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Level IV Data Package

MWH Group 245247

Method: EPA 300.1B

2806240538

2806240540

DBP QC Checklist

Analysis Date: 07-07-08 Analyst: Raja

Instrument: IC12

QC'd by 9H Date 7/10/08

Batch # 1 + 2

Calibration including QCS(Secondary Source)

Correlation Coefficient of calibration curve for linear curve is 0.995 or better. (0.99 for quadratic)
 MA CLO2 CLO3 BR

Initial QC Check Samples (MCV, CCB, MBLANK, MRL) to be analyzed with every batch (up to 20 samples) or part thereof

MCV is analyzed before samples:

CLO2/CLO3: 90-110% (180-220ppb)

BR: 90-110% (90-110ppb)

CCB is analyzed before samples and after MCV and HCV

MBLANK is analyzed before samples. CLO2/CLO3

BR, if present, is \leq half of the MRL.

CLO2: MRL at 10ppb is within 75%-125% (7.5-12.5ppb)

CLO3: MRL at 10ppb is within 75%-125% (7.5-12.5ppb)

BR: MRL at 5.0ppb is within 75%-125% (3.75-6.25ppb)

LCS/LCSD: Accepted criteria are between 90-110% recovery

CLO2: 180-220ppb for 200ppb

CLO3: 180-220ppb for 200ppb

BR: 90-110ppb for 100ppb

One pair analyzed per batch (up to 20 samples) or part thereof

MS/MSD: Acceptance criteria are between 80%-120% recovery.

CLO2: 80-120ppb for 100ppb spike

CLO3: 80-120ppb for 100ppb spike

BR: 40.0-60.0ppb for 50ppb spike

RPD between MS/MSD is within 15%

One pair, and one MS is analyzed per batch (up to 20 samples) or part thereof

Continuing Calibration Verification (MCV and HCV) are required

MCV recovery is between 90-110%

CLO2 (180-220ppb)

CLO3 (180-220ppb)

BR (90-110ppb)

HCV recovery is between 90-110%

CLO2 (720-880ppb)

CLO3 (720-880ppb)

BR (360-440ppb)

Samples

All samples for CLO3 and BR are analyzed within 28 days of collection.

All samples for CLO2 are analyzed within 14 days of collection.

QIR

QIR needed for failed QC

QIR needed for samples analyzed outside of hold time

MS/MM 7/12/08

No.	Sample Name	Comment	Time	Dil.Fac.	Amount ppb Br CD 1	
1,	WASH,		07/05/08 12:05,	1.0,	n.a.	
2,	autocal1,		07/05/08 12:37,	1.0,	n.a.	
3,	autocal2,	S1-10/5/10	07/05/08 13:09,	1.0,	5.3813,	
4,	autocal3,	S2-20/10/20	07/05/08 13:42,	1.0,	6.6044,	
5,	autocal4,	S3-100/50/100	07/05/08 14:14,	1.0,	45.3355,	
6,	autocal5,	S4-200/100/200	07/05/08 14:47,	1.0,	100.3002,	
7,	autocal6,	S5-400/200/400	07/05/08 15:19,	1.0,	212.0343,	
8,	autocal7,	S6-800/400/800	07/05/08 15:51,	1.0,	394.5710,	
9,	WASH,	S6-800/400/800	07/07/08 11:13,	1.0,	n.a.	
10,	MCV,	200/100/200	07/07/08 11:46,	1.0,	101.0986,	101%
11,	CCB,		07/07/08 12:18,	1.0,	n.a.	
12,	MRLCHK,	S1-10/5/10	07/07/08 12:50,	1.0,	9.3554,	
13,	MBLK,		07/07/08 13:23,	1.0,	n.a.	
14,	LCS1,	RAJA08061-9	07/07/08 13:55,	1.0,	✓ 93.6343,	93.6%
15,	LCS2,	200/100/200	07/07/08 14:28,	1.0,	✓ 93.9825,	94.0%
16,	2806240207_1/500,	BR	07/07/08 15:00,	500.0,	✓ 115183.2901,	
17,	2807020421_1/2,	BR	07/07/08 15:32,	2.0,	✓ 689.0703,	
18,	2806260152_1/2,	BR	07/07/08 16:05,	2.0,	✓ 622.0496,	
19,	2806240551,	BR	07/07/08 16:37,	1.0,	✓ 47.0085,	
20,	2806250382,	BR	07/07/08 17:10,	1.0,	✓ 92.1467,	
21,	2806250382MS,		07/07/08 17:42,	1.0,	✓ 135.4247,	453-86.6%
22,	2806250382MSD,		07/07/08 18:14,	1.0,	✓ 138.1613,	46.0-92.0%
23,	2806250384,	BR	07/07/08 18:47,	1.0,	✓ 92.2226,	
24,	MRLCHK,	RERUN	07/07/08 20:03,	1.0,	✓ 5.0065,	100%
25,	2806250677,	BR	07/07/08 20:36,	1.0,	✓ 134.6938,	
26,	2806250678_1/10,	BR	07/07/08 21:08,	10.0,	✓ 779.4830,	
27,	2806250680_1/10,	BR	07/07/08 21:40,	10.0,	✓ 3576.6921,	
28,	2806250683_1/5,	BR	07/07/08 22:13,	5.0,	✓ 690.8375,	
29,	MCV,	200/100/200	07/07/08 22:45,	1.0,	106.6035,	107%
30,	CCB,		07/07/08 23:18,	1.0,	n.a.	
31,	2806250594,	BR	07/07/08 23:50,	1.0,	✓ 18.7564,	
32,	2806250594MS,		07/08/08 00:22,	1.0,	✓ 70.5720,	518-104%
33,	2806250594MSD,		07/08/08 00:55,	1.0,	✓ 68.9427,	50.2-100%
34,	2806250692,	BR	07/08/08 01:27,	1.0,	✓ 161.4198,	
35,	2806250694,	BR	07/08/08 02:00,	1.0,	✓ 249.6026,	
36,	2806250702_1/2,	BR	07/08/08 02:32,	2.0,	✓ 477.9041,	
37,	2806250704,	BR	07/08/08 03:04,	1.0,	✓ 195.0613,	
38,	2806250706,	BR	07/08/08 03:37,	1.0,	✓ 211.3901,	
39,	2806250710,	BR	07/08/08 04:09,	1.0,	✓ 243.7479,	
40,	2806260399_1/100,	BR	07/08/08 04:42,	100.0,	✓ 15679.7394,	
41,	2806260401,	BR	07/08/08 05:14,	1.0,	✓ 171.3483,	
42,	2806260403,	BR	07/08/08 05:46,	1.0,	✓ 142.6251,	
43,	HCV,	800/400/800	07/08/08 06:19,	1.0,	412.0323,	103%
44,	CCB,		07/08/08 06:51,	1.0,	n.a.	
45,	MCV,		07/08/08 07:24,	1.0,	103.3462,	
46,	CCB,		07/08/08 07:56,	1.0,	n.a.	
47,	MRLCHK,		07/08/08 08:28,	1.0,	4.8493,	
48,	MBLK,		07/08/08 09:01,	1.0,	n.a.	

No.	Sample Name	Comment	Time	Dil.Fac.	Amount ppb Br CD_1
49,	LCS1,		07/08/08 09:33,	1.0,	101.7136,
50,	LCS2,		07/08/08 10:06,	1.0,	100.3834,
51,	2806200081,	CLO3	07/08/08 10:38,	1.0,	62.2876,
52,	2806200081MS,		07/08/08 11:10,	1.0,	107.4716,
53,	2806200081MSD,		07/08/08 11:43,	1.0,	111.4570,
54,	2806200082,	CLO3	07/08/08 12:15,	1.0,	64.6492,
55,	2806200083,	CLO3	07/08/08 12:48,	1.0,	63.3453,
56,	2806200084-DNR,	CLO3	07/08/08 13:20,	1.0,	n.a.
57,	2806200085,	CLO3	07/08/08 14:56,	1.0,	266.9153,
58,	2806200086,	CLO3	07/08/08 15:28,	1.0,	390.3072,
59,	2806200087,	CLO3	07/08/08 16:01,	1.0,	653.0707,
60,	2806240472_1/2,	CLO3	07/08/08 16:33,	2.0,	80.7149,
61,	2806240473,	CLO3	07/08/08 17:05,	1.0,	158.9048,
62,	2806240474_1/2,	CLO3	07/08/08 17:38,	2.0,	143.3683,
63,	MCV,	200/100/200	07/08/08 18:10,	1.0,	106.4219,
64,	CCB,		07/08/08 18:42,	1.0,	n.a.
65,	2806240475_1/2,	CLO3	07/08/08 19:15,	2.0,	81.0880,
66,	2806240538_1/5,	CLO3	07/08/08 19:47,	5.0,	1074.5130,
67,	2806240540_1/5000,	CLO3	07/08/08 20:20,	5000.0,	n.a.
68,	2806260285,	CLO3	07/08/08 20:52,	1.0,	101.6033,
69,	2806260285MS,		07/08/08 21:24,	1.0,	115.8710,
70,	2806260285MSD,		07/08/08 21:57,	1.0,	116.3292,
71,	2806260294,	CLO3	07/08/08 22:29,	1.0,	59.9905,
72,	2806260295,	CLO3	07/08/08 23:02,	1.0,	60.5939,
73,	2806260296,	CLO3	07/08/08 23:34,	1.0,	63.6903,
74,	2806260297,	CLO3	07/09/08 00:06,	1.0,	70.5797,
75,	2806260298,	CLO3	07/09/08 00:39,	1.0,	21.0147,
76,	2806260299,	CLO3	07/09/08 01:11,	1.0,	26.2434,
77,	HCV,		07/09/08 01:44,	1.0,	402.9407,
78,	CCB,		07/09/08 02:16,	1.0,	n.a.

No.	Sample Name	Comment	Time	Dil.Fac.	Amount ppb CIO2 CD_1
1,	WASH,		07/05/08 12:05,	1.0,	n.a.
2,	autocal1,		07/05/08 12:37,	1.0,	n.a.
3,	autocal2,	S1-10/5/10	07/05/08 13:09,	1.0,	9.6646,
4,	autocal3,	S2-20/10/20	07/05/08 13:42,	1.0,	20.4070,
5,	autocal4,	S3-100/50/100	07/05/08 14:14,	1.0,	96.5813,
6,	autocal5,	S4-200/100/200	07/05/08 14:47,	1.0,	199.8512,
7,	autocal6,	S5-400/200/400	07/05/08 15:19,	1.0,	397.5147,
8,	autocal7,	S6-800/400/800	07/05/08 15:51,	1.0,	801.7012,
9,	WASH,	S6-800/400/800	07/07/08 11:13,	1.0,	n.a.
10,	MCV,	200/100/200	07/07/08 11:46,	1.0,	198.6501,
11,	CCB,		07/07/08 12:18,	1.0,	n.a.
12,	MRLCHK,	S1-10/5/10	07/07/08 12:50,	1.0,	13.3451,
13,	MBLK,		07/07/08 13:23,	1.0,	n.a.
14,	LCS1,	RAJA08061-9	07/07/08 13:55,	1.0,	198.9921,
15,	LCS2,	200/100/200	07/07/08 14:28,	1.0,	201.3401,
16,	2806240207_1/500,	BR	07/07/08 15:00,	500.0,	n.a.
17,	2807020421_1/2,	BR	07/07/08 15:32,	2.0,	n.a.
18,	2806260152_1/2,	BR	07/07/08 16:05,	2.0,	n.a.
19,	2806240551,	BR	07/07/08 16:37,	1.0,	5.2849,
20,	2806250382,	BR	07/07/08 17:10,	1.0,	8.6258,
21,	2806250382MS,		07/07/08 17:42,	1.0,	107.9622,
22,	2806250382MSD,		07/07/08 18:14,	1.0,	95.7954,
23,	2806250384,	BR	07/07/08 18:47,	1.0,	9.9935,
24,	MRLCHK,	RERUN	07/07/08 20:03,	1.0,	10.7512,
25,	2806250677,	BR	07/07/08 20:36,	1.0,	n.a.
26,	2806250678_1/10,	BR	07/07/08 21:08,	10.0,	n.a.
27,	2806250680_1/10,	BR	07/07/08 21:40,	10.0,	n.a.
28,	2806250683_1/5,	BR	07/07/08 22:13,	5.0,	n.a.
29,	MCV,	200/100/200	07/07/08 22:45,	1.0,	198.7886,
30,	CCB,		07/07/08 23:18,	1.0,	n.a.
31,	2806250594,	BR	07/07/08 23:50,	1.0,	n.a.
32,	2806250594MS,		07/08/08 00:22,	1.0,	99.0263,
33,	2806250594MSD,		07/08/08 00:55,	1.0,	103.3746,
34,	2806250692,	BR	07/08/08 01:27,	1.0,	n.a.
35,	2806250694,	BR	07/08/08 02:00,	1.0,	n.a.
36,	2806250702_1/2,	BR	07/08/08 02:32,	2.0,	n.a.
37,	2806250704,	BR	07/08/08 03:04,	1.0,	n.a.
38,	2806250706,	BR	07/08/08 03:37,	1.0,	n.a.
39,	2806250710,	BR	07/08/08 04:09,	1.0,	n.a.
40,	2806260399_1/100,	BR	07/08/08 04:42,	100.0,	n.a.
41,	2806260401,	BR	07/08/08 05:14,	1.0,	n.a.
42,	2806260403,	BR	07/08/08 05:46,	1.0,	n.a.
43,	HCV,	800/400/800	07/08/08 06:19,	1.0,	798.5732,
44,	CCB,		07/08/08 06:51,	1.0,	n.a.
45,	MCV,		07/08/08 07:24,	1.0,	197.7262,
46,	CCB,		07/08/08 07:56,	1.0,	n.a.
47,	MRLCHK,		07/08/08 08:28,	1.0,	9.7543,
48,	MBLK,		07/08/08 09:01,	1.0,	n.a.

No.	Sample Name	Comment	Time	Dil.Fac.	Amount ppb CLO2 CD 1
49,	LCS1,		07/08/08 09:33,	1.0,	202.7975,
50,	LCS2,		07/08/08 10:06,	1.0,	200.0199,
51,	2806200081,	CLO3	07/08/08 10:38,	1.0,	n.a.
52,	2806200081MS,		07/08/08 11:10,	1.0,	93.1789,
53,	2806200081MSD,		07/08/08 11:43,	1.0,	93.9768,
54,	2806200082,	CLO3	07/08/08 12:15,	1.0,	n.a.
55,	2806200083,	CLO3	07/08/08 12:48,	1.0,	n.a.
56,	2806200084-DNR,	CLO3	07/08/08 13:20,	1.0,	n.a.
57,	2806200085,	CLO3	07/08/08 14:56,	1.0,	41.8068,
58,	2806200086,	CLO3	07/08/08 15:28,	1.0,	n.a.
59,	2806200087,	CLO3	07/08/08 16:01,	1.0,	n.a.
60,	2806240472_1/2,	CLO3	07/08/08 16:33,	2.0,	n.a.
61,	2806240473,	CLO3	07/08/08 17:05,	1.0,	n.a.
62,	2806240474_1/2,	CLO3	07/08/08 17:38,	2.0,	n.a.
63,	MCV,	200/100/200	07/08/08 18:10,	1.0,	196.7821,
64,	CCB,		07/08/08 18:42,	1.0,	n.a.
65,	2806240475_1/2,	CLO3	07/08/08 19:15,	2.0,	n.a.
66,	2806240538_1/5,	CLO3	07/08/08 19:47,	5.0,	121.2674,
67,	2806240540_1/5000,	CLO3	07/08/08 20:20,	5000.0,	n.a.
68,	2806260285,	CLO3	07/08/08 20:52,	1.0,	1384.6813,
69,	2806260285MS,		07/08/08 21:24,	1.0,	1470.8115,
70,	2806260285MSD,		07/08/08 21:57,	1.0,	1475.1149,
71,	2806260294,	CLO3	07/08/08 22:29,	1.0,	n.a.
72,	2806260295,	CLO3	07/08/08 23:02,	1.0,	76.5613,
73,	2806260296,	CLO3	07/08/08 23:34,	1.0,	355.8804,
74,	2806260297,	CLO3	07/09/08 00:06,	1.0,	921.4388,
75,	2806260298,	CLO3	07/09/08 00:39,	1.0,	938.3915,
76,	2806260299,	CLO3	07/09/08 01:11,	1.0,	n.a.
77,	HCV,		07/09/08 01:44,	1.0,	806.3934,
78,	CCB,		07/09/08 02:16,	1.0,	n.a.

