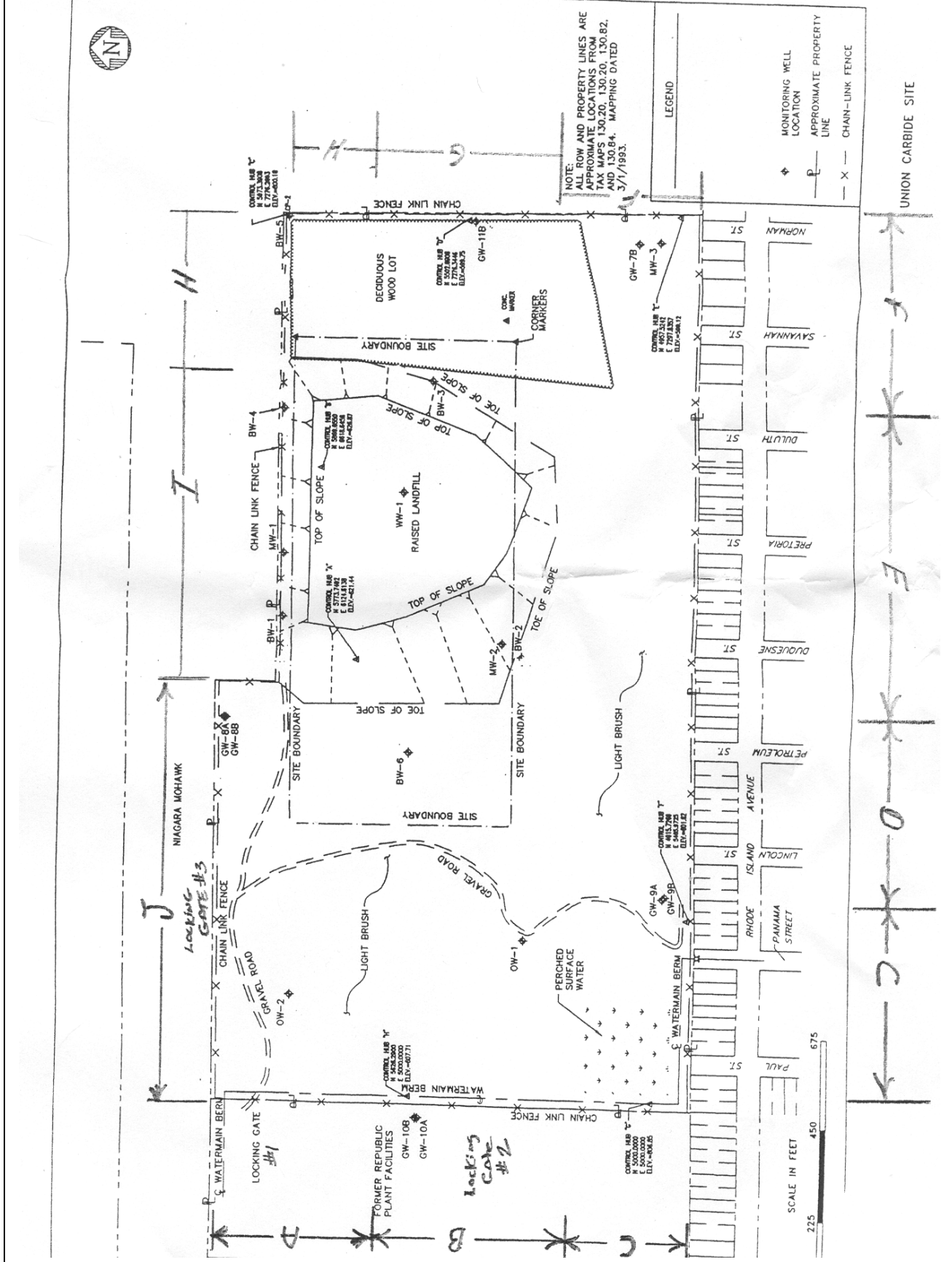
**COMMENTS**



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 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X- CHAIN-LINK FENCE



UNION CARBIDE SITE

SCALE IN FEET  
 225 450 675

## INSPECTION OF LANFILL FENCE & CAP & SURROUNDING AREA

Date	Time	Inspector
9/26/09	11:59 AM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J	X			

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:** Need to replace all locks this year they are in poor condition even though they work. Waiting for purchase approval

**CAP CONDITION COMMENTS:** ( Checking for erosion) Cap is completely cut

**SUROUNING AREA:**



**WELL INSPECTION**

ID	WELL ID	WELL ID	LOCKED	LOCKED	COMMENTS
	YES	NO	YES	NO	
MW1-78	X				
MW2-78	X				
MW3-79	X				
BW1-86	X				
BW2-86	X				
BW3-86	X				
BW4-86	X				
BW5-86	X				
BW6-86	X				
WW1-86	X				
OW1-88	X				
OW2-88	X				

**NYSDEC WELLS**

**INSTALLED SEPT/OCT 93**

GW7B-93	X				
GW8A-93	X				
GW8B-93	X				
GW9A-93	X				
GW9B-93	X				
GW11B-93	X				

**COMMENTS**



## INSPECTION OF LANFILL FENCE & CAP & SURROUNDING AREA

<b>Date</b>	<b>Time</b>	<b>Inspector</b>
10/01/09	4:00 PM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J	X			

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:** Need to replace all locks this year they are in poor condition even though they work. Waiting for purchase approval

**CAP CONDITION COMMENTS:** ( Checking for erosion) Cap is completely cut

**SUROUNING AREA:**

**WELL INSPECTION**

ID	WELL ID	WELL ID	LOCKED	LOCKED	COMMENTS
	YES	NO	YES	NO	
MW1-78	X				
MW2-78	X				
MW3-79	X				
BW1-86	X				
BW2-86	X				
BW3-86	X				
BW4-86	X				
BW5-86	X				
BW6-86	X				
WW1-86	X				
OW1-88	X				
OW2-88	X				