No.	Sample Name	Comment	Time	Dil.Fac.	Amount ppb ClO3 CD_1	
1,	WASH,		07/05/08 12:05,	1.0,	n.a.	
2,	autocal1,		07/05/08 12:37,	1.0,	n.a.	
3,	autocal2,	S1-10/5/10	07/05/08 13:09,	1.0,	9.8438	
4,	autocal3,	S2-20/10/20	07/05/08 13:42,	1.0,	17.1394	
5,	autocal4,	S3-100/50/100	07/05/08 14:14,	1.0,	93.3637	
6,	autocal5,	S4-200/100/200	07/05/08 14:47,	1.0,	201.5642	
7,	autocal6,	S5-400/200/400	07/05/08 15:19,	1.0,	397.355	
8,	autocal7,	S6-800/400/800	07/05/08 15:51,	1.0,	801.8344	
9,	WASH,	S6-800/400/800	07/07/08 11:13,	1.0,	n.a.	
10,	MCV,	200/100/200	07/07/08 11:46,	1.0,	198.5786	
11,	CCB,		07/07/08 12:18,	1.0,	n.a.	
12,	MRLCHK,	S1-10/5/10	07/07/08 12:50,	1.0,	3.9957	
13,	MBLK,		07/07/08 13:23,	1.0,	n.a.	
14,	LCS1,	RAJA08061-9	07/07/08 13:55,	1.0,	197.1491	
15,	LCS2,	200/100/200	07/07/08 14:28,	1.0,	197.0927	
16,	2806240207_1/500,	BR	07/07/08 15:00,	500.0,	n.a.	
17,	2807020421_1/2,	BR	07/07/08 15:32,	2.0,	n.a.	
18,	2806260152_1/2,	BR	07/07/08 16:05,	2.0,	n.a.	
19,	2806240551,	BR	07/07/08 16:37,	1.0,	n.a.	
20,	2806250382,	BR	07/07/08 17:10,	1.0,	n.a.	
21,	2806250382MS,		07/07/08 17:42,	1.0,	93.9495	
22,	2806250382MSD,		07/07/08 18:14,	1.0,	107.566	
23,	2806250384,	BR	07/07/08 18:47,	1.0,	7.4984	
24,	MRLCHK,	RERUN	07/07/08 20:03,	1.0,	11.3982	
25,	2806250677,	BR	07/07/08 20:36,	1.0,	n.a.	
26,	2806250678_1/10,	BR	07/07/08 21:08,	10.0,	n.a.	
27,	2806250680_1/10,	BR	07/07/08 21:40,	10.0,	n.a.	
28,	2806250683_1/5,	BR	07/07/08 22:13,	5.0,	n.a.	
29,	MCV,	200/100/200	07/07/08 22:45,	1.0,	216.0144	
30,	CCB,		07/07/08 23:18,	1.0,	n.a.	
31,	2806250594,	BR	07/07/08 23:50,	1.0,	n.a.	
32,	2806250594MS,		07/08/08 00:22,	1.0,	92.0321	
33,	2806250594MSD,		07/08/08 00:55,	1.0,	93.2072	
34,	2806250692,	BR	07/08/08 01:27,	1.0,	n.a.	
35,	2806250694,	BR	07/08/08 02:00,	1.0,	n.a.	
36,	2806250702_1/2,	BR	07/08/08 02:32,	2.0,	n.a.	
37,	2806250704,	BR	07/08/08 03:04,	1.0,	n.a.	
38,	2806250706,	BR	07/08/08 03:37,	1.0,	n.a.	
39,	2806250710,	BR	07/08/08 04:09,	1.0,	n.a.	
40,	2806260399_1/100,	BR	07/08/08 04:42,	100.0,	n.a.	
41,	2806260401,	BR	07/08/08 05:14,	1.0,	n.a.	
42,	2806260403,	BR	07/08/08 05:46,	1.0,	n.a.	
43,	HCV,	800/400/800	07/08/08 06:19,	1.0,	815.0019	
44,	CCB,		07/08/08 06:51,	1.0,	n.a.	
45,	MCV,		07/08/08 07:24,	1.0,	208.5546	104%
46,	CCB,		07/08/08 07:56,	1.0,	n.a.	
47,	MRLCHK,		07/08/08 08:28,	1.0,	7.725	73%
48,	MBLK,		07/08/08 09:01,	1.0,	n.a.	

No.	Sample Name	Comment	Time	Dil.Fac.	Amount ppb CLO3 CD_1	
49,	LCS1,		07/08/08 09:33,	1.0,	✓ 193.8163	96.9%
50,	LCS2,		07/08/08 10:06,	1.0,	✓ 202.4537	101%
51,	2806200081,	CLO3	07/08/08 10:38,	1.0,	n.a.	
52,	2806200081MS,		07/08/08 11:10,	1.0,	93.5566	93.6%
53,	2806200081MSD,		07/08/08 11:43,	1.0,	96.0016	96.0%
54,	2806200082,	CLO3	07/08/08 12:15,	1.0,	✓ n.a.	
55,	2806200083,	CLO3	07/08/08 12:48,	1.0,	✓ n.a.	
56,	2806200084-DNR,	CLO3	07/08/08 13:20,	1.0,	n.a.	
57,	2806200085,	CLO3	07/08/08 14:56,	1.0,	✓ 310.5179	
58,	2806200086,	CLO3	07/08/08 15:28,	1.0,	✓ n.a.	
59,	2806200087,	CLO3	07/08/08 16:01,	1.0,	✓ 13.002 n.a.	re 07.10.08
60,	2806240472_1/2,	CLO3	07/08/08 16:33,	2.0,	✓ 809.1921	
61,	2806240473,	CLO3	07/08/08 17:05,	1.0,	✓ 773.5164	
62,	2806240474_1/2,	CLO3	07/08/08 17:38,	2.0,	✓ 820.9091	
63,	MCV,	200/100/200	07/08/08 18:10,	1.0,	207.4978	104%
64,	CCB,		07/08/08 18:42,	1.0,	n.a.	
65,	2806240475_1/2,	CLO3	07/08/08 19:15,	2.0,	✓ 822.6144	
66,	2806240538_1/5,	CLO3	07/08/08 19:47,	5.0,	✓ n.a.	
67,	2806240540_1/5000,	CLO3	07/08/08 20:20,	5000.0,	✓ 410840.5	
68,	2806260285,	CLO3	07/08/08 20:52,	1.0,	✓ 225.331	
69,	2806260285MS,		07/08/08 21:24,	1.0,	✓ 326.2806	101%
70,	2806260285MSD,		07/08/08 21:57,	1.0,	✓ 324.2784	98.9%
71,	2806260294,	CLO3	07/08/08 22:29,	1.0,	✓ 241.7635	
72,	2806260295,	CLO3	07/08/08 23:02,	1.0,	✓ 238.1818	
73,	2806260296,	CLO3	07/08/08 23:34,	1.0,	✓ 242.8874	
74,	2806260297,	CLO3	07/09/08 00:06,	1.0,	✓ 252.1757	
75,	2806260298,	CLO3	07/09/08 00:39,	1.0,	✓ 182.6998	
76,	2806260299,	CLO3	07/09/08 01:11,	1.0,	✓ 189.3863	
77,	HCV,		07/09/08 01:44,	1.0,	822.8523	103%
78,	CCB,		07/09/08 02:16,	1.0,	n.a.	

Sequence: 070708-DBP-IC12
Operator: raja

Title:
Datasource: Dionex_USPAS2SDIO2
Location: IC\IC12_DBP\2008JULY
Timebase: IC12
#Samples: 78

Created: 7/7/2008 11:09:17 AM by raja
Last Update: 7/9/2008 3:47:38 PM by raja

No.	Name	Comment	Dil. Factor	Type	Sample ID	Program
1	WASH		1.0000	Unknown		IC12 test Program
2	autocal1		1.0000	Standard		IC12 test Program
3	autocal2	S1-10/5/10	1.0000	Standard	RAJA080616-2	IC12 test Program
4	autocal3	S2-20/10/20	1.0000	Standard	RAJA080616-3	IC12 test Program
5	autocal4	S3-100/50/100	1.0000	Standard	RAJA080616-4	IC12 test Program
6	autocal5	S4-200/100/200	1.0000	Standard	RAJA080616-5	IC12 test Program
7	autocal6	S5-400/200/400	1.0000	Standard	RAJA080616-6	IC12 test Program
8	autocal7	S6-800/400/800	1.0000	Standard	RAJA080616-7	IC12 test Program
9	WASH	S6-800/400/800	1.0000	Unknown	RAJA080616-7	IC12 test Program
10	MCV	200/100/200	1.0000	Unknown	200/100/200	IC12 test Program
11	CCB		1.0000	Unknown		IC12 test Program
12	MRLCHK	S1-10/5/10	1.0000	Unknown		IC12 test Program
13	MBLK		1.0000	Unknown		IC12 test Program
14	LCS1	RAJA08061-9	1.0000	Unknown		IC12 test Program
15	LCS2	200/100/200	1.0000	Unknown		IC12 test Program
16	2806240207_1/500	BR	500.0000	Unknown		IC12 test Program
17	2807020421_1/2	BR	2.0000	Unknown		IC12 test Program
18	2806260152_1/2	BR	2.0000	Unknown		IC12 test Program
19	2806240551	BR	1.0000	Unknown		IC12 test Program
20	2806250382	BR	1.0000	Unknown		IC12 test Program
21	2806250382MS		1.0000	Unknown		IC12 test Program
22	2806250382MSD		1.0000	Unknown		IC12 test Program
23	2806250384	BR	1.0000	Unknown		IC12 test Program
24	MRLCHK	RERUN	1.0000	Unknown		IC12 test Program
25	2806250677	BR	1.0000	Unknown		IC12 test Program
26	2806250678_1/10	BR	10.0000	Unknown		IC12 test Program
27	2806250680_1/10	BR	10.0000	Unknown		IC12 test Program
28	2806250683_1/5	BR	5.0000	Unknown		IC12 test Program
29	MCV	200/100/200	1.0000	Unknown		IC12 test Program
30	CCB		1.0000	Unknown		IC12 test Program
31	2806250594	BR	1.0000	Unknown		IC12 test Program
32	2806250594MS		1.0000	Unknown		IC12 test Program
33	2806250594MSD		1.0000	Unknown		IC12 test Program
34	2806250692	BR	1.0000	Unknown		IC12 test Program
35	2806250694	BR	1.0000	Unknown		IC12 test Program
36	2806250702_1/2	BR	2.0000	Unknown		IC12 test Program
37	2806250704	BR	1.0000	Unknown		IC12 test Program
38	2806250706	BR	1.0000	Unknown		IC12 test Program
39	2806250710	BR	1.0000	Unknown		IC12 test Program
40	2806260399_1/100	BR	100.0000	Unknown		IC12 test Program
41	2806260401	BR	1.0000	Unknown		IC12 test Program
42	2806260403	BR	1.0000	Unknown		IC12 test Program

Sequence: 070708-DBP-IC12
Operator: raja

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Printed: 7/9/2008 3:52:38 PM

Title:
Datasource: Dionex_USPAS2SDIO2
Location: IC1C12_DBP12008JULY
Timebase: IC12
#Samples: 78

Created: 7/7/2008 11:09:17 AM by raja
Last Update: 7/9/2008 3:47:38 PM by raja

No.	Name	Method	Status	Inj. Date/Time	*Analyst
1	WASH	DBP-Method	Finished	7/5/2008 12:05:08 PM	raja
2	autocal1	DBP-Method	Finished	7/5/2008 12:37:31 PM	raja
3	autocal2	DBP-Method	Finished	7/5/2008 1:09:55 PM	raja
4	autocal3	DBP-Method	Finished	7/5/2008 1:42:19 PM	raja
5	autocal4	DBP-Method	Finished	7/5/2008 2:14:43 PM	raja
6	autocal5	DBP-Method	Finished	7/5/2008 2:47:06 PM	raja
7	autocal6	DBP-Method	Finished	7/5/2008 3:19:30 PM	raja
8	autocal7	DBP-Method	Finished	7/5/2008 3:51:54 PM	raja
9	WASH	DBP-Method	Finished	7/7/2008 11:13:39 AM	raja
10	MCV	DBP-Method	Finished	7/7/2008 11:46:03 AM	raja
11	CCB	DBP-Method	Finished	7/7/2008 12:18:27 PM	raja
12	MRLCHK	DBP-Method	Finished	7/7/2008 12:50:50 PM	raja
13	MBLK	DBP-Method	Finished	7/7/2008 1:23:14 PM	raja
14	LCS1	DBP-Method	Finished	7/7/2008 1:55:38 PM	raja
15	LCS2	DBP-Method	Finished	7/7/2008 2:28:02 PM	raja
16	2806240207_1/500	DBP-Method	Finished	7/7/2008 3:00:25 PM	raja
17	2807020421_1/2	DBP-Method	Finished	7/7/2008 3:32:49 PM	raja
18	2806260152_1/2	DBP-Method	Finished	7/7/2008 4:05:13 PM	raja
19	2806240551	DBP-Method	Finished	7/7/2008 4:37:37 PM	raja
20	2806250382	DBP-Method	Finished	7/7/2008 5:10:00 PM	raja
21	2806250382MS	DBP-Method	Finished	7/7/2008 5:42:24 PM	raja
22	2806250382MSD	DBP-Method	Finished	7/7/2008 6:14:49 PM	raja
23	2806250384	DBP-Method	Finished	7/7/2008 6:47:12 PM	raja
24	MRLCHK	DBP-Method	Finished	7/7/2008 8:03:48 PM	MRLCHK
25	2806250677	DBP-Method	Finished	7/7/2008 8:36:12 PM	raja
26	2806250678_1/10	DBP-Method	Finished	7/7/2008 9:08:36 PM	raja
27	2806250680_1/10	DBP-Method	Finished	7/7/2008 9:40:59 PM	raja
28	2806250683_1/5	DBP-Method	Finished	7/7/2008 10:13:23 PM	raja
29	MCV	DBP-Method	Finished	7/7/2008 10:45:47 PM	raja
30	CCB	DBP-Method	Finished	7/7/2008 11:18:11 PM	raja
31	2806250594	DBP-Method	Finished	7/7/2008 11:50:34 PM	raja
32	2806250594MS	DBP-Method	Finished	7/8/2008 12:22:58 AM	raja
33	2806250594MSD	DBP-Method	Finished	7/8/2008 12:55:22 AM	raja
34	2806250692	DBP-Method	Finished	7/8/2008 1:27:46 AM	raja
35	2806250694	DBP-Method	Finished	7/8/2008 2:00:10 AM	raja
36	2806250702_1/2	DBP-Method	Finished	7/8/2008 2:32:33 AM	raja
37	2806250704	DBP-Method	Finished	7/8/2008 3:04:57 AM	raja
38	2806250706	DBP-Method	Finished	7/8/2008 3:37:21 AM	raja
39	2806250710	DBP-Method	Finished	7/8/2008 4:09:45 AM	raja
40	2806260399_1/100	DBP-Method	Finished	7/8/2008 4:42:09 AM	raja
41	2806260401	DBP-Method	Finished	7/8/2008 5:14:32 AM	raja
42	2806260403	DBP-Method	Finished	7/8/2008 5:46:56 AM	raja

Sequence: 070708-DBP-IC12
Operator: raja

Title:
Datasource: Dionex_USPAS2SDIO2
Location: IC\IC12_DBP\2008JULY
Timebase: IC12
#Samples: 78

Created: 7/7/2008 11:09:17 AM by raja
Last Update: 7/9/2008 3:47:38 PM by raja

No.	Name	Comment	Dil. Factor	Type	Sample ID	Program
43	HCV	800/400/800	1.0000	Unknown		IC12 test Program
44	CCB		1.0000	Unknown		IC12 test Program
45	MCV		1.0000	Unknown		IC12 test Program
46	CCB		1.0000	Unknown		IC12 test Program
47	MRLCHK		1.0000	Unknown		IC12 test Program
48	MBLK		1.0000	Unknown		IC12 test Program
49	LCS1		1.0000	Unknown		IC12 test Program
50	LCS2		1.0000	Unknown		IC12 test Program
51	2806200081	CLO3	1.0000	Unknown		IC12 test Program
52	2806200081MS		1.0000	Unknown		IC12 test Program
53	2806200081MSD		1.0000	Unknown		IC12 test Program
54	2806200082	CLO3	1.0000	Unknown		IC12 test Program
55	2806200083	CLO3	1.0000	Unknown		IC12 test Program
56	2806200084-DNR	CLO3	1.0000	Unknown		IC12 test Program
57	2806200085	CLO3	1.0000	Unknown		IC12 test Program
58	2806200086	CLO3	1.0000	Unknown		IC12 test Program
59	2806200087	CLO3	1.0000	Unknown		IC12 test Program
60	2806240472_1/2	CLO3	2.0000	Unknown		IC12 test Program
61	2806240473	CLO3	1.0000	Unknown		IC12 test Program
62	2806240474_1/2	CLO3	2.0000	Unknown		IC12 test Program
63	MCV	200/100/200	1.0000	Unknown		IC12 test Program
64	CCB		1.0000	Unknown		IC12 test Program
65	2806240475_1/2	CLO3	2.0000	Unknown		IC12 test Program
66	2806240538_1/5	CLO3	5.0000	Unknown		IC12 test Program
67	2806240540_1/5000	CLO3	5000.0000	Unknown		IC12 test Program
68	2806260285	CLO3	1.0000	Unknown		IC12 test Program
69	2806260285MS		1.0000	Unknown		IC12 test Program
70	2806260285MSD		1.0000	Unknown		IC12 test Program
71	2806260294	CLO3	1.0000	Unknown		IC12 test Program
72	2806260295	CLO3	1.0000	Unknown		IC12 test Program
73	2806260296	CLO3	1.0000	Unknown		IC12 test Program
74	2806260297	CLO3	1.0000	Unknown		IC12 test Program
75	2806260298	CLO3	1.0000	Unknown		IC12 test Program
76	2806260299	CLO3	1.0000	Unknown		IC12 test Program
77	HCV		1.0000	Unknown		IC12 test Program
78	CCB		1.0000	Unknown		IC12 test Program