**NYSDEC WELLS**

**INSTALLED SEPT/OCT 93**

GW7B-93	X				
GW8A-93	X				
GW8B-93	X				
GW9A-93	X				
GW9B-93	X				
GW11B-93	X				

**COMMENTS**

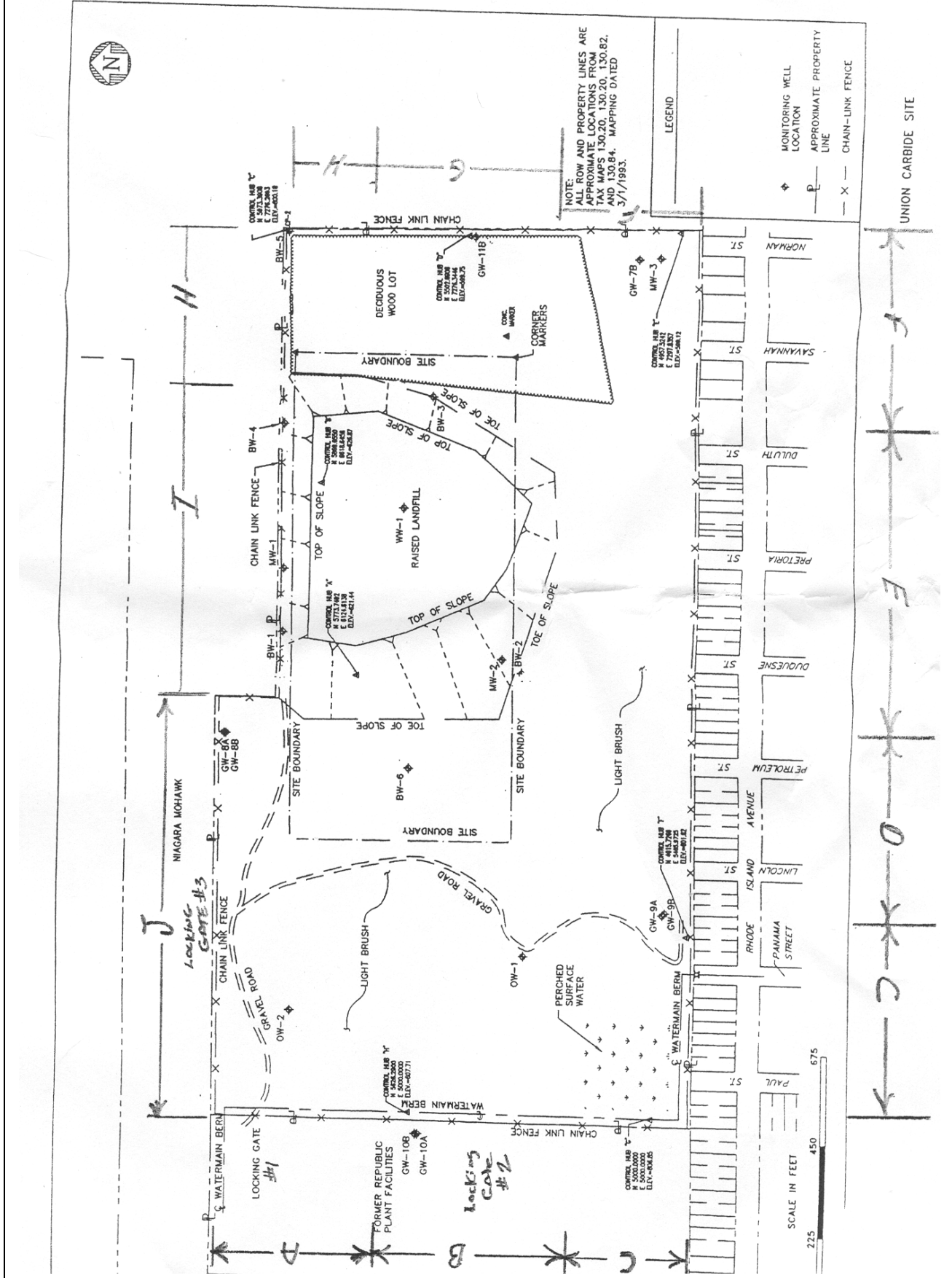


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 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X- CHAIN-LINK FENCE

UNION CARBIDE SITE



SCALE IN FEET  
 225 450 675

## INSPECTION OF LANFILL FENCE & CAP & SURROUNDING AREA

<b>Date</b>	<b>Time</b>	<b>Inspector</b>
10/08/09	8:10 AM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J	X			

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:** Need to replace all locks this year they are in poor condition even though they work. Waiting for purchase approval

**CAP CONDITION COMMENTS:** ( Checking for erosion) Cap is completely cut

**SUROUNING AREA:**

**WELL INSPECTION**

<b>ID</b>	<b>WELL ID YES</b>	<b>WELL ID NO</b>	<b>LOCKED YES</b>	<b>LOCKED NO</b>	<b>COMMENTS</b>
<b>MW1-78</b>	X				
<b>MW2-78</b>	X				
<b>MW3-79</b>	X				
<b>BW1-86</b>	X				
<b>BW2-86</b>	X				
<b>BW3-86</b>	X				
<b>BW4-86</b>	X				
<b>BW5-86</b>	X				
<b>BW6-86</b>	X				
<b>WW1-86</b>	X				
<b>OW1-88</b>	X				
<b>OW2-88</b>	X				

**NYSDEC WELLS**

**INSTALLED SEPT/OCT 93**

<b>GW7B-93</b>	X				Replaced concrete seal
<b>GW8A-93</b>	X				
<b>GW8B-93</b>	X				
<b>GW9A-93</b>	X				
<b>GW9B-93</b>	X				
<b>GW11B-93</b>	X				