Sequence: 070708-DBP-IC12
Operator: raja

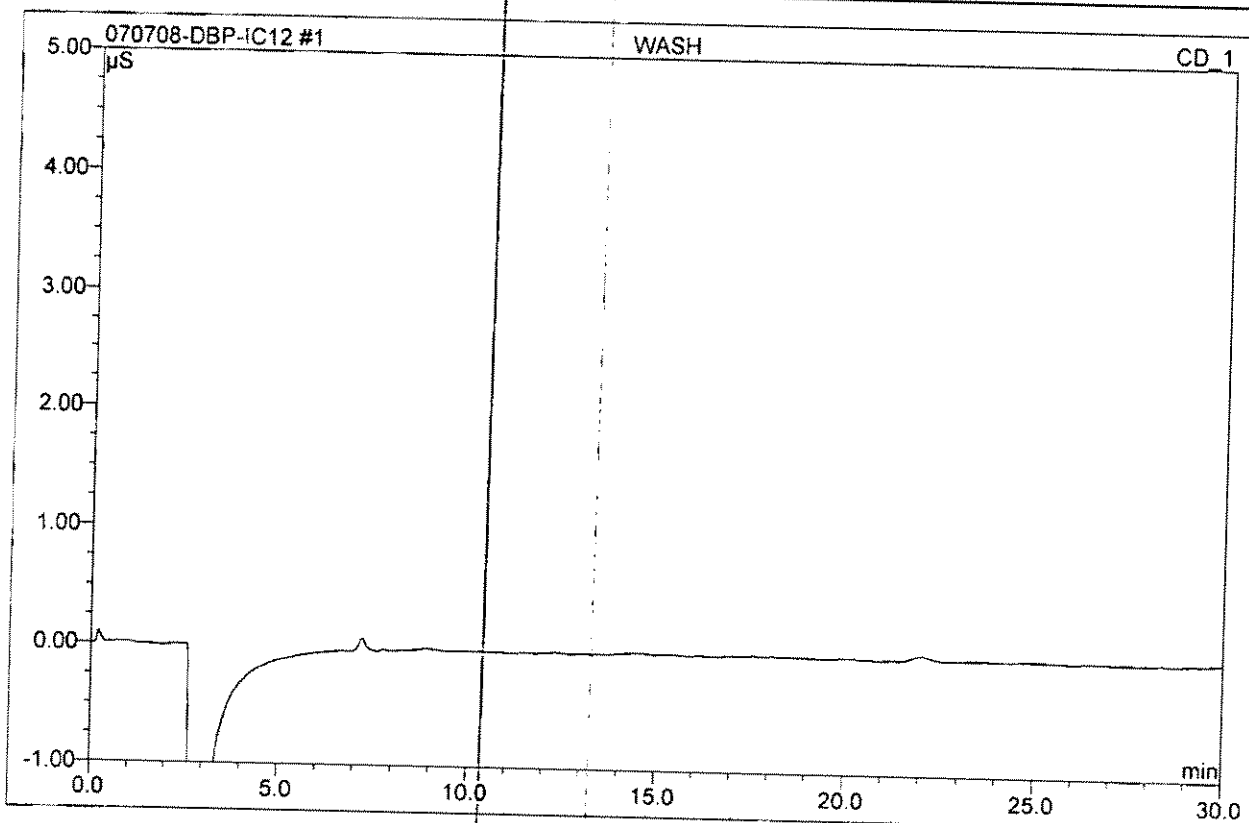
Page 4 of 4
Printed: 7/9/2008 3:52:39 PM

Title:
Datasource: Dionex_USPAS2SDIO2
Location: IC1C12_DBP2008JULY
Timebase: IC12
#Samples: 78

Created: 7/7/2008 11:09:17 AM by raja
Last Update: 7/9/2008 3:47:38 PM by raja

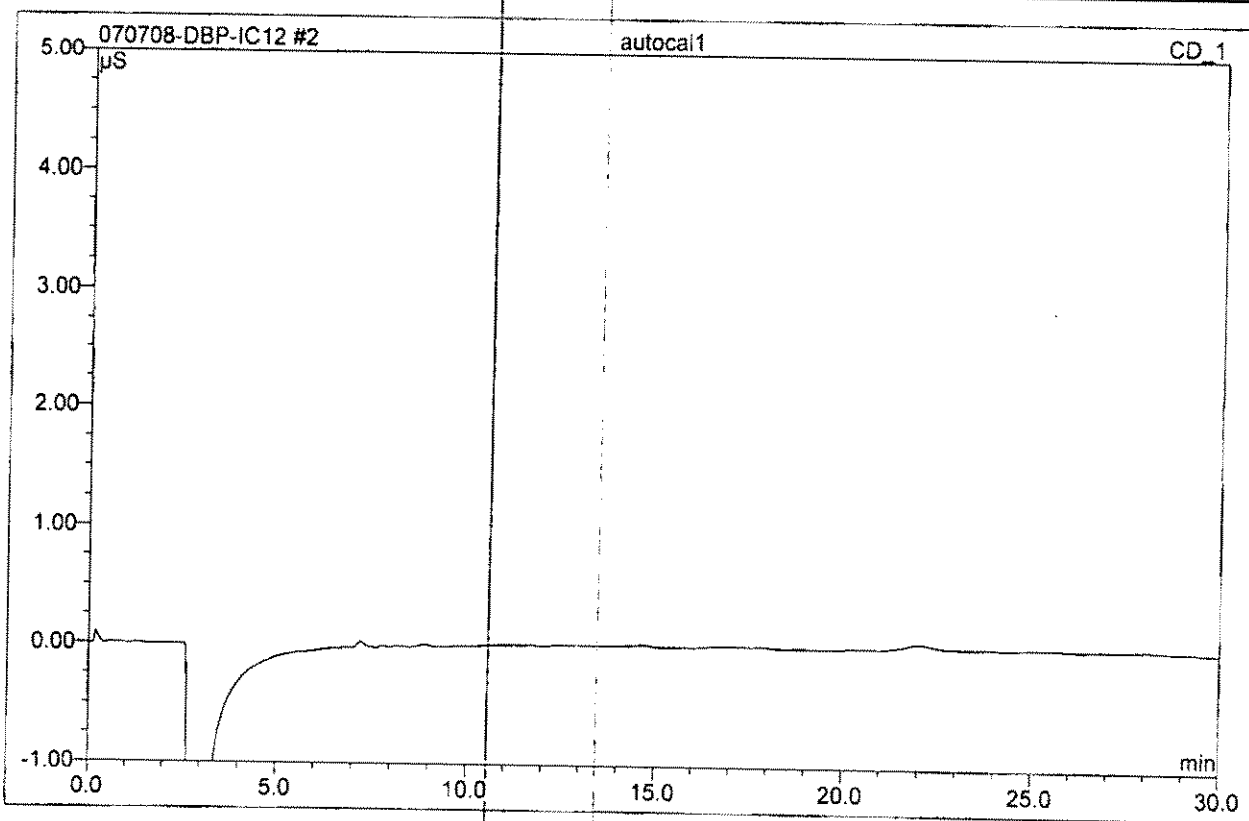
No.	Name	Method	Status	Inj. Date/Time	*Analyst
43	HCV	DBP-Method	Finished	7/8/2008 6:19:20 AM	raja
44	CCB	DBP-Method	Finished	7/8/2008 6:51:44 AM	raja
45	MCV	DBP-Method	Finished	7/8/2008 7:24:07 AM	raja
46	CCB	DBP-Method	Finished	7/8/2008 7:56:31 AM	raja
47	MRLCHK	DBP-Method	Finished	7/8/2008 8:28:55 AM	raja
48	MBLK	DBP-Method	Finished	7/8/2008 9:01:19 AM	raja
49	LCS1	DBP-Method	Finished	7/8/2008 9:33:42 AM	raja
50	LCS2	DBP-Method	Finished	7/8/2008 10:06:06 AM	raja
51	2806200081	DBP-Method	Finished	7/8/2008 10:38:30 AM	raja
52	2806200081MS	DBP-Method	Finished	7/8/2008 11:10:54 AM	raja
53	2806200081MSD	DBP-Method	Finished	7/8/2008 11:43:18 AM	raja
54	2806200082	DBP-Method	Finished	7/8/2008 12:15:42 PM	raja
55	2806200083	DBP-Method	Finished	7/8/2008 12:48:06 PM	raja
56	2806200084-DNR	DBP-Method	Interrupted	7/8/2008 1:20:30 PM	raja
57	2806200085	DBP-Method	Finished	7/8/2008 2:56:12 PM	raja
58	2806200086	DBP-Method	Finished	7/8/2008 3:28:36 PM	raja
59	2806200087	DBP-Method	Finished	7/8/2008 4:01:00 PM	raja
60	2806240472_1/2	DBP-Method	Finished	7/8/2008 4:33:24 PM	raja
61	2806240473	DBP-Method	Finished	7/8/2008 5:05:47 PM	raja
62	2806240474_1/2	DBP-Method	Finished	7/8/2008 5:38:11 PM	raja
63	MCV	DBP-Method	Finished	7/8/2008 6:10:35 PM	raja
64	CCB	DBP-Method	Finished	7/8/2008 6:42:59 PM	raja
65	2806240475_1/2	DBP-Method	Finished	7/8/2008 7:15:23 PM	raja
66	2806240538_1/5	DBP-Method	Finished	7/8/2008 7:47:47 PM	raja
67	2806240540_1/5000	DBP-Method	Finished	7/8/2008 8:20:10 PM	raja
68	2806260285	DBP-Method	Finished	7/8/2008 8:52:34 PM	raja
69	2806260285MS	DBP-Method	Finished	7/8/2008 9:24:58 PM	raja
70	2806260285MSD	DBP-Method	Finished	7/8/2008 9:57:22 PM	raja
71	2806260294	DBP-Method	Finished	7/8/2008 10:29:46 PM	raja
72	2806260295	DBP-Method	Finished	7/8/2008 11:02:11 PM	raja
73	2806260296	DBP-Method	Finished	7/8/2008 11:34:35 PM	raja
74	2806260297	DBP-Method	Finished	7/9/2008 12:06:59 AM	raja
75	2806260298	DBP-Method	Finished	7/9/2008 12:39:23 AM	raja
76	2806260299	DBP-Method	Finished	7/9/2008 1:11:47 AM	raja
77	HCV	DBP-Method	Finished	7/9/2008 1:44:10 AM	raja
78	CCB	DBP-Method	Finished	7/9/2008 2:16:34 AM	raja

1 WASH			
Sample Name:	WASH	Injection Volume:	1000.0
Vial Number:	336	Channel:	CD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	IC12 test Program	Bandwidth:	n.a.
Quantif. Method:	DBP-Method	Dilution Factor:	1.0000
Recording Time:	7/5/2008 12:05	Sample Weight:	1.0000
Run Time (min):	30.00	Sample Amount:	1.0000



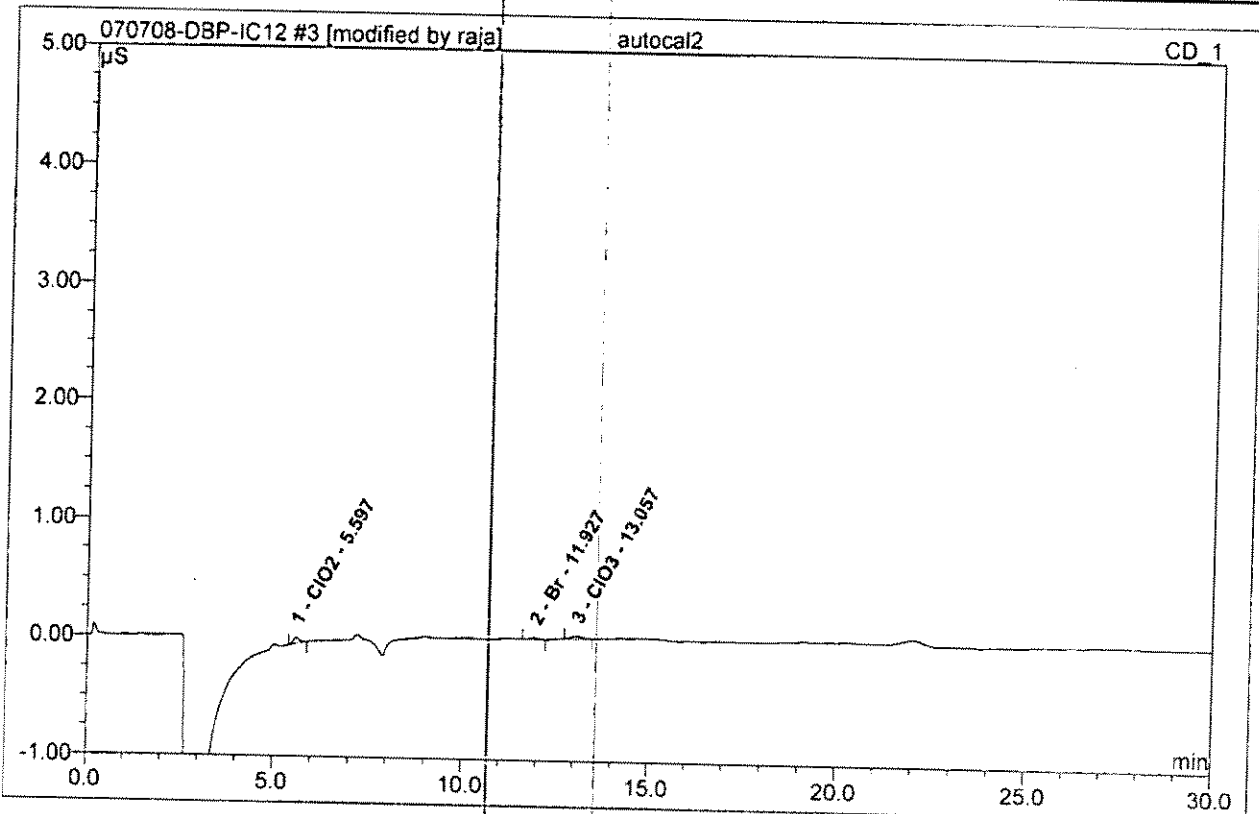
No.	Ret. Time min	Peak Name	Height μS	Area μS*min	Rel. Area %	Amount ppb	Type
Total:			0.000	0.000	0.00	0.000	

2 autocal1			
<i>Sample Name:</i>	autocal1	<i>Injection Volume:</i>	1000.0
<i>Vial Number:</i>	335	<i>Channel:</i>	CD_1
<i>Sample Type:</i>	standard	<i>Wavelength:</i>	n.a.
<i>Control Program:</i>	IC12 test Program	<i>Bandwidth:</i>	n.a.
<i>Quantif. Method:</i>	DBP-Method	<i>Dilution Factor:</i>	1.0000
<i>Recording Time:</i>	7/5/2008 12:37	<i>Sample Weight:</i>	1.0000
<i>Run Time (min):</i>	30.00	<i>Sample Amount:</i>	1.0000



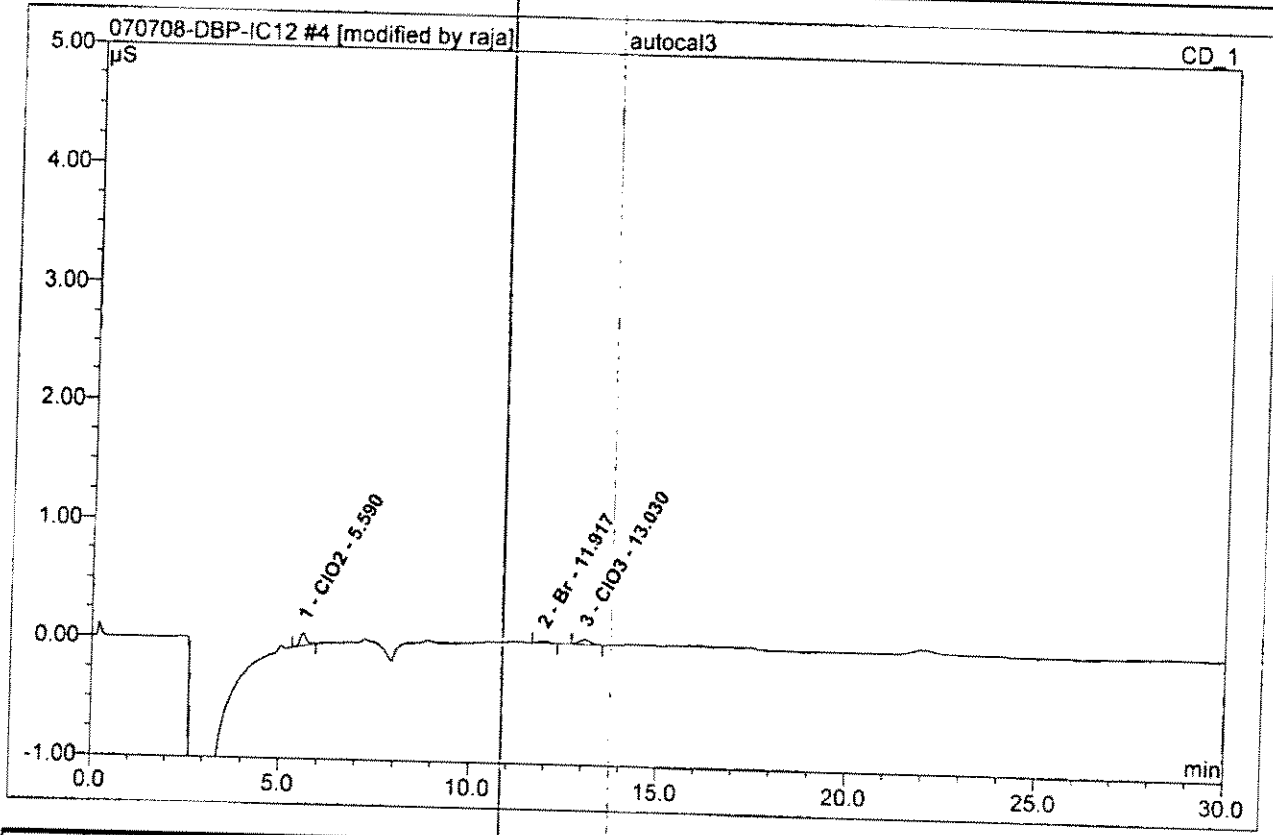
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount ppb	Type
Total:			0.000	0.000	0.00	0.000	

3 autocal2			
S1-10/5/10			
Sample Name:	autocal2	Injection Volume:	1000.0
Vial Number:	335	Channel:	CD_1
Sample Type:	standard	Wavelength:	n.a.
Control Program:	IC12 test Program	Bandwidth:	n.a.
Quantif. Method:	DBP-Method	Dilution Factor:	1.0000
Recording Time:	7/5/2008 13:09	Sample Weight:	1.0000
Run Time (min):	30.00	Sample Amount:	1.0000