**COMMENTS:** Old seal was removed and replaced on GW7B

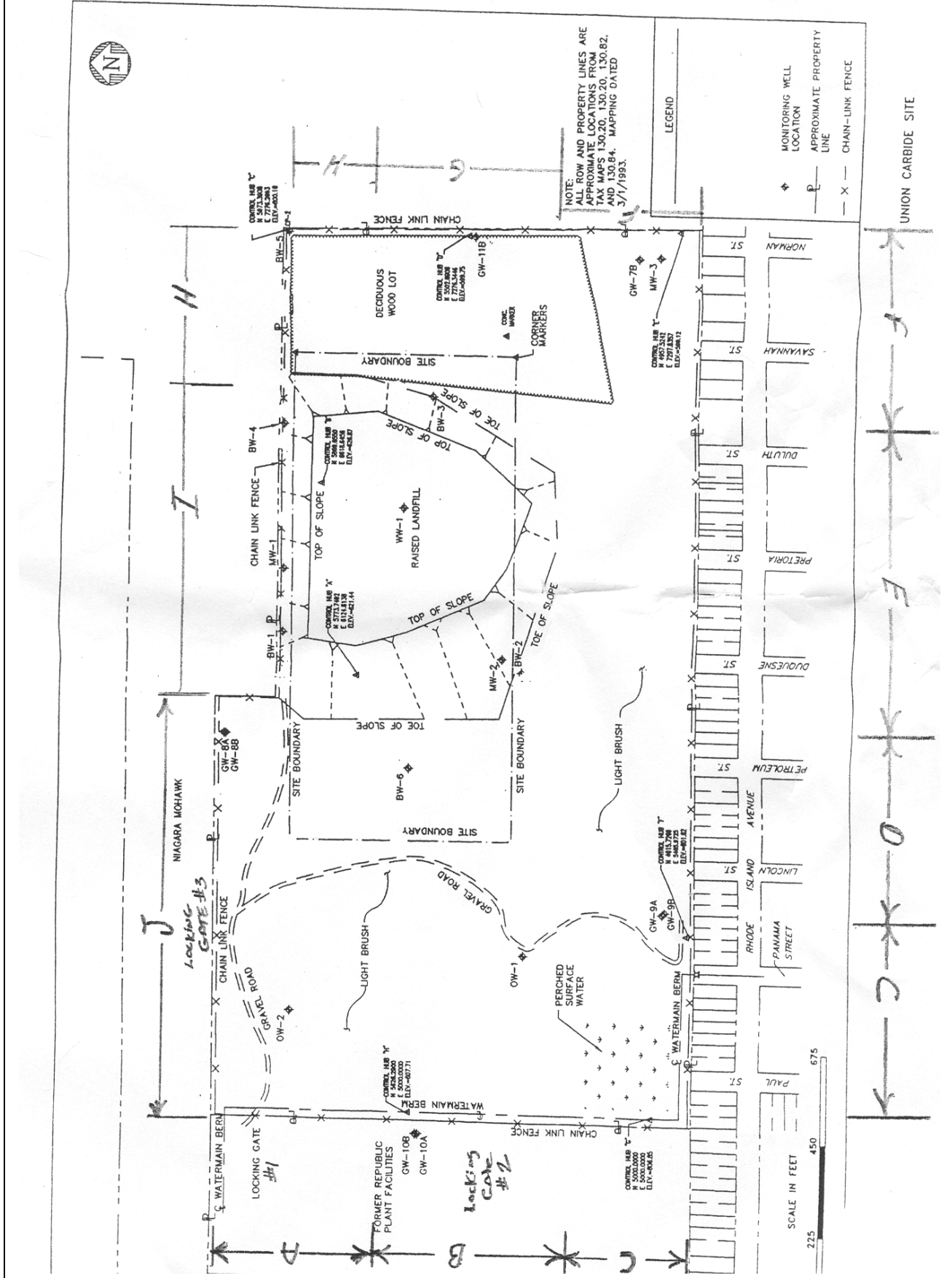


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 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X- CHAIN-LINK FENCE

UNION CARBIDE SITE



SCALE IN FEET  
 225 450 675



## INSPECTION OF LANFILL FENCE & CAP & SURROUNDING AREA

<b>Date</b>	<b>Time</b>	<b>Inspector</b>
10/17/09	4:10 PM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J	X			

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:** Need to replace all locks this year they are in poor condition even though they work. Waiting for purchase approval

**CAP CONDITION COMMENTS:** ( Checking for erosion) Cap is completely cut

**SUROUNING AREA:**

### WELL INSPECTION

ID	WELL ID	WELL ID	LOCKED	LOCKED	COMMENTS
	YES	NO	YES	NO	
MW1-78	X				
MW2-78	X				
MW3-79	X				
BW1-86	X				
BW2-86	X				
BW3-86	X				
BW4-86	X				
BW5-86	X				
BW6-86	X				
WW1-86	X				
OW1-88	X				
OW2-88	X				

### NYSDEC WELLS

INSTALLED SEPT/OCT 93

GW7B-93	X				
GW8A-93	X				
GW8B-93	X				
GW9A-93	X				
GW9B-93	X				
GW11B-93	X				

COMMENTS:

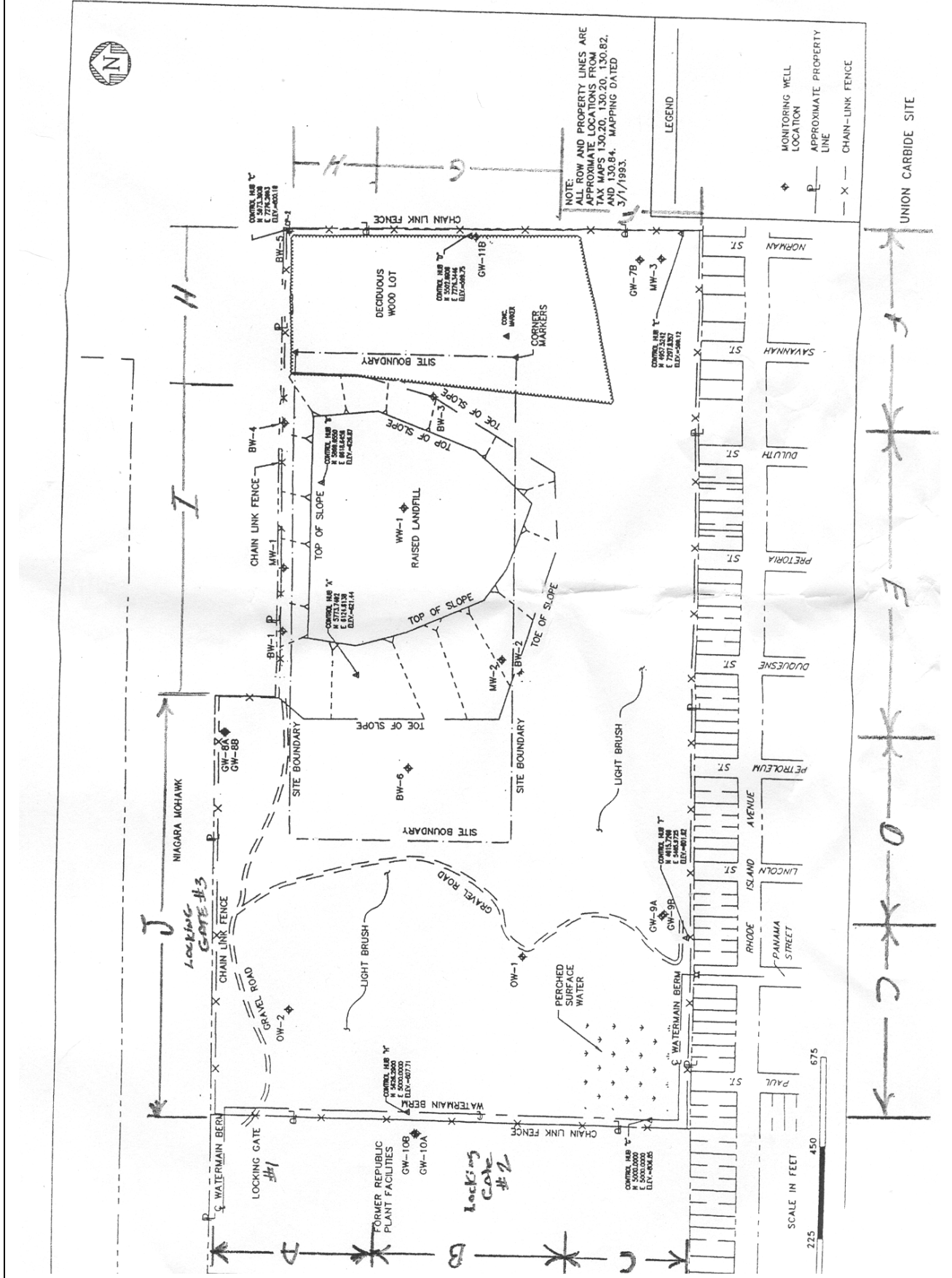


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 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X- CHAIN-LINK FENCE

UNION CARBIDE SITE



SCALE IN FEET  
 225 450 675

## INSPECTION OF LANFILL FENCE & CAP & SURROUNDING AREA

Date	Time	Inspector
10/23/09	8:45 AM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J	X			

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:** Need to replace all locks this year they are in poor condition even though they work. Waiting for purchase approval

**CAP CONDITION COMMENTS:** ( Checking for erosion)

**SUROUNING AREA:**

### WELL INSPECTION

ID	WELL ID		LOCKED		COMMENTS
	YES	NO	YES	NO	
MW1-78	X				
MW2-78	X				
MW3-79	X				
BW1-86	X				
BW2-86	X				
BW3-86	X				
BW4-86	X				
BW5-86	X				
BW6-86	X				
WW1-86	X				
OW1-88	X				
OW2-88	X				

### NYSDEC WELLS

INSTALLED SEPT/OCT 93

GW7B-93	X				
GW8A-93	X				
GW8B-93	X				
GW9A-93	X				
GW9B-93	X				
GW11B-93	X				

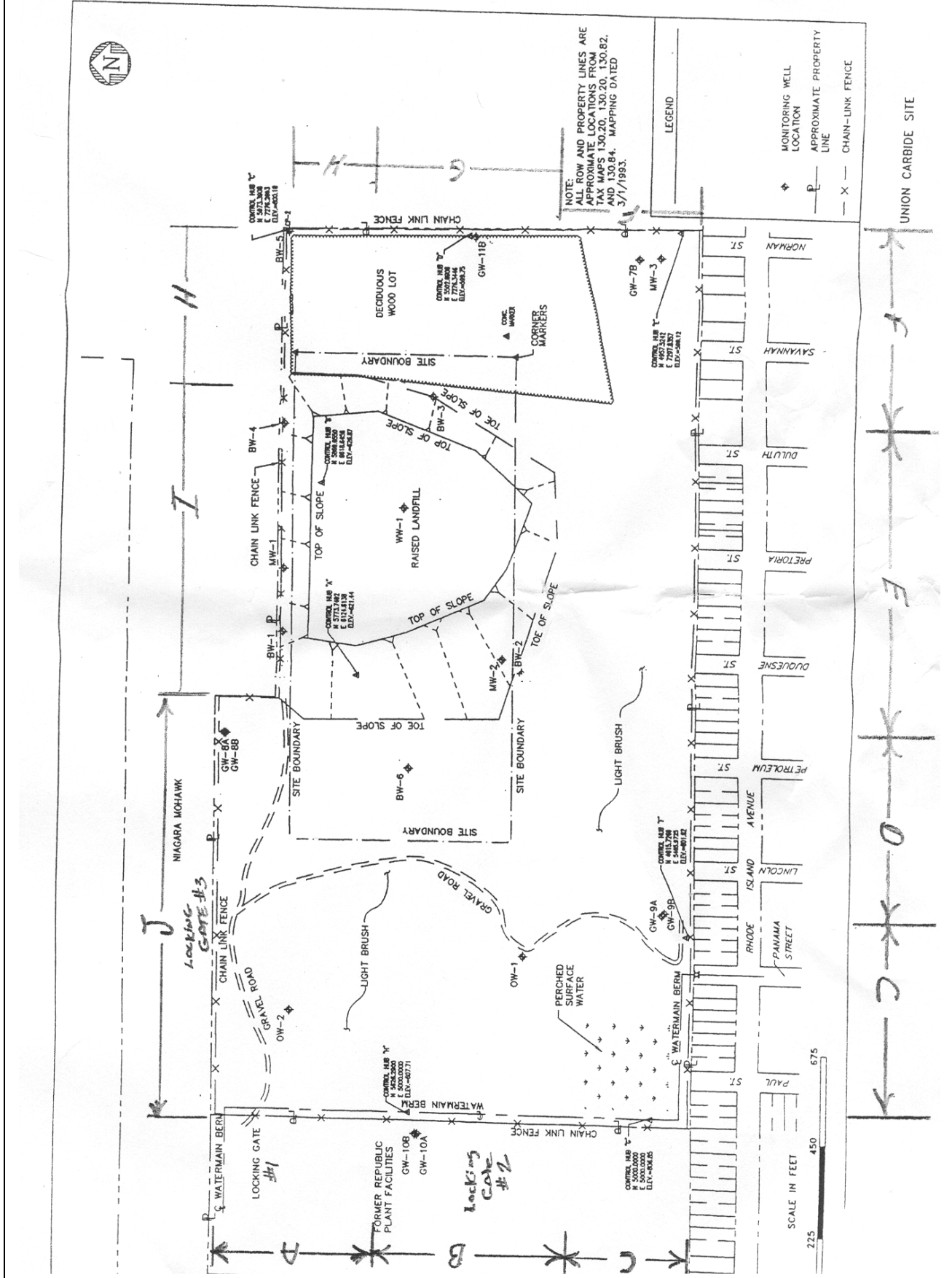
COMMENTS:



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 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X- CHAIN-LINK FENCE