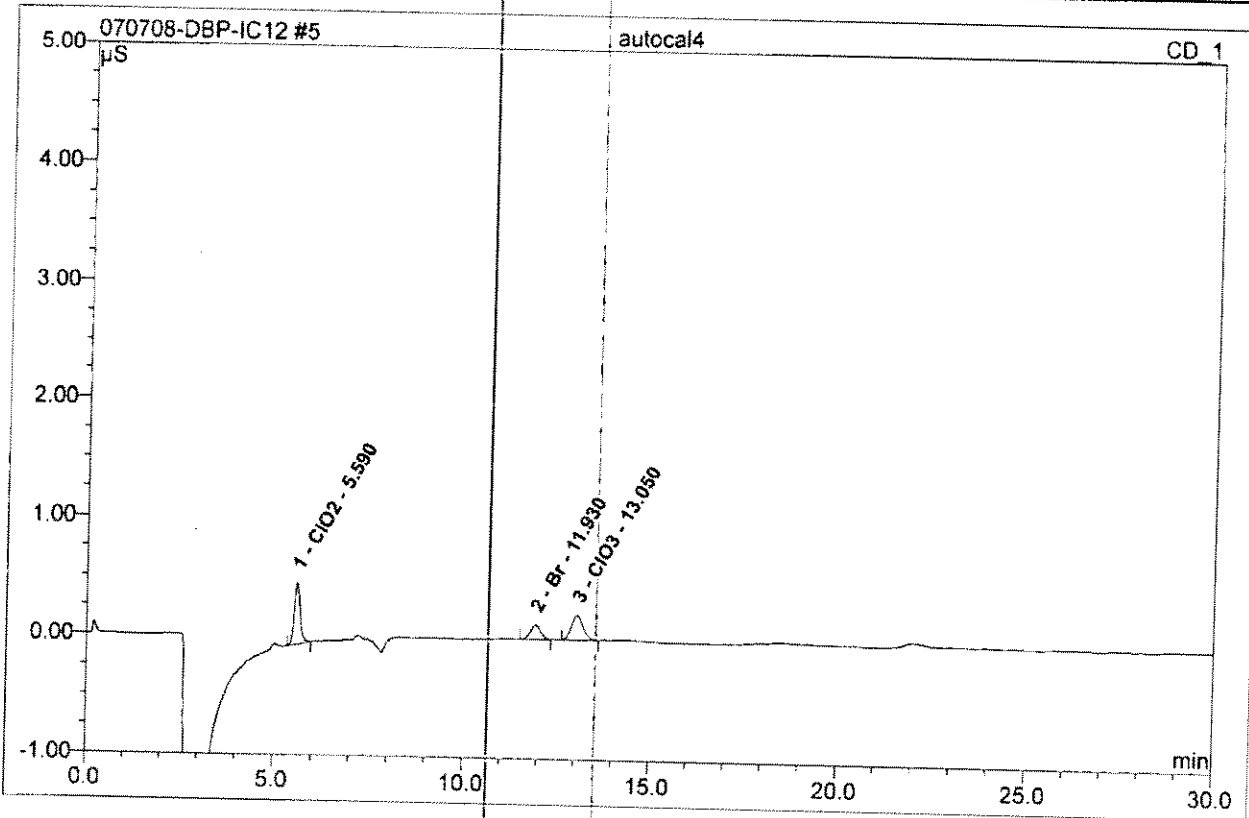
No.	Ret. Time min	Peak Name	Height μS	Area μS*min	Rel. Area %	Amount ppb	Type
1	5.60	ClO2	0.053	0.009	41.94	9.665	BMB
2	11.93	Br	0.016	0.005	21.98	5.381	BMB*
3	13.06	ClO3	0.023	0.008	36.08	9.844	BMB
Total:			0.092	0.022	100.00	24.890	

4 autocal3			
S2-20/10/20			
Sample Name:	autocal3	Injection Volume:	1000.0
Vial Number:	336	Channel:	CD_1
Sample Type:	standard	Wavelength:	n.a.
Control Program:	IC12 test Program	Bandwidth:	n.a.
Quantif. Method:	DBP-Method	Dilution Factor:	1.0000
Recording Time:	7/5/2008 13:42	Sample Weight:	1.0000
Run Time (min):	30.00	Sample Amount:	1.0000



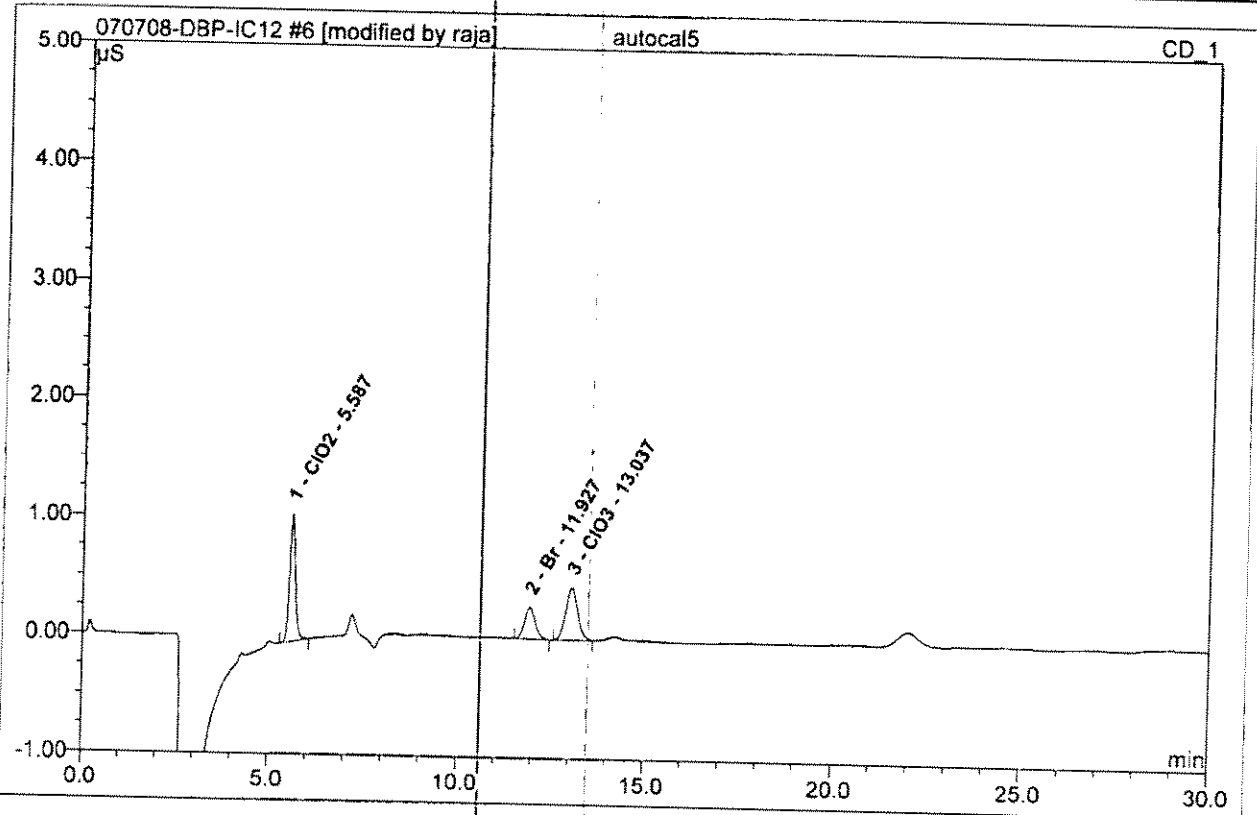
No.	Ret. Time min	Peak Name	Height μS	Area μS*min	Rel. Area %	Amount ppb	Type
1	5.59	ClO2	0.107	0.020	49.65	20.407	BMB
2	11.92	Br	0.020	0.006	15.13	6.604	BMB*
3	13.03	ClO3	0.039	0.014	35.22	17.139	BMB
Total:			0.165	0.040	100.00	44.151	

5 autocal4			
S3-100/50/100			
Sample Name:	autocal4	Injection Volume:	1000.0
Vial Number:	337	Channel:	CD_1
Sample Type:	standard	Wavelength:	n.a.
Control Program:	IC12 test Program	Bandwidth:	n.a.
Quantif. Method:	DBP-Method	Dilution Factor:	1.0000
Recording Time:	7/5/2008 14:14	Sample Weight:	1.0000
Run Time (min):	30.00	Sample Amount:	1.0000



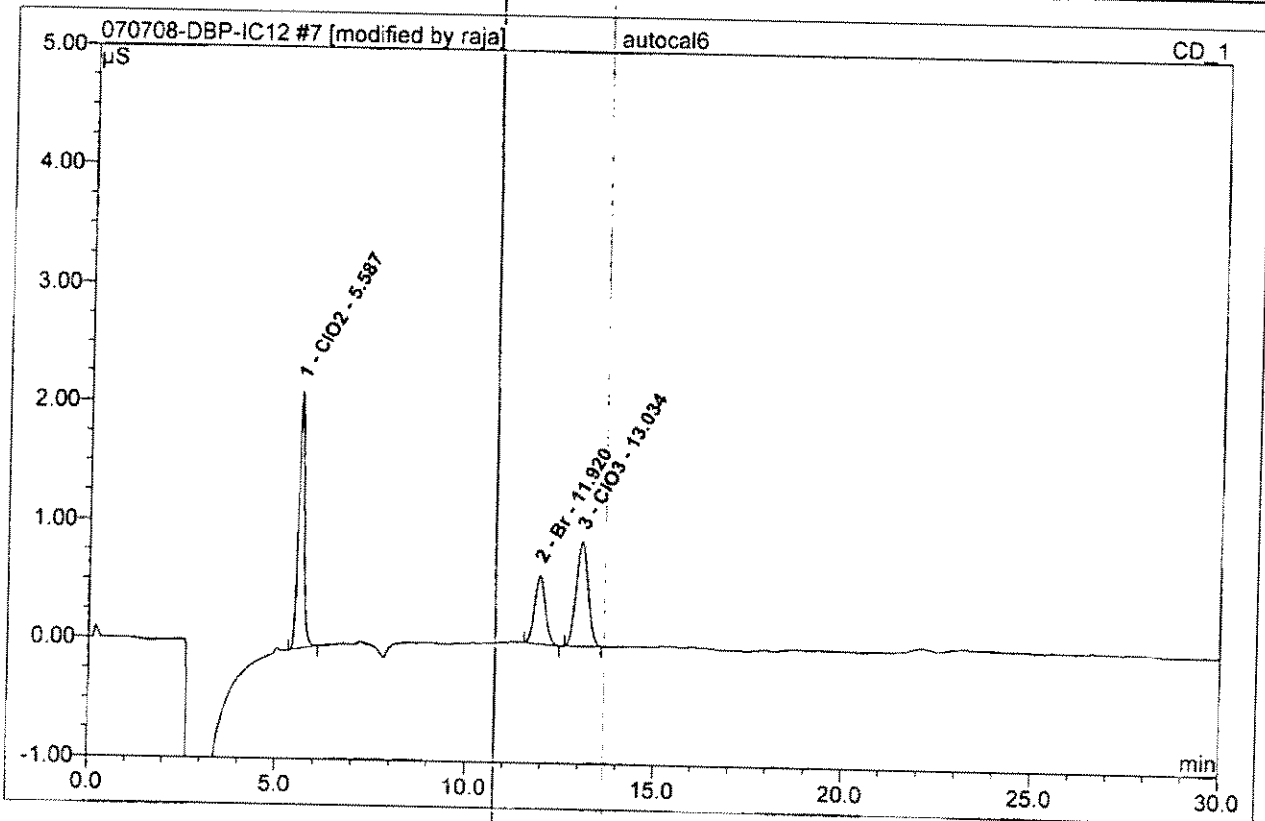
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount ppb	Type
1	5.59	ClO2	0.521	0.093	44.28	96.581	BMB
2	11.93	Br	0.126	0.041	19.57	45.336	BMB
3	13.05	ClO3	0.209	0.076	36.15	93.364	BMB
Total:			0.857	0.210	100.00	235.280	

6 autocal5	
S4-200/100/200	
Sample Name: autocal5	Injection Volume: 1000.0
Vial Number: 338	Channel: CD_1
Sample Type: standard	Wavelength: n.a.
Control Program: IC12 test Program	Bandwidth: n.a.
Quantif. Method: DBP-Method	Dilution Factor: 1.0000
Recording Time: 7/5/2008 14:47	Sample Weight: 1.0000
Run Time (min): 30.00	Sample Amount: 1.0000



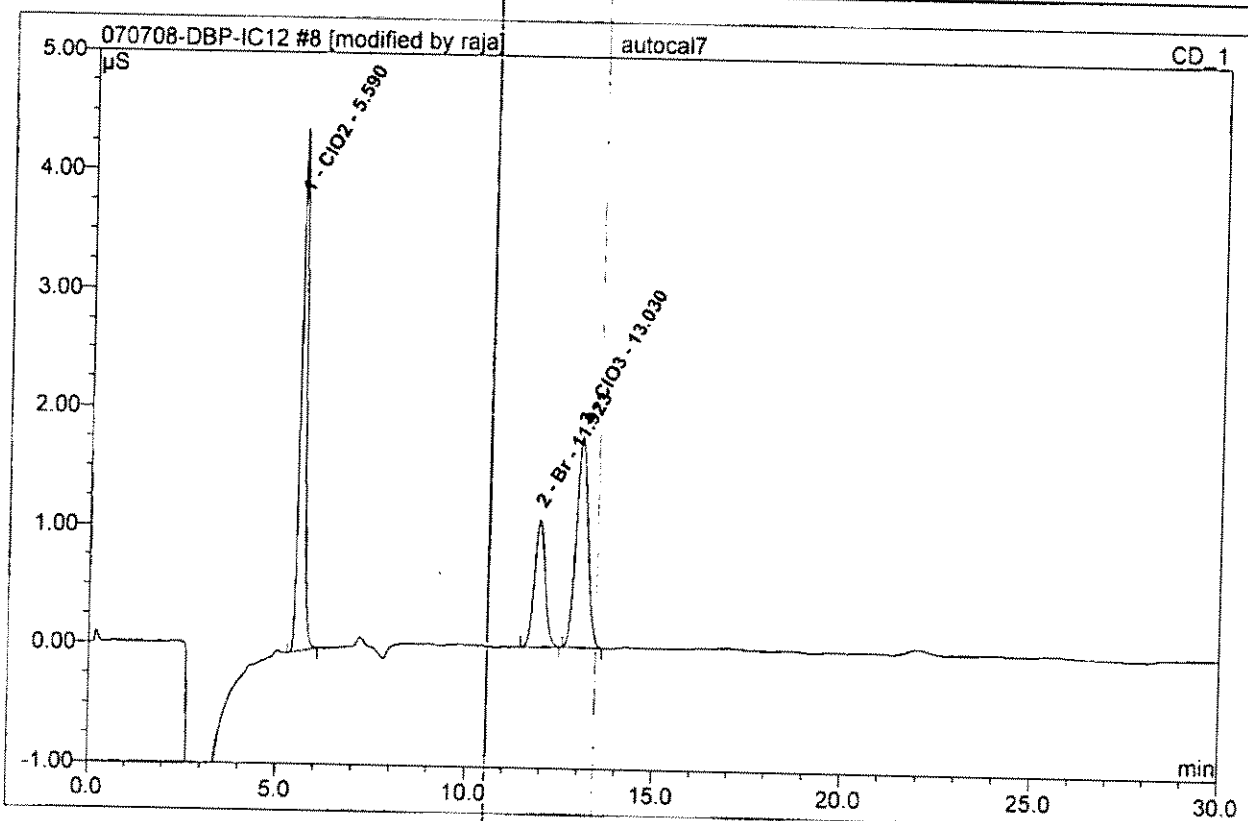
No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount ppb	Type
1	5.59	ClO2	1.076	0.193	43.02	199.851	BMB
2	11.93	Br	0.270	0.091	20.33	100.300	BMB
3	13.04	ClO3	0.442	0.164	36.65	201.564	BMB*
Total:			1.789	0.448	100.00	501.716	

7 autocal6			
S5-400/200/400			
Sample Name:	autocal6	Injection Volume:	1000.0
Vial Number:	338	Channel:	CD_1
Sample Type:	standard	Wavelength:	n.a.
Control Program:	IC12 test Program	Bandwidth:	n.a.
Quantif. Method:	DBP-Method	Dilution Factor:	1.0000
Recording Time:	7/5/2008 15:19	Sample Weight:	1.0000
Run Time (min):	30.00	Sample Amount:	1.0000