SCALE IN FEET  
 225 450 675

UNION CARBIDE SITE

## INSPECTION OF LANFILL FENCE & CAP & SURROUNDING AREA

Date	Time	Inspector
11/09/09	12:00 PM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H		X	11/16/09	8 Ft. Opening cut
I	X			
J	X			

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:** Locks arrived

**CAP CONDITION COMMENTS:** ( Checking for erosion)

**SURROUNDING AREA:**

### WELL INSPECTION

ID	WELL ID	WELL ID	LOCKED	LOCKED	COMMENTS
	YES	NO	YES	NO	
MW1-78	X				
MW2-78	X				
MW3-79	X				
BW1-86	X				
BW2-86	X				
BW3-86	X				
BW4-86	X				
BW5-86	X				
BW6-86	X				
WW1-86	X				
OW1-88	X				
OW2-88	X				

### NYSDEC WELLS

INSTALLED SEPT/OCT 93

GW7B-93	X				
GW8A-93	X				
GW8B-93	X				
GW9A-93	X				
GW9B-93	X				
GW11B-93	X				

COMMENTS:

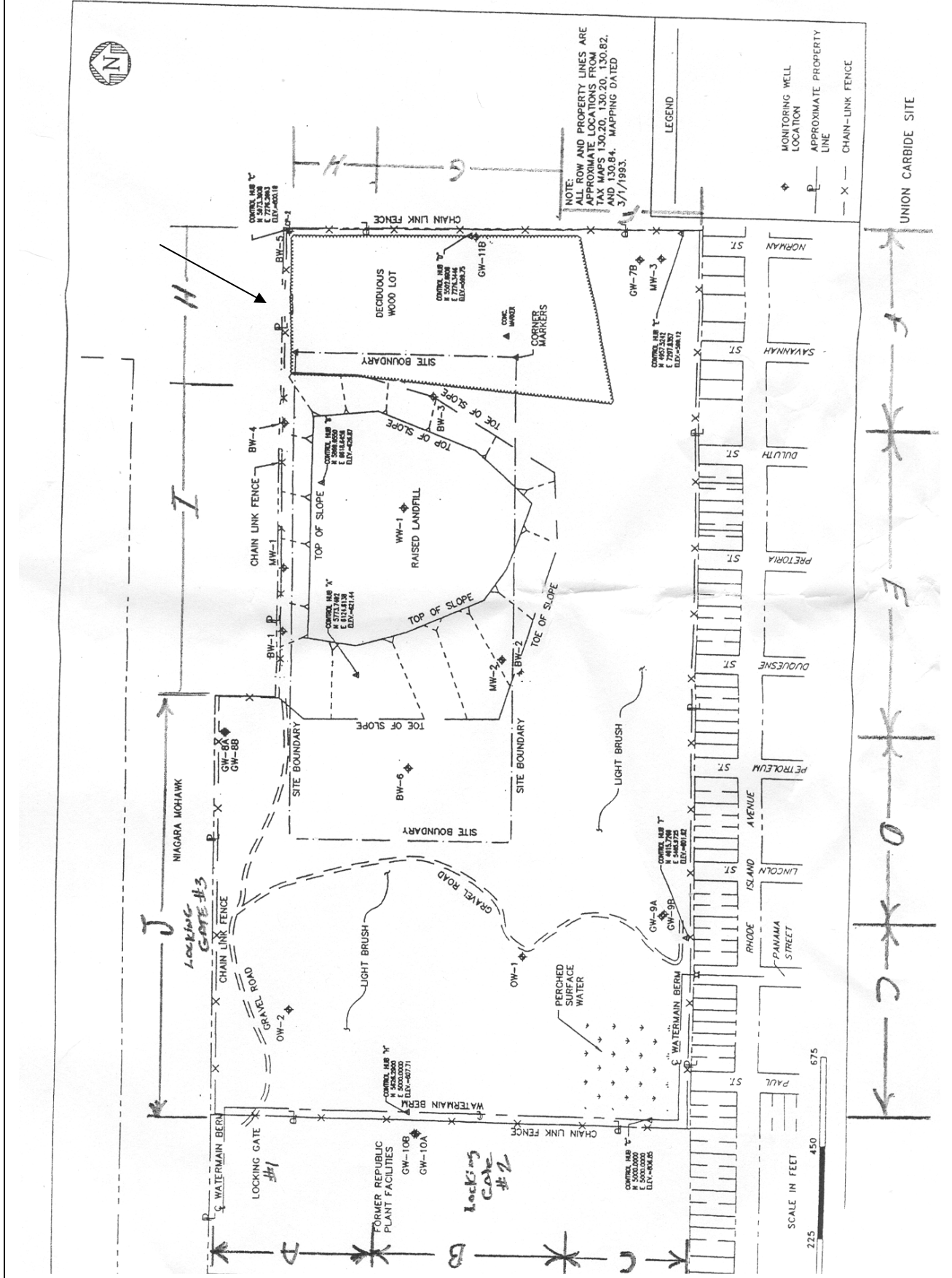




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 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- - - CHAIN-LINK FENCE



UNION CARBIDE SITE

SCALE IN FEET  
 225 450 675

## INSPECTION OF LANFILL FENCE & CAP & SURROUNDING AREA

Date	Time	Inspector
11/28/09	8:05 AM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J	X			

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:**

**CAP CONDITION COMMENTS:** ( Checking for erosion)

**SURROUNDING AREA:**

**WELL INSPECTION**

ID	WELL ID	WELL ID	LOCKED	LOCKED	COMMENTS
	YES	NO	YES	NO	
MW1-78	X				
MW2-78	X				
MW3-79	X				
BW1-86	X				
BW2-86	X				
BW3-86	X				
BW4-86	X				
BW5-86	X				
BW6-86	X				
WW1-86	X				
OW1-88	X				
OW2-88	X				

**NYSDEC WELLS**

**INSTALLED SEPT/OCT 93**

GW7B-93	X				
GW8A-93	X				
GW8B-93	X				
GW9A-93	X				
GW9B-93	X				
GW11B-93	X				

**COMMENTS**

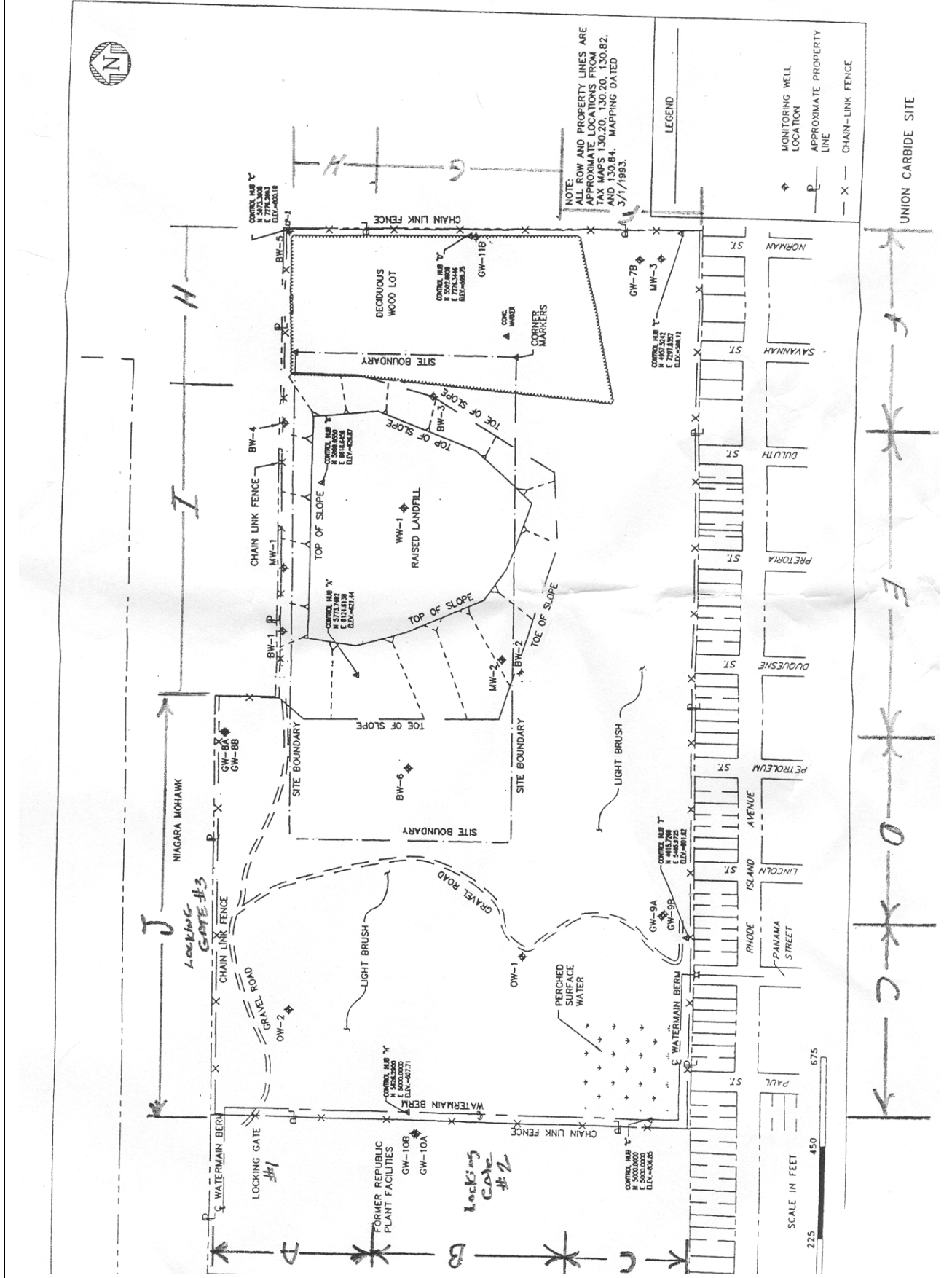


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 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X- CHAIN-LINK FENCE

UNION CARBIDE SITE



## INSPECTION OF LANFILL FENCE & CAP & SURROUNDING AREA

Date	Time	Inspector
12/2/09	2:00 PM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J	X			

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:**

**CAP CONDITION COMMENTS:** ( Checking for erosion)

**SURROUNDING AREA:**

### WELL INSPECTION

ID	WELL ID	WELL ID	LOCKED	LOCKED	COMMENTS
	YES	NO	YES	NO	
MW1-78	X				
MW2-78	X				
MW3-79	X				
BW1-86	X				
BW2-86	X				
BW3-86	X				
BW4-86	X				
BW5-86	X				
BW6-86	X				
WW1-86	X				
OW1-88	X				
OW2-88	X				