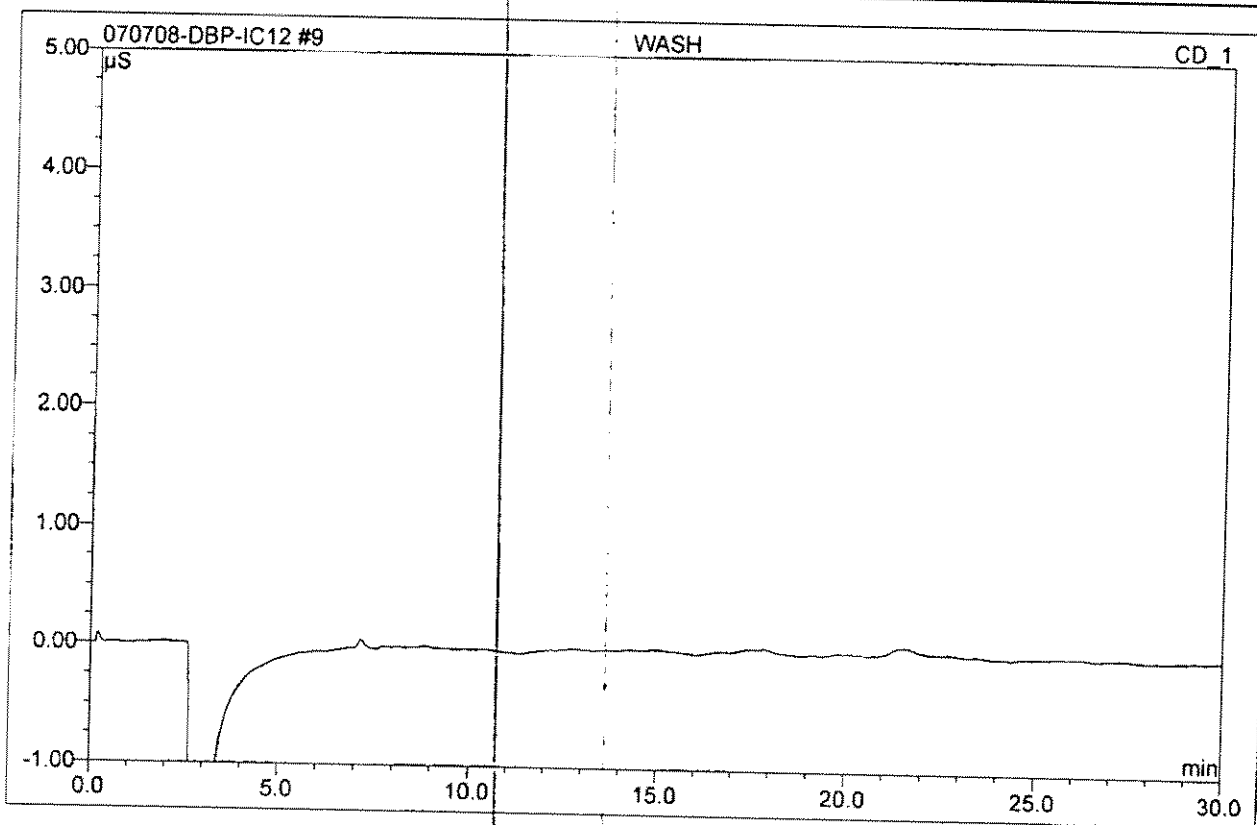
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount ppb	Type
1	5.59	ClO2	2.166	0.383	42.62	397.515	BMB
2	11.92	Br	0.576	0.192	21.40	212.034	BMB*
3	13.03	ClO3	0.883	0.324	35.98	397.355	BMB*
Total:			3.625	0.899	100.00	1006.904	

8 autocal7			
S6-800/400/800			
Sample Name:	autocal7	Injection Volume:	1000.0
Vial Number:	334	Channel:	CD_1
Sample Type:	standard	Wavelength:	n.a.
Control Program:	IC12 test Program	Bandwidth:	n.a.
Quantif. Method:	DBP-Method	Dilution Factor:	1.0000
Recording Time:	7/5/2008 15:51	Sample Weight:	1.0000
Run Time (min):	30.00	Sample Amount:	1.0000



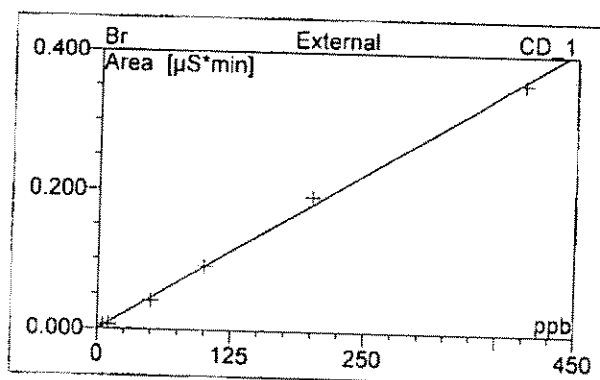
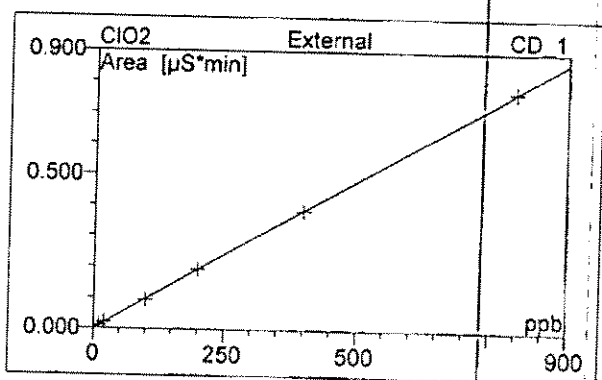
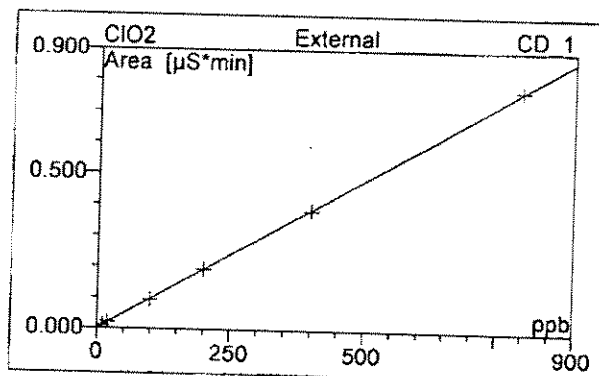
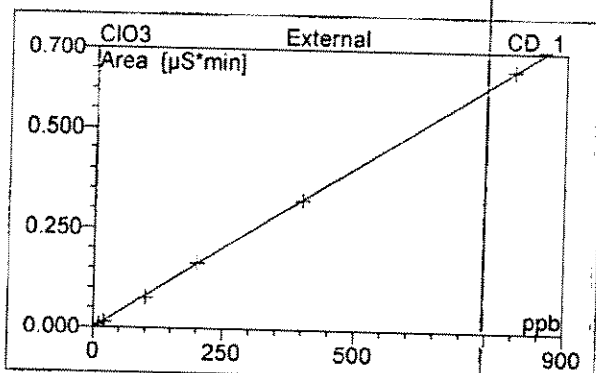
No.	Ret.Time min	Peak Name	Height μS	Area $\mu\text{S}\cdot\text{min}$	Rel.Area %	Amount ppb	Type
1	5.59	CIO2	4.400	0.773	43.33	801.701	BMB
2	11.92	Br	1.070	0.358	20.07	394.571	BMB*
3	13.03	CIO3	1.774	0.653	36.60	801.834	BMB*
Total:			7.245	1.784	100.00	1998.107	

9 WASH			
S6-800/400/800			
Sample Name:	WASH	Injection Volume:	1000.0
Vial Number:	335	Channel:	CD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	IC12 test Program	Bandwidth:	n.a.
Quantif. Method:	DBP-Method	Dilution Factor:	1.0000
Recording Time:	7/7/2008 11:13	Sample Weight:	1.0000
Run Time (min):	30.00	Sample Amount:	1.0000



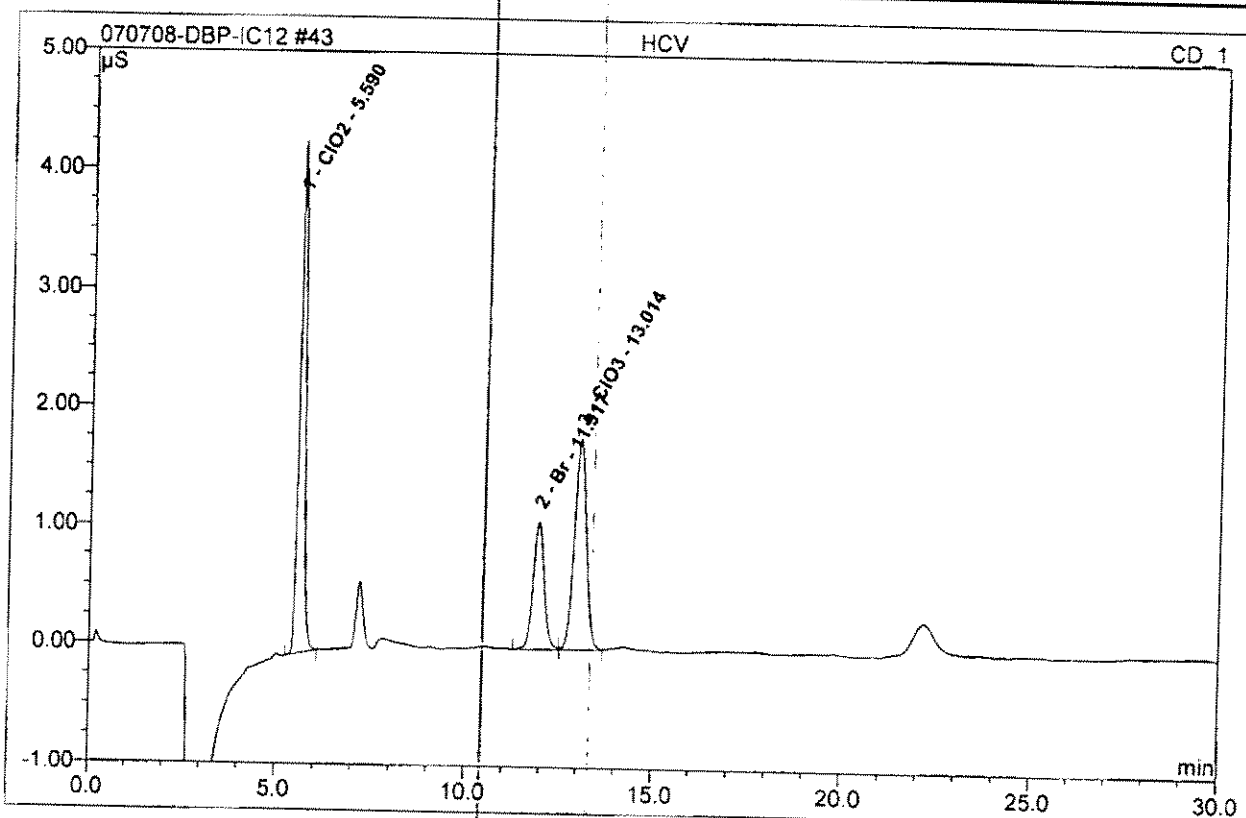
No.	Ret. Time min	Peak Name	Height μS	Area $\mu\text{S}\cdot\text{min}$	Rel. Area %	Amount ppb	Type
Total:			0.000	0.000	0.00	0.000	

8 autocal7			
S6-800/400/800			
Sample Name:	autocal7	Injection Volume:	1000.0
Vial Number:	334	Channel:	CD_1
Sample Type:	standard	Wavelength:	n.a.
Control Program:	IC12 test Program	Bandwidth:	n.a.
Quantif. Method:	DBP-Method	Dilution Factor:	1.0000
Recording Time:	7/5/2008 15:51	Sample Weight:	1.0000
Run Time (min):	30.00	Sample Amount:	1.0000



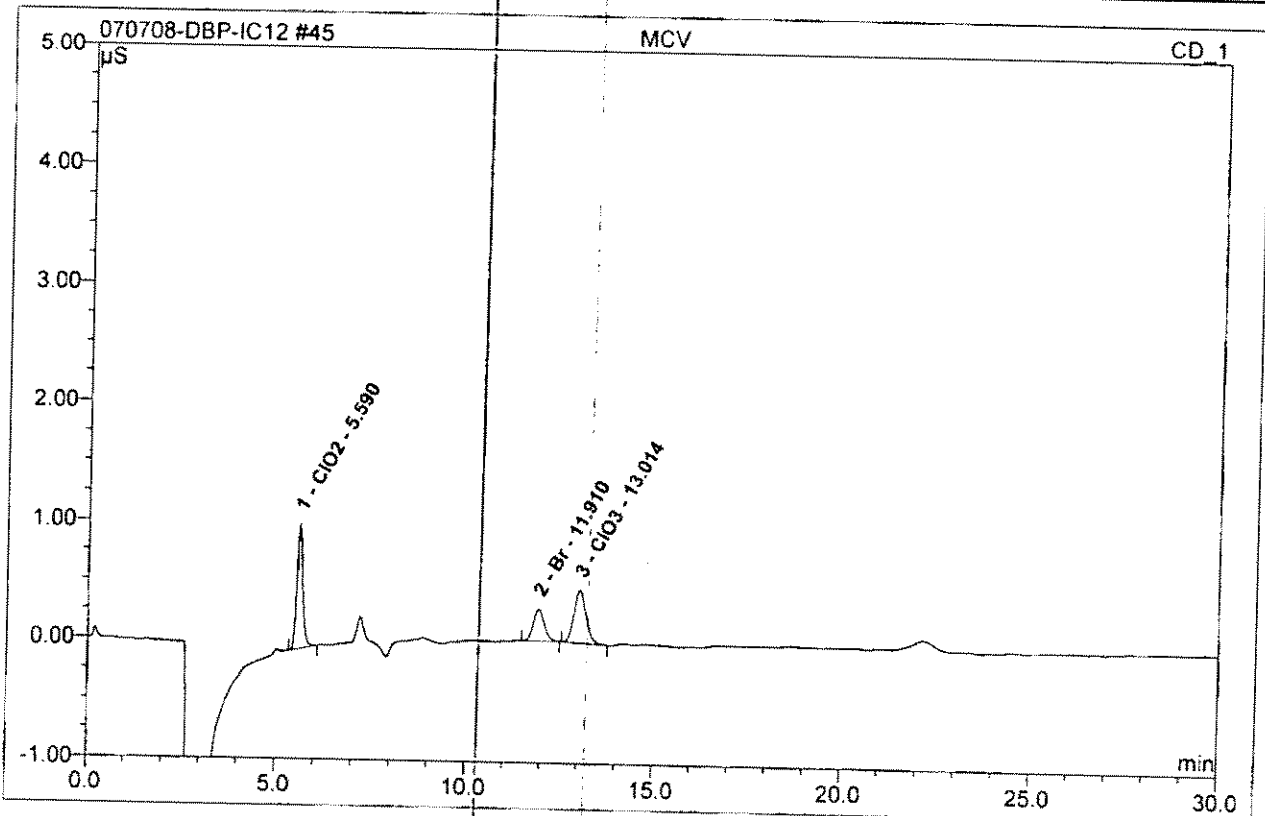
No.	Ret. Time min	Peak Name	Cal. Type	Points	Corr. Coeff. %	Offset	Slope	Curve
1	5.59	ClO2	Lin	6	99.9983	0.0000	0.0010	0.0000
2	11.92	Br	Lin	6	99.9101	0.0000	0.0009	0.0000
3	13.03	ClO3	Lin	6	99.9956	0.0000	0.0008	0.0000
Average:					99.9680	0.0000	0.0009	0.0000

43 HCV			
800/400/800			
Sample Name:	HCV	Injection Volume:	1000.0
Vial Number:	339	Channel:	CD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	IC12 test Program	Bandwidth:	n.a.
Quantif. Method:	DBP-Method	Dilution Factor:	1.0000
Recording Time:	7/8/2008 6:19	Sample Weight:	1.0000
Run Time (min):	30.00	Sample Amount:	1.0000



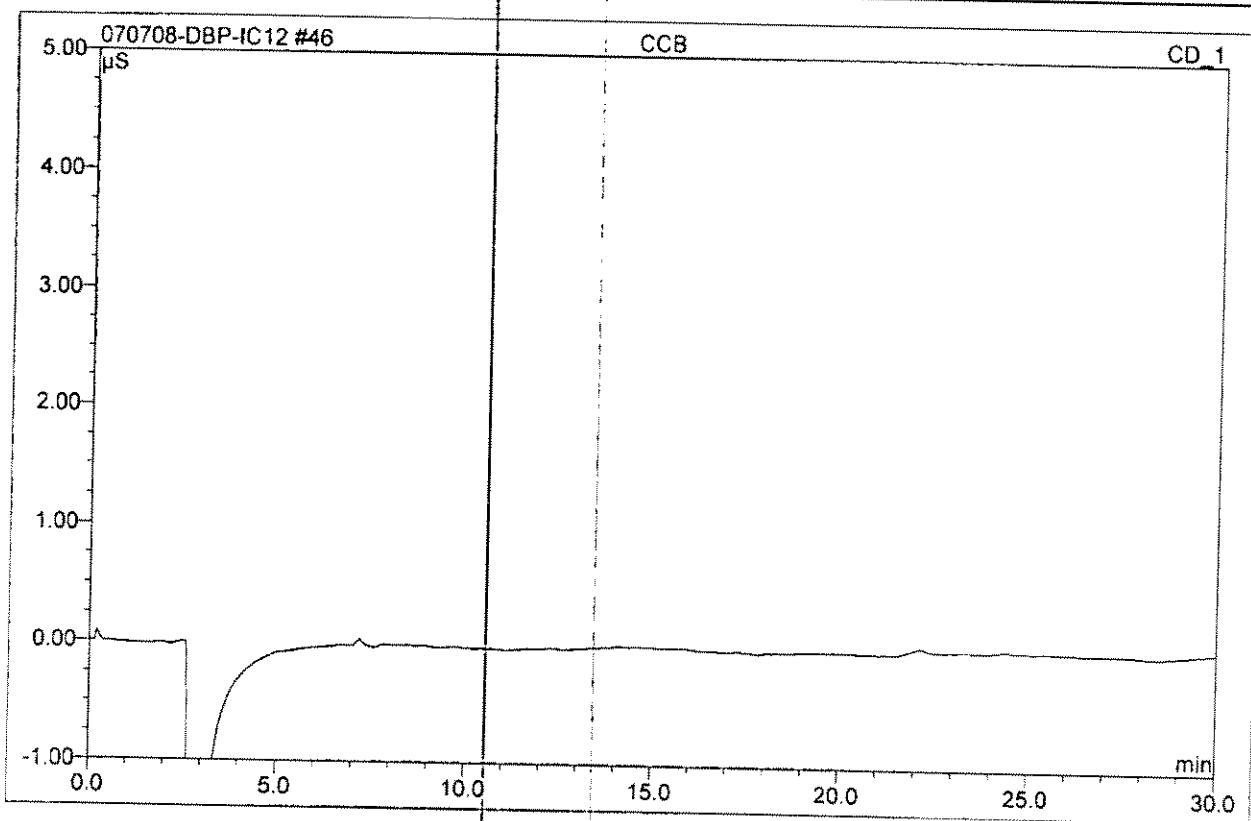
No.	Ret. Time min	Peak Name	Height µS	Area µS*min	Rel. Area %	Amount ppb	Type
1	5.59	ClO2	4.316	0.770	42.60	798.573	BMB
2	11.92	Br	1.079	0.374	20.69	412.032	BM
3	13.01	ClO3	1.780	0.664	36.72	815.002	MB
Total:			7.175	1.807	100.00	2025.607	

45 MCV			
Sample Name:	MCV	Injection Volume:	1000.0
Vial Number:	336	Channel:	CD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	IC12 test Program	Bandwidth:	n.a.
Quantif. Method:	DBP-Method	Dilution Factor:	1.0000
Recording Time:	7/8/2008 7:24	Sample Weight:	1.0000
Run Time (min):	30.00	Sample Amount:	1.0000



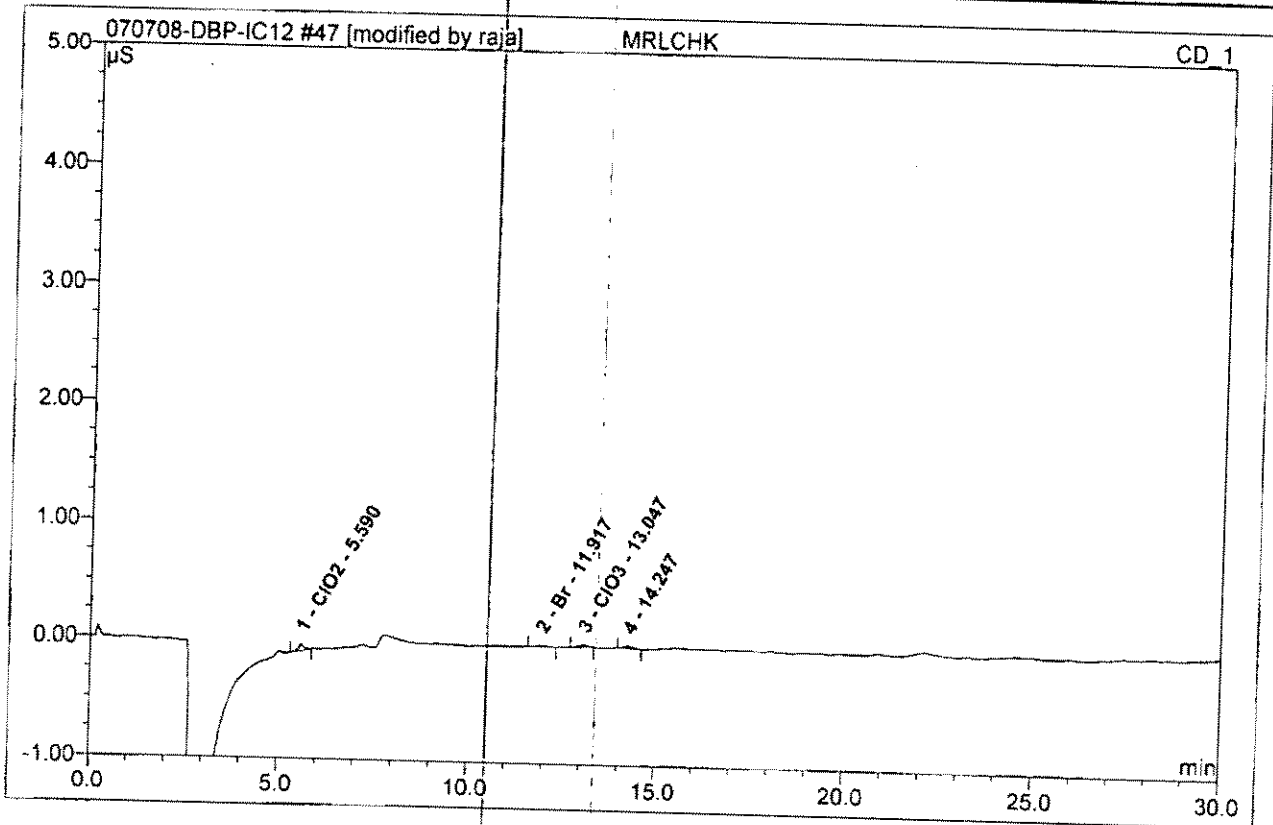
No.	Ret. Time min	Peak Name	Height μS	Area μS*min	Rel. Area %	Amount ppb	Type
1	5.59	ClO2	1.059	0.191	41.97	197.726	BMB
2	11.91	Br	0.275	0.094	20.65	103.346	BMB
3	13.01	ClO3	0.449	0.170	37.39	208.555	BMB
Total:			1.783	0.454	100.00	509.627	

46 CCB	
Sample Name: CCB Vial Number: 337 Sample Type: unknown Control Program: IC12 test Program Quantif. Method: DBP-Method Recording Time: 7/8/2008 7:56 Run Time (min): 30.00	Injection Volume: 1000.0 Channel: CD_1 Wavelength: n.a. Bandwidth: n.a. Dilution Factor: 1.0000 Sample Weight: 1.0000 Sample Amount: 1.0000



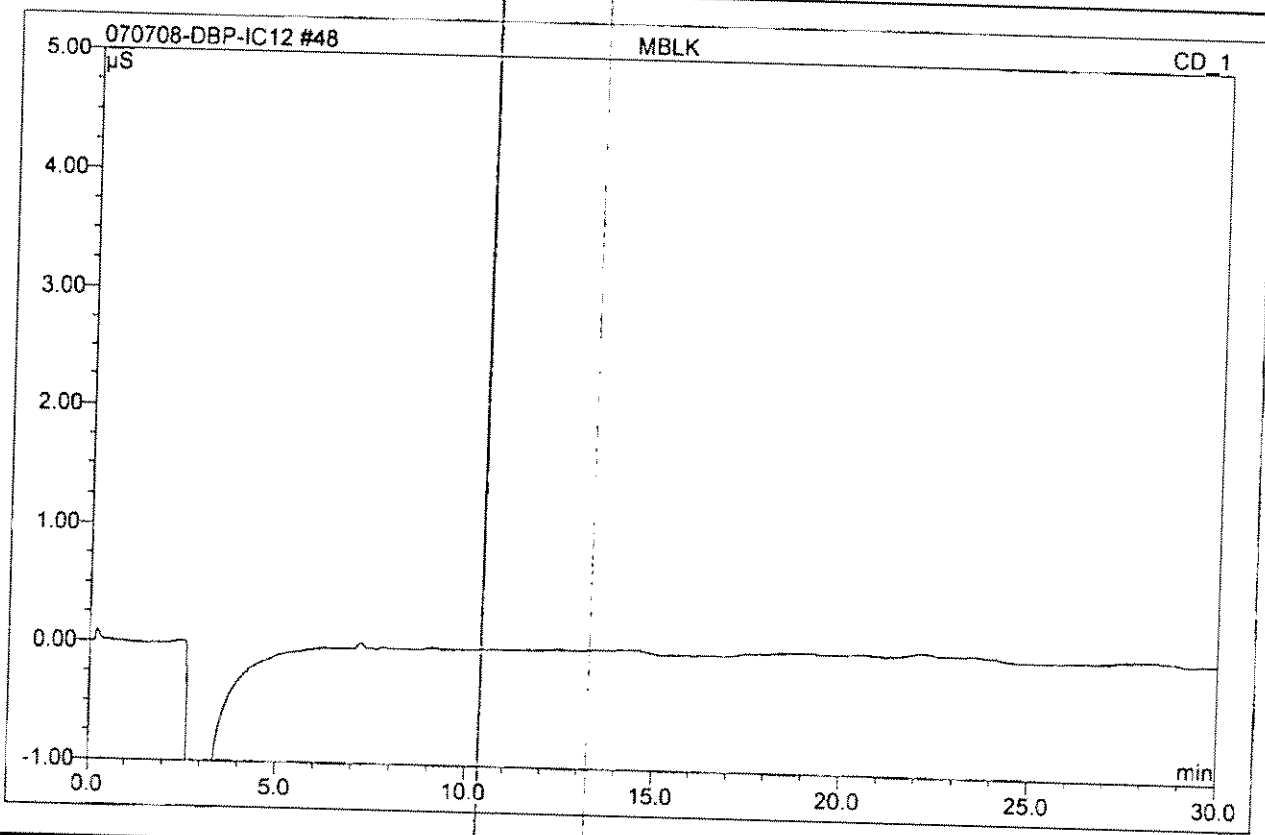
No.	Ret. Time min	Peak Name	Height μS	Area $\mu\text{S}\cdot\text{min}$	Rel. Area %	Amount ppb	Type
Total:			0.000	0.000	0.00	0.000	

47 MRLCHK			
Sample Name:	MRLCHK	Injection Volume:	1000.0
Vial Number:	338	Channel:	CD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	IC12 test Program	Bandwidth:	n.a.
Quantif. Method:	DBP-Method	Dilution Factor:	1.0000
Recording Time:	7/8/2008 8:28	Sample Weight:	1.0000
Run Time (min):	30.00	Sample Amount:	1.0000



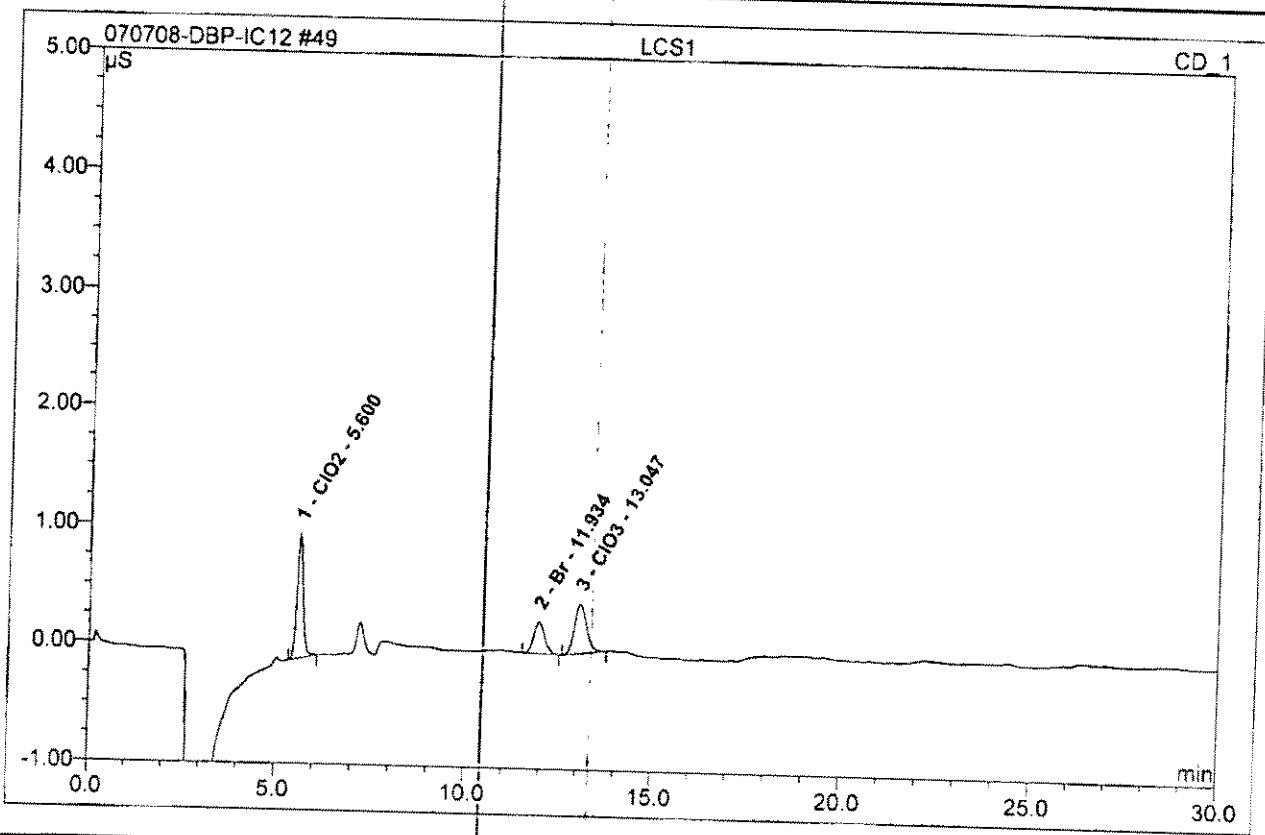
No.	Ret. Time min	Peak Name	Height µS	Area µS*min	Rel. Area %	Amount ppb	Type
1	5.59	ClO2	0.051	0.009	35.85	9.754	BMB
2	11.92	Br	0.013	0.004	16.78	4.849	BMB*
3	13.05	ClO3	0.019	0.006	23.98	7.725	BMB
4	14.25	n.a.	0.019	0.006	23.39	n.a.	BMB
Total:			0.102	0.026	100.00	22.329	

48 MBLK			
Sample Name:	MBLK	Injection Volume:	1000.0
Vial Number:	339	Channel:	CD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	IC12 test Program	Bandwidth:	n.a.
Quantif. Method:	DBP-Method	Dilution Factor:	1.0000
Recording Time:	7/8/2008 9:01	Sample Weight:	1.0000
Run Time (min):	30.00	Sample Amount:	1.0000



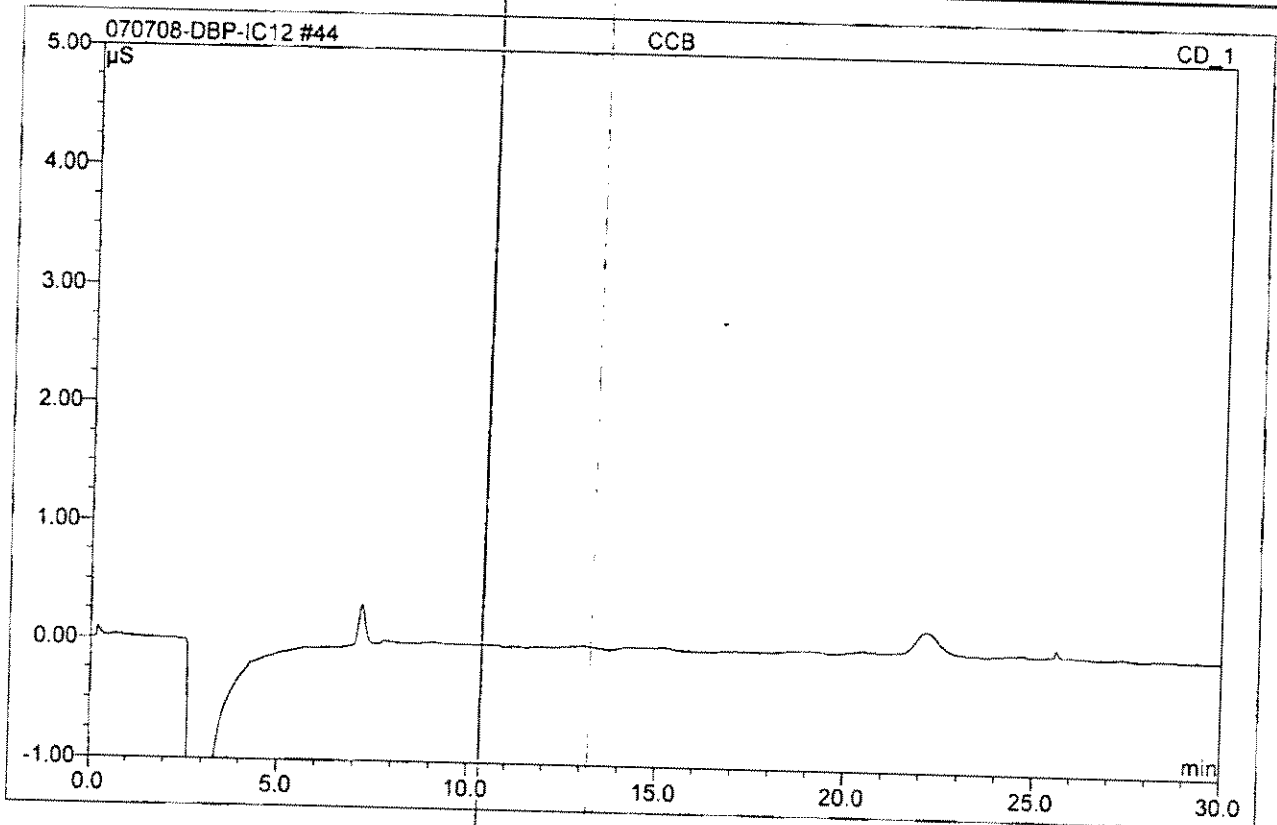
No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount ppb	Type
Total:			0.000	0.000	0.00	0.000	

49 LCS1	
Sample Name: LCS1	Injection Volume: 1000.0
Vial Number: 340	Channel: CD_1
Sample Type: unknown	Wavelength: n.a.
Control Program: IC12 test Program	Bandwidth: n.a.
Quantif. Method: DBP-Method	Dilution Factor: 1.0000
Recording Time: 7/8/2008 9:33	Sample Weight: 1.0000
Run Time (min): 30.00	Sample Amount: 1.0000