### NYSDEC WELLS

### INSTALLED SEPT/OCT 93

GW7B-93	X				
GW8A-93	X				
GW8B-93	X				
GW9A-93	X				
GW9B-93	X				
GW11B-93	X				

### COMMENTS

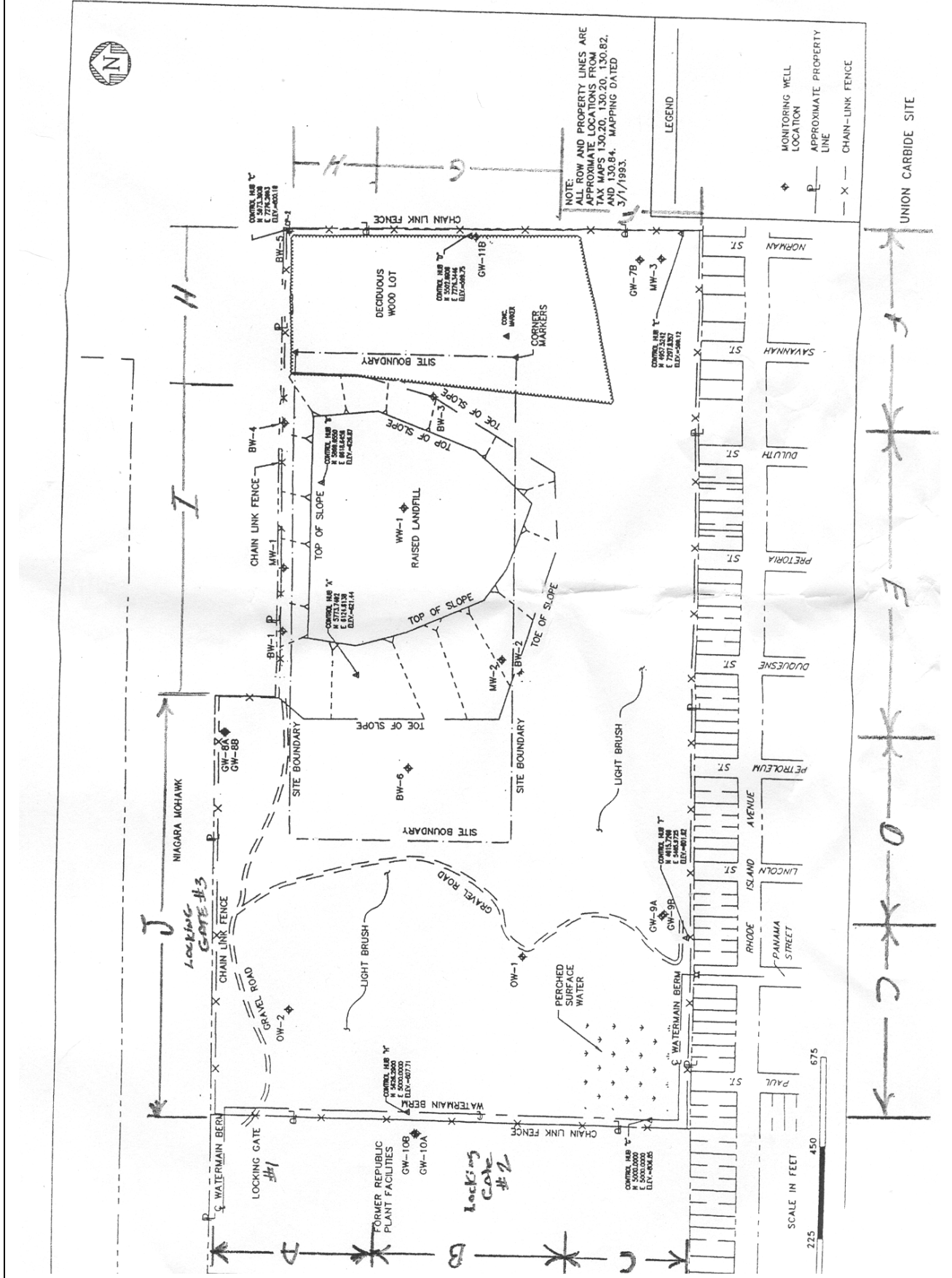


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 AND 130.84, MAPPING DATED  
 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X- CHAIN-LINK FENCE

UNION CARBIDE SITE



SCALE IN FEET  
 225 450 675

## INSPECTION OF LANFILL FENCE & CAP & SURROUNDING AREA

Date	Time	Inspector
12/9/09	9:00 AM	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J	X			

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:**

**CAP CONDITION COMMENTS:** ( Checking for erosion)

**SURROUNDING AREA:**



**WELL INSPECTION**

ID	WELL ID	WELL ID	LOCKED	LOCKED	COMMENTS
	YES	NO	YES	NO	
MW1-78	X				
MW2-78	X				
MW3-79	X				
BW1-86	X				
BW2-86	X				
BW3-86	X				
BW4-86	X				
BW5-86	X				
BW6-86	X				
WW1-86	X				
OW1-88	X				
OW2-88	X				

**NYSDEC WELLS**

**INSTALLED SEPT/OCT 93**

GW7B-93	X				
GW8A-93	X				
GW8B-93	X				
GW9A-93	X				
GW9B-93	X				
GW11B-93	X				

**COMMENTS**

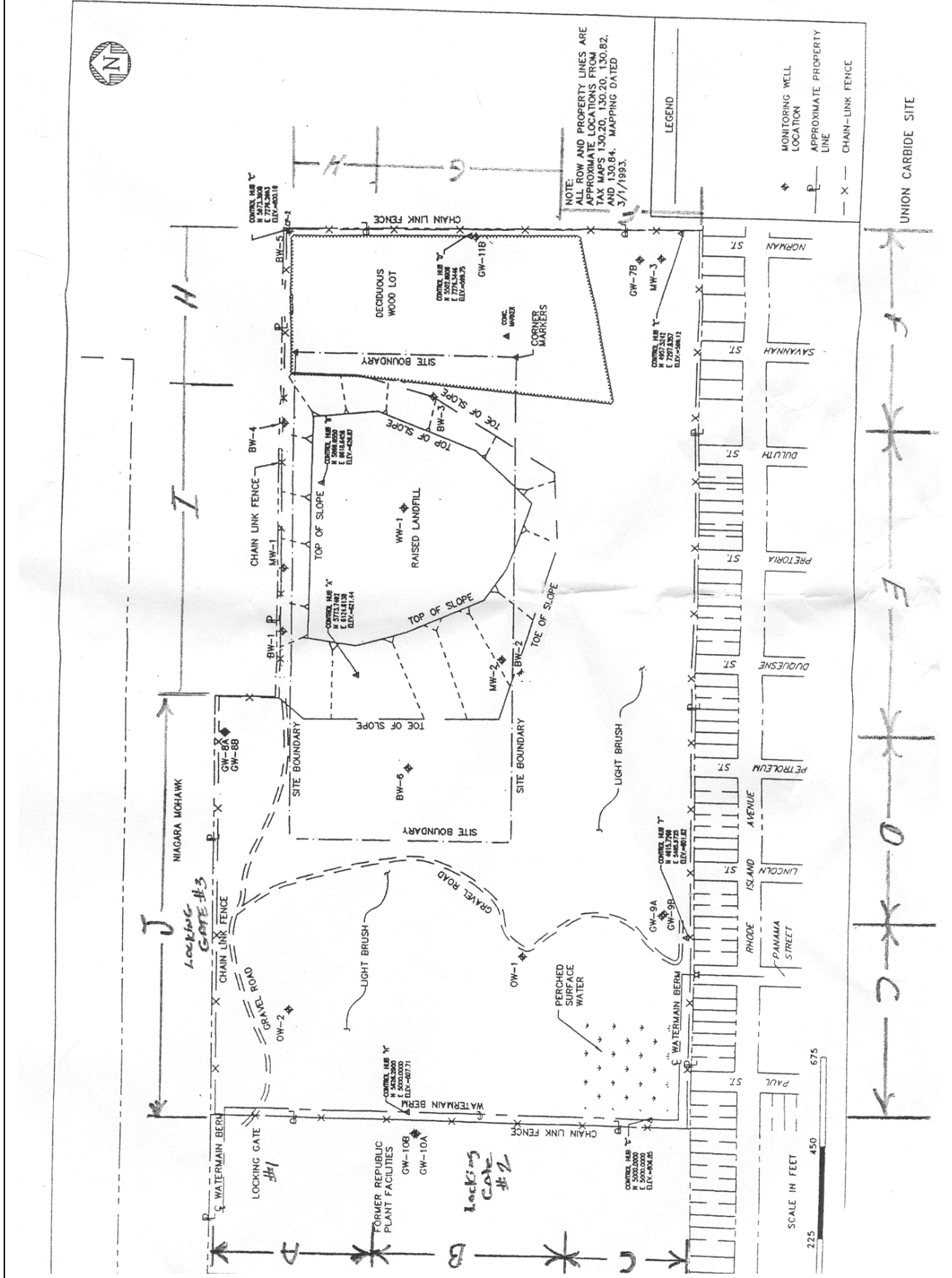


NOTE:  
 ALL ROW AND PROPERTY LINES ARE  
 APPROXIMATE LOCATIONS FROM  
 TAX MAPS 130.20, 130.20, 130.82,  
 AND 130.84, MAPPING DATED  
 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X- CHAIN-LINK FENCE