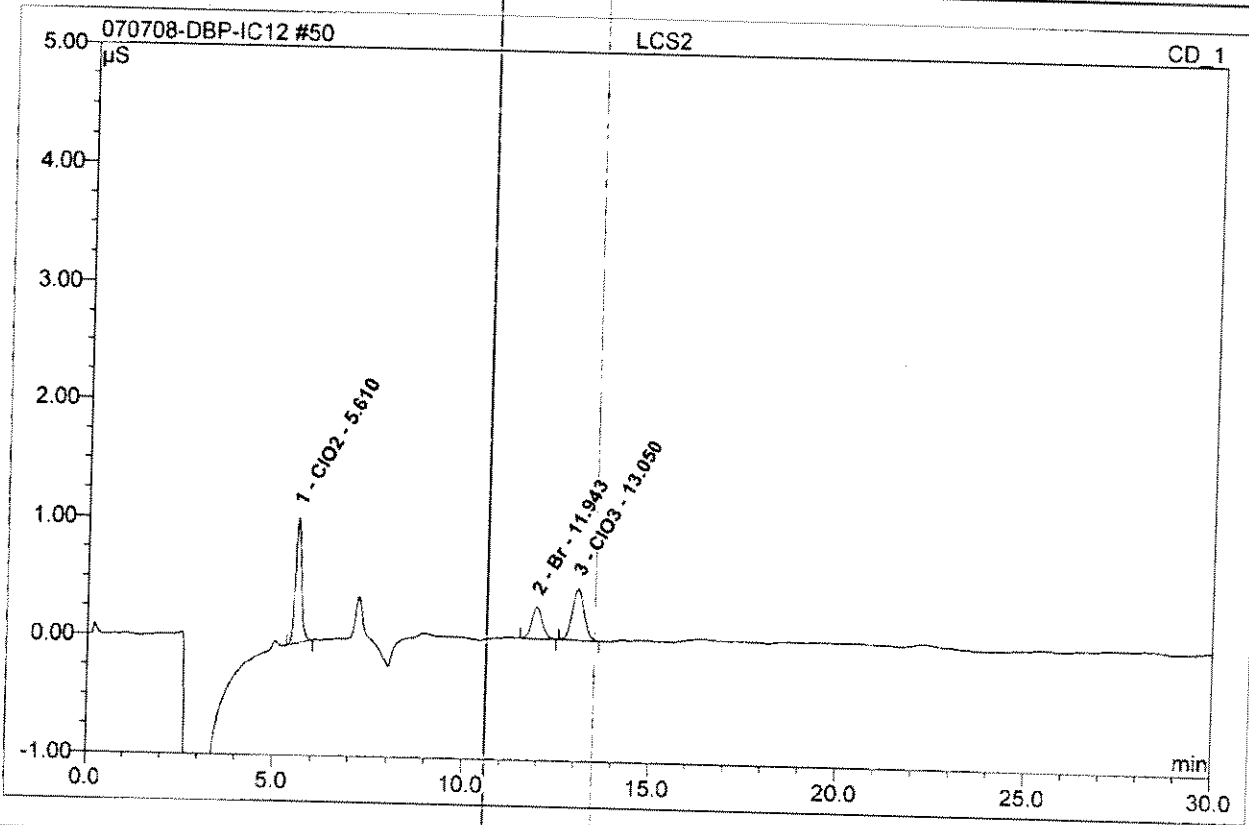
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount ppb	Type
1	5.60	ClO2	1.050	0.196	43.87	202.798	BMB
2	11.93	Br	0.272	0.092	20.71	101.714	BMB
3	13.05	ClO3	0.421	0.158	35.41	193.816	BMB
Total:			1.743	0.446	100.00	498.327	

44 CCB			
Sample Name:	CCB	Injection Volume:	1000.0
Vial Number:	335	Channel:	CD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	IC12 test Program	Bandwidth:	n.a.
Quantif. Method:	DBP-Method	Dilution Factor:	1.0000
Recording Time:	7/8/2008 6:51	Sample Weight:	1.0000
Run Time (min):	30.00	Sample Amount:	1.0000



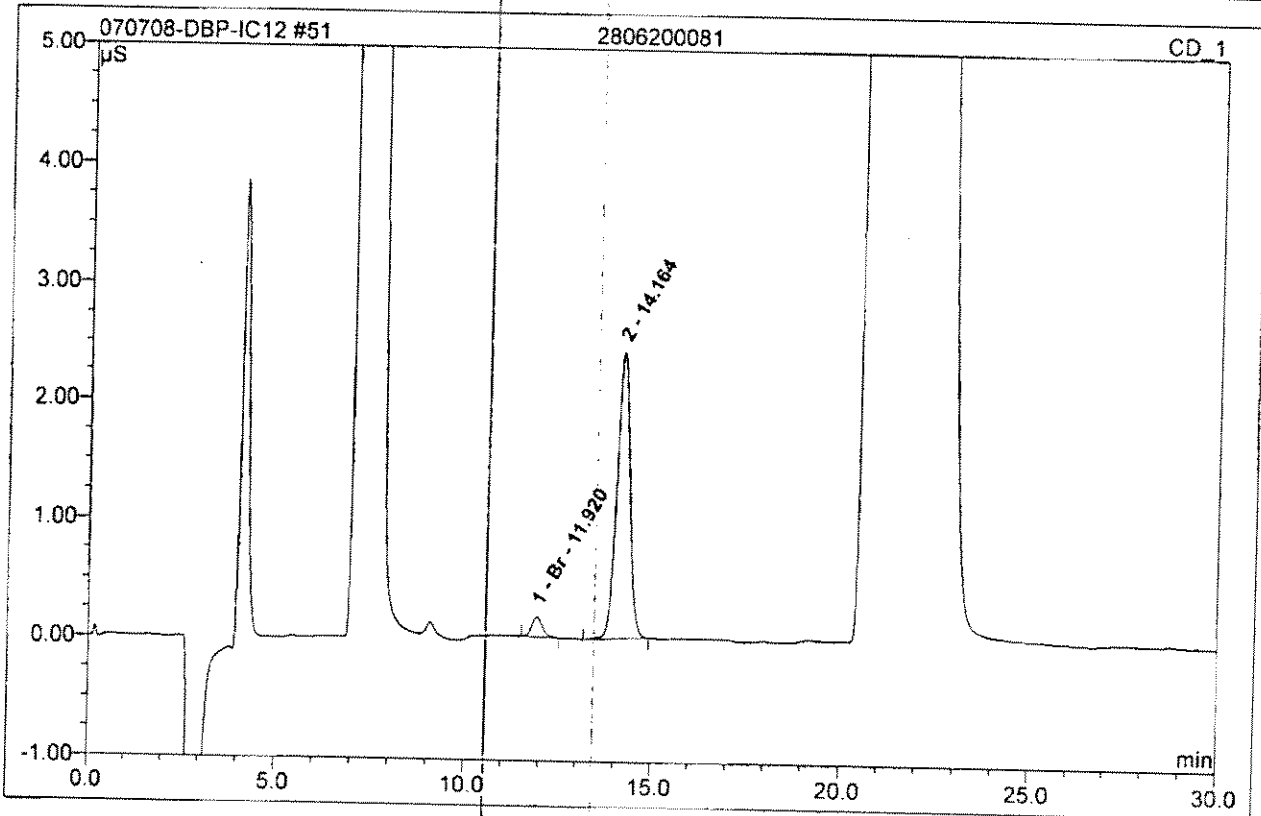
No.	Ret. Time min	Peak Name	Height μS	Area $\mu\text{S}\cdot\text{min}$	Rel. Area %	Amount ppb	Type
Total:			0.000	0.000	0.00	0.000	

50 LCS2			
Sample Name:	LCS2	Injection Volume:	1000.0
Vial Number:	341	Channel:	CD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	IC12 test Program	Bandwidth:	n.a.
Quantif. Method:	DBP-Method	Dilution Factor:	1.0000
Recording Time:	7/8/2008 10:06	Sample Weight:	1.0000
Run Time (min):	30.00	Sample Amount:	1.0000



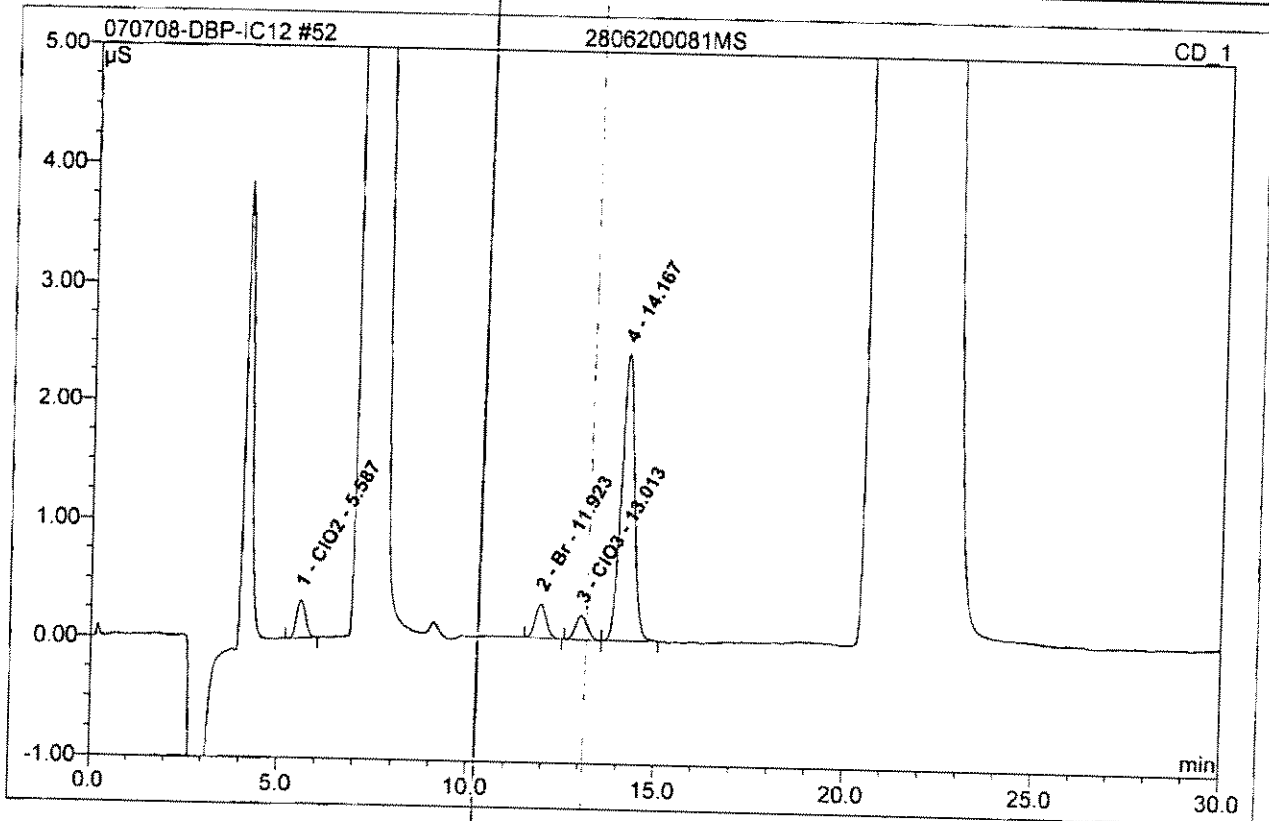
No.	Ret. Time min	Peak Name	Height µS	Area µS*min	Rel. Area %	Amount ppb	Type
1	5.61	ClO2	1.062	0.193	42.97	200.020	BMB
2	11.94	Br	0.270	0.091	20.30	100.383	BMB
3	13.05	ClO3	0.440	0.165	36.73	202.454	BMB
Total:			1.772	0.449	100.00	502.857	

51 2806200081			
CLO3			
Sample Name:	2806200081	Injection Volume:	1000.0
Vial Number:	342	Channel:	CD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	IC12 test Program	Bandwidth:	n.a.
Quantif. Method:	DBP-Method	Dilution Factor:	1.0000
Recording Time:	7/8/2008 10:38	Sample Weight:	1.0000
Run Time (min):	30.00	Sample Amount:	1.0000



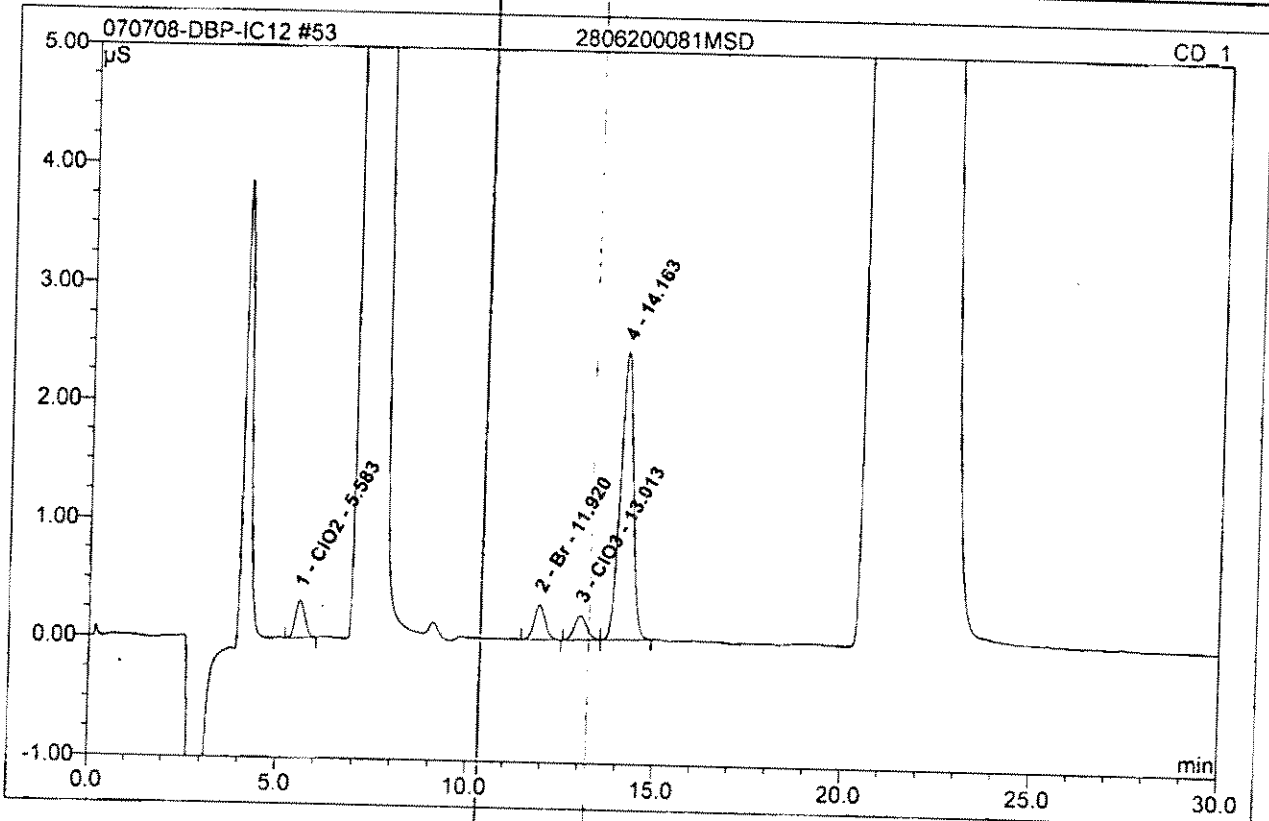
No.	Ret. Time min	Peak Name	Height µS	Area µS*min	Rel. Area %	Amount ppb	Type
1	11.92	Br	0.167	0.057	5.46	62.288	BMB
2	14.16	n.a.	2.414	0.980	94.54	n.a.	BMB
Total:			2.581	1.036	100.00	62.288	

52 2806200081MS			
Sample Name:	2806200081MS	Injection Volume:	1000.0
Vial Number:	343	Channel:	CD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	IC12 test Program	Bandwidth:	n.a.
Quantif. Method:	DBP-Method	Dilution Factor:	1.0000
Recording Time:	7/8/2008 11:10	Sample Weight:	1.0000
Run Time (min):	30.00	Sample Amount:	1.0000



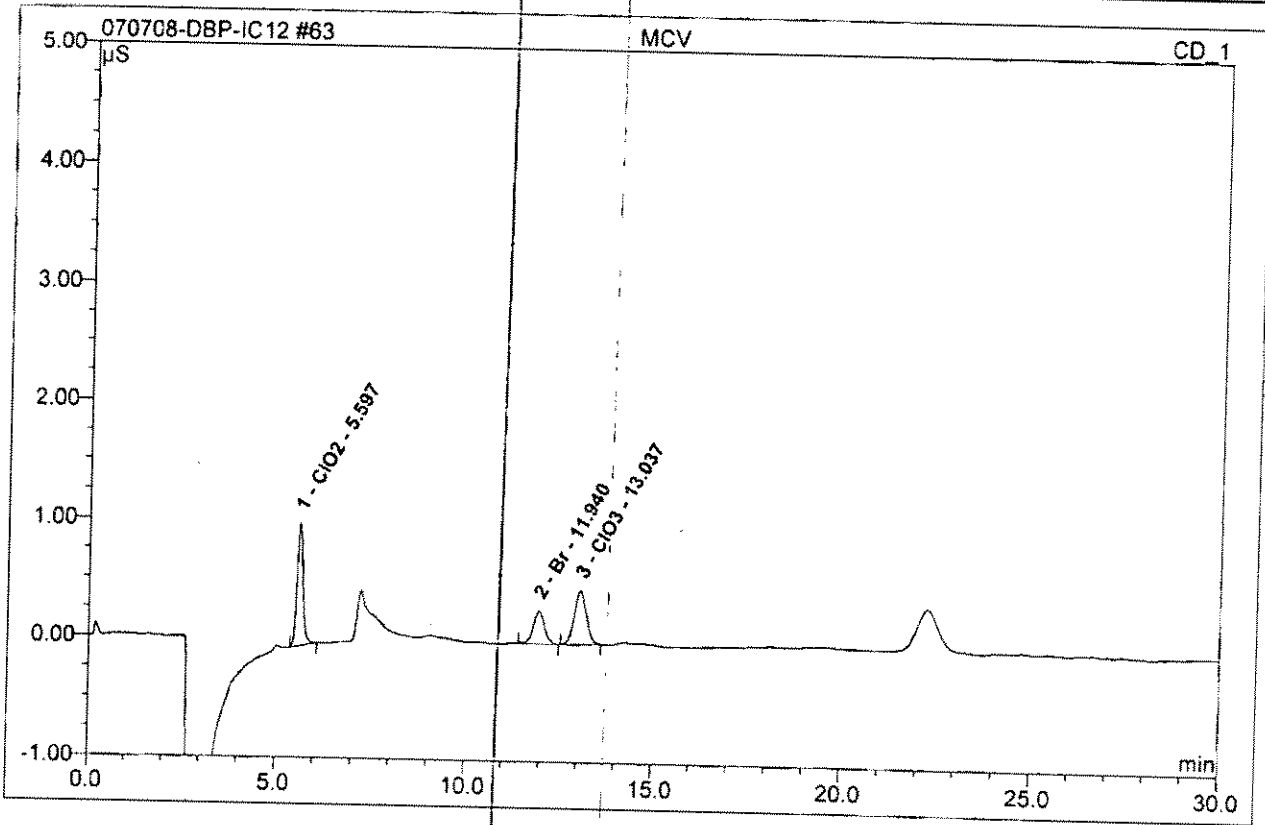
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount ppb	Type
1	5.59	ClO2	0.319	0.090	7.23	93.179	BMB
2	11.92	Br	0.288	0.098	7.85	107.472	BMB
3	13.01	ClO3	0.204	0.076	6.13	93.557	BMB
4	14.17	n.a.	2.425	0.978	78.78	n.a.	BMB
Total:			3.235	1.242	100.00	294.207	