UNION CARBIDE SITE



SCALE IN FEET  
 225 450 675

## INSPECTION OF LANFILL FENCE & CAP & SURROUNDING AREA

Date	Time	Inspector
11/19/09	10:45 Am	R. Bucci

AREA	OK	DAMAGED	DATE REPAIRED	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J	X			

GATE	OK	DAMAGED	DATE REPAIRED	REMARKS
1	X			
2	X			
3	X			

**COMMENTS:**

**CAP CONDITION COMMENTS:** ( Checking for erosion)

**SURROUNDING AREA:**

**WELL INSPECTION**

ID	WELL ID	WELL ID	LOCKED	LOCKED	COMMENTS
	YES	NO	YES	NO	
MW1-78	X				
MW2-78	X				
MW3-79	X				
BW1-86	X				
BW2-86	X				
BW3-86	X				
BW4-86	X				
BW5-86	X				
BW6-86	X				
WW1-86	X				
OW1-88	X				
OW2-88	X				

**NYSDEC WELLS**

**INSTALLED SEPT/OCT 93**

GW7B-93	X				
GW8A-93	X				
GW8B-93	X				
GW9A-93	X				
GW9B-93	X				
GW11B-93	X				

**COMMENTS**

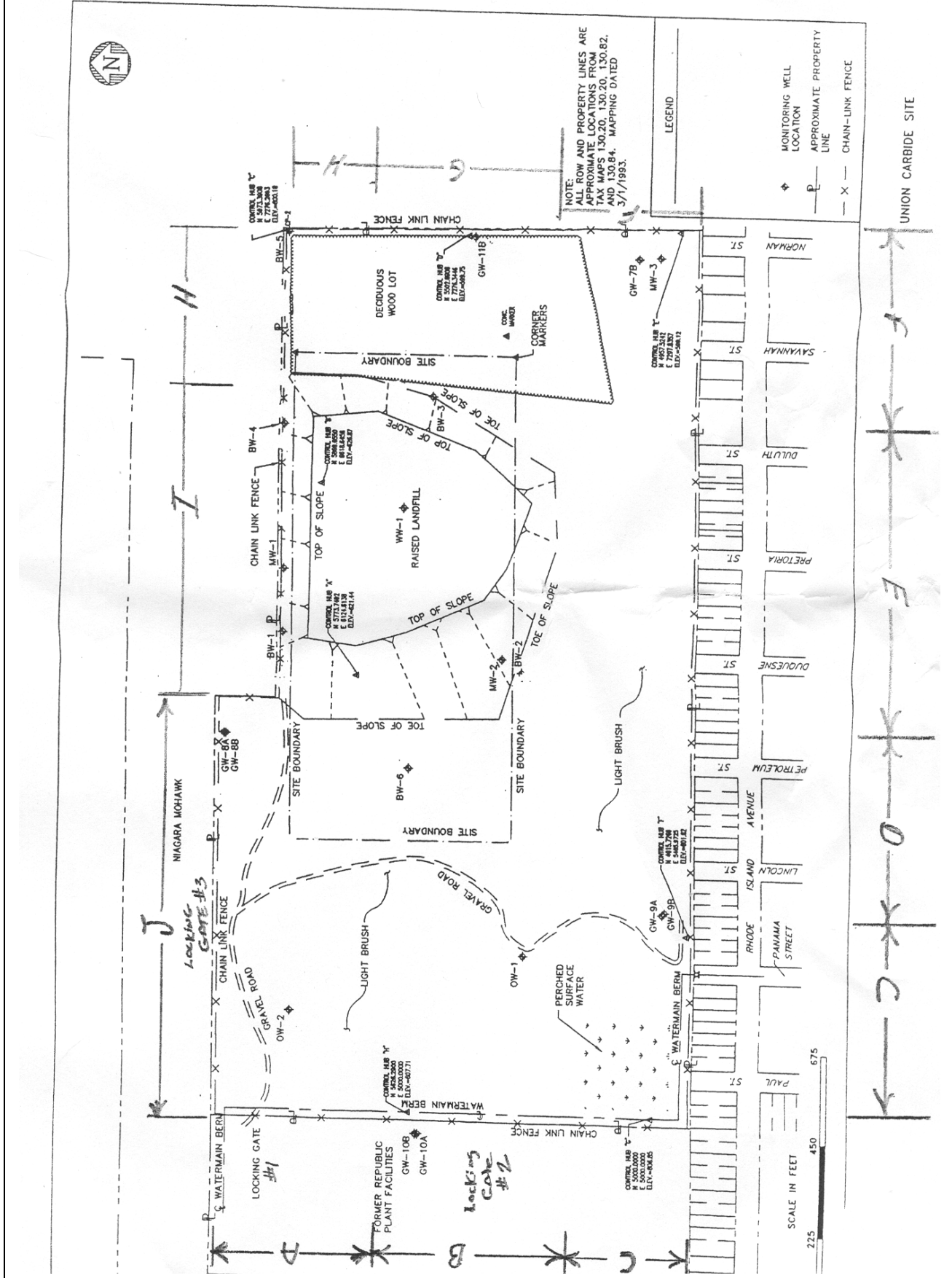


NOTE:  
 ALL ROW AND PROPERTY LINES ARE  
 APPROXIMATE LOCATIONS FROM  
 TAX MAPS 130.20, 130.20, 130.82,  
 AND 130.84, MAPPING DATED  
 5/7/1993.

LEGEND

- ◆ MONITORING WELL LOCATION
- APPROXIMATE PROPERTY LINE
- X- CHAIN-LINK FENCE

UNION CARBIDE SITE



SCALE IN FEET  
 225 450 675