53 2806200081MSD			
Sample Name:	2806200081MSD	Injection Volume:	1000.0
Vial Number:	344	Channel:	CD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	IC12 test Program	Bandwidth:	n.a.
Quantif. Method:	DBP-Method	Dilution Factor:	1.0000
Recording Time:	7/8/2008 11:43	Sample Weight:	1.0000
Run Time (min):	30.00	Sample Amount:	1.0000



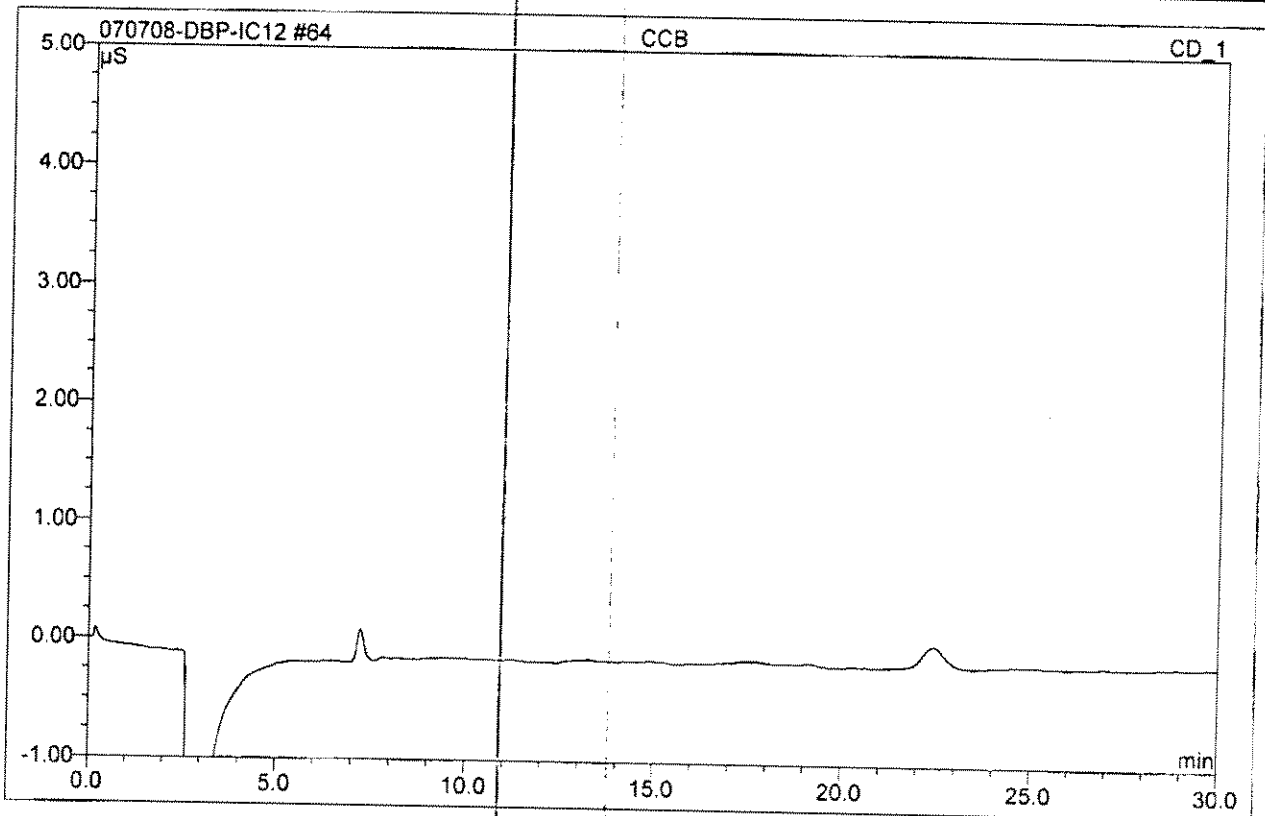
No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount ppb	Type
1	5.58	ClO2	0.315	0.091	7.31	93.977	BMB
2	11.92	Br	0.294	0.101	8.16	111.457	BMB
3	13.01	ClO3	0.207	0.078	6.30	96.002	BM
4	14.16	n.a.	2.430	0.970	78.23	n.a.	MB
Total:			3.246	1.240	100.00	301.435	

63 MCV			
200/100/200			
Sample Name:	MCV	Injection Volume:	1000.0
Vial Number:	354	Channel:	CD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	IC12 test Program	Bandwidth:	n.a.
Quantif. Method:	DBP-Method	Dilution Factor:	1.0000
Recording Time:	7/8/2008 18:10	Sample Weight:	1.0000
Run Time (min):	30.00	Sample Amount:	1.0000



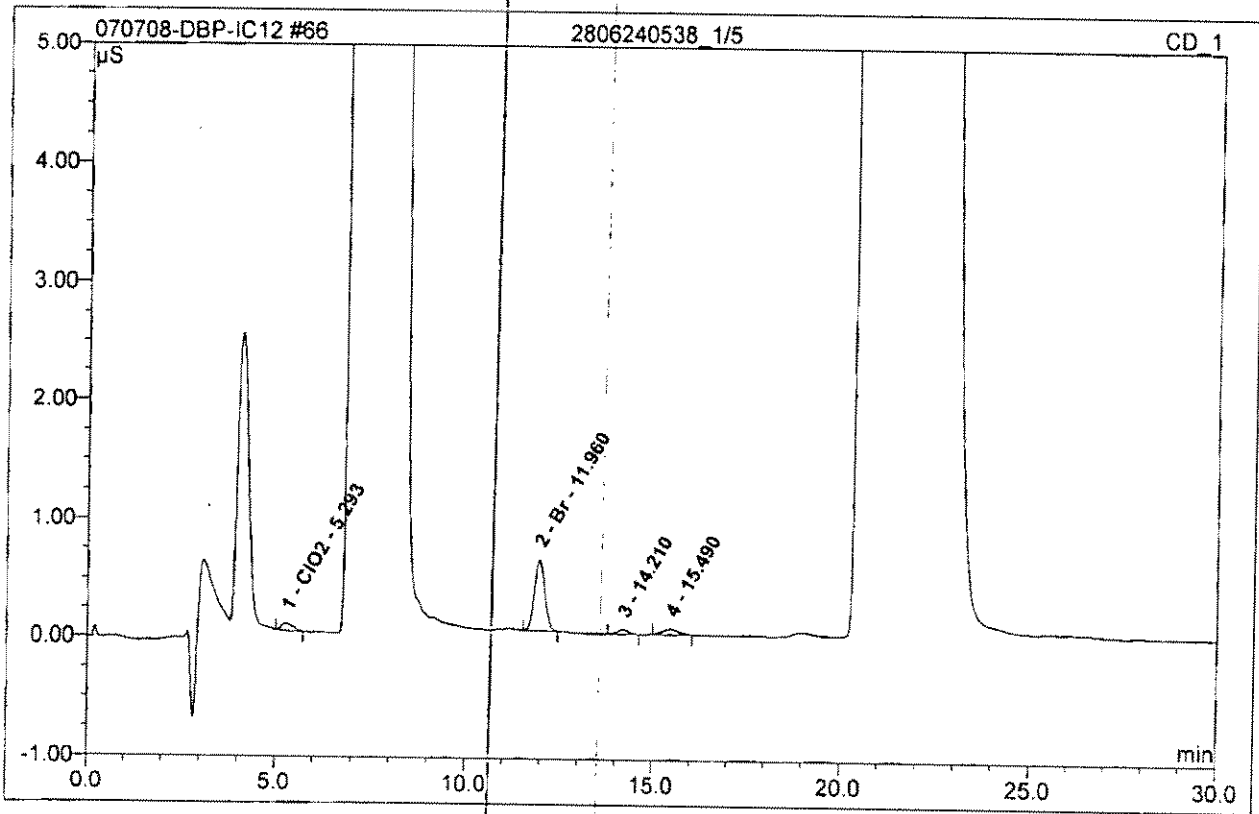
No.	Ret. Time min	Peak Name	Height µS	Area µS*min	Rel. Area %	Amount ppb	Type
1	5.60	ClO2	1.038	0.190	41.67	196.782	BMB
2	11.94	Br	0.275	0.097	21.21	106.422	BMB
3	13.04	ClO3	0.451	0.169	37.11	207.498	BMB
Total:			1.764	0.455	100.00	510.702	

64 CCB			
Sample Name:	CCB	Injection Volume:	1000.0
Vial Number:	355	Channel:	CD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	IC12 test Program	Bandwidth:	n.a.
Quantif. Method:	DBP-Method	Dilution Factor:	1.0000
Recording Time:	7/8/2008 18:42	Sample Weight:	1.0000
Run Time (min):	30.00	Sample Amount:	1.0000



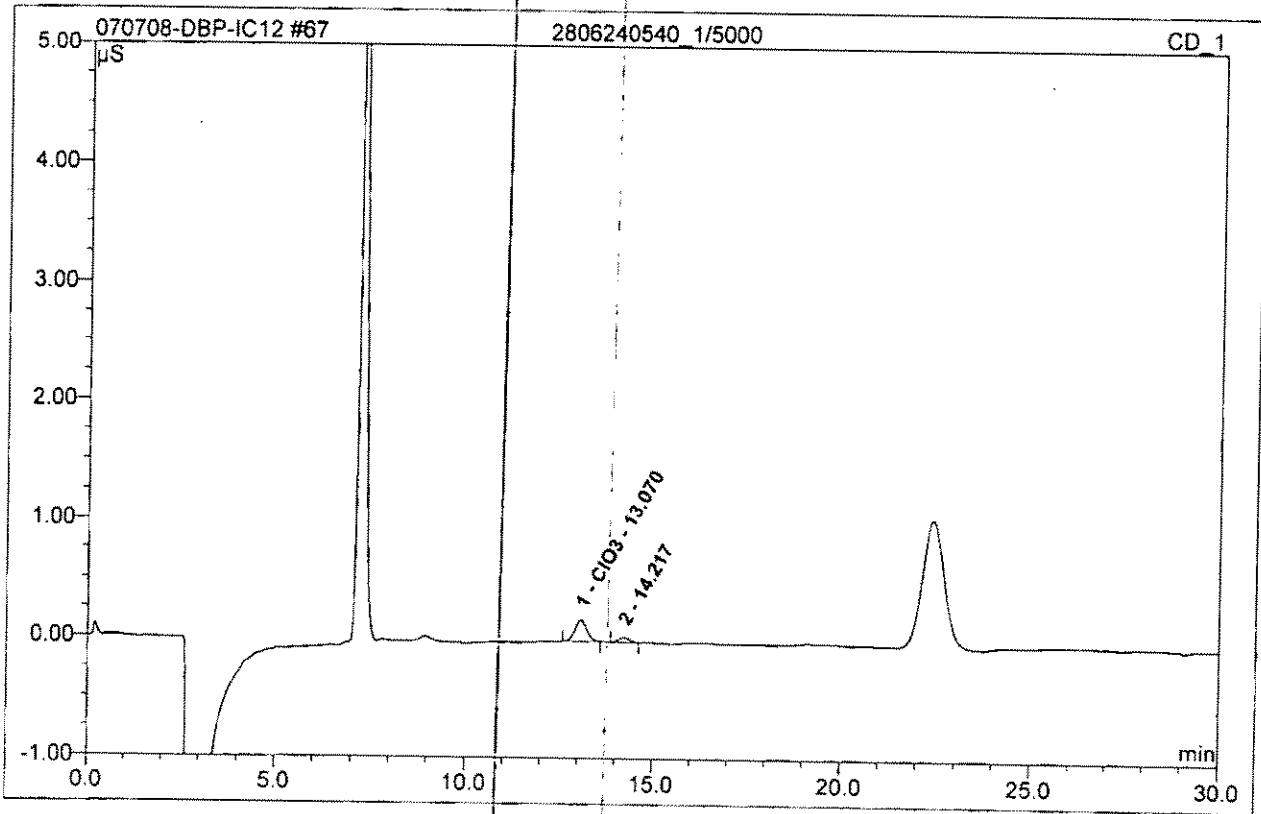
No.	Ret. Time min	Peak Name	Height μS	Area $\mu\text{S}\cdot\text{min}$	Rel. Area %	Amount ppb	Type
Total:			0.000	0.000	0.00	0.000	

66 2806240538_1/5			
CLO3			
Sample Name:	2806240538_1/5	Injection Volume:	1000.0
Vial Number:	357	Channel:	CD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	IC12 test Program	Bandwidth:	n.a.
Quantif. Method:	DBP-Method	Dilution Factor:	5.0000
Recording Time:	7/8/2008 19:47	Sample Weight:	1.0000
Run Time (min):	30.00	Sample Amount:	1.0000



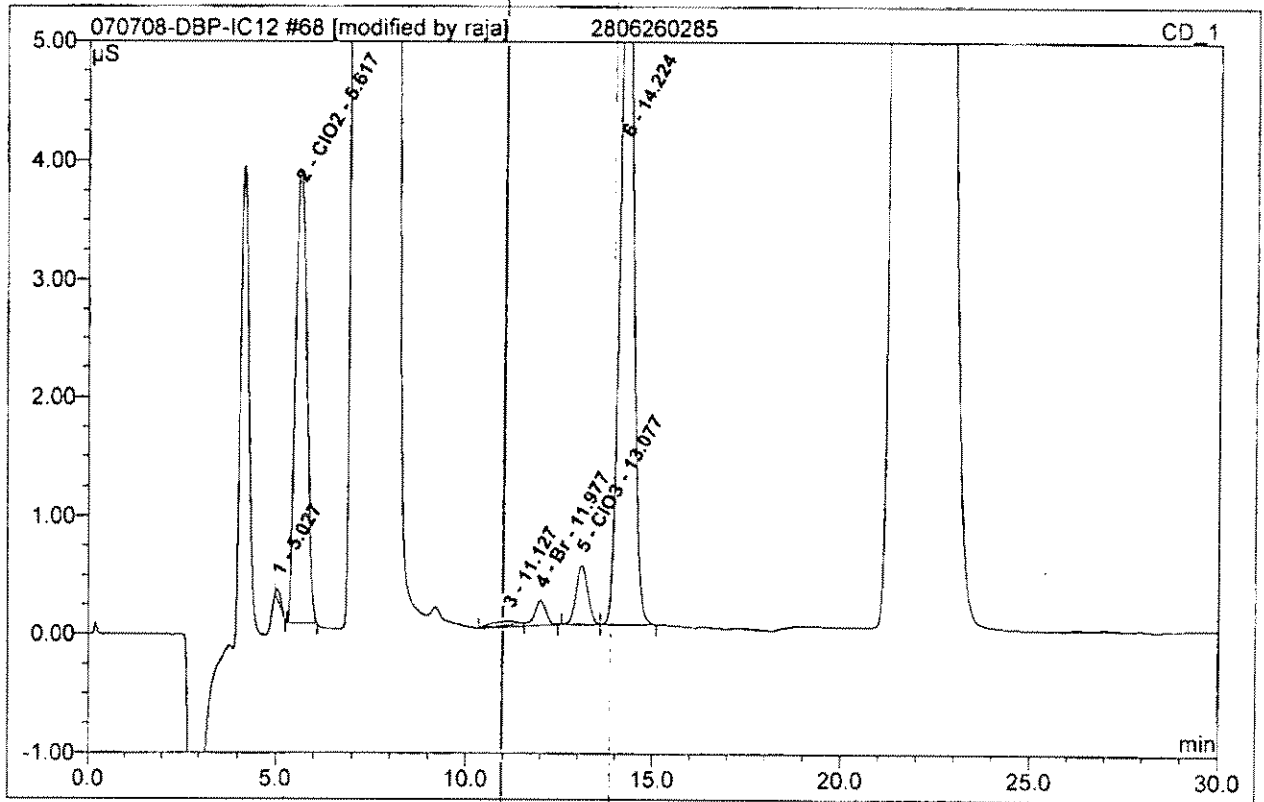
No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount ppb	Type
1	5.29	ClO2	0.066	0.023	9.12	121.267	BMB
2	11.96	Br	0.600	0.195	76.05	1074.513	BMB
3	14.21	n.a.	0.038	0.014	5.64	n.a.	BMB
4	15.49	n.a.	0.048	0.024	9.20	n.a.	BMB
Total:			0.752	0.256	100.00	1195.780	

67 2806240540_1/5000			
CLO3			
Sample Name:	2806240540_1/5000	Injection Volume:	1000.0
Vial Number:	358	Channel:	CD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	IC12 test Program	Bandwidth:	n.a.
Quantif. Method:	DBP-Method	Dilution Factor:	5000.0000
Recording Time:	7/8/2008 20:20	Sample Weight:	1.0000
Run Time (min):	30.00	Sample Amount:	1.0000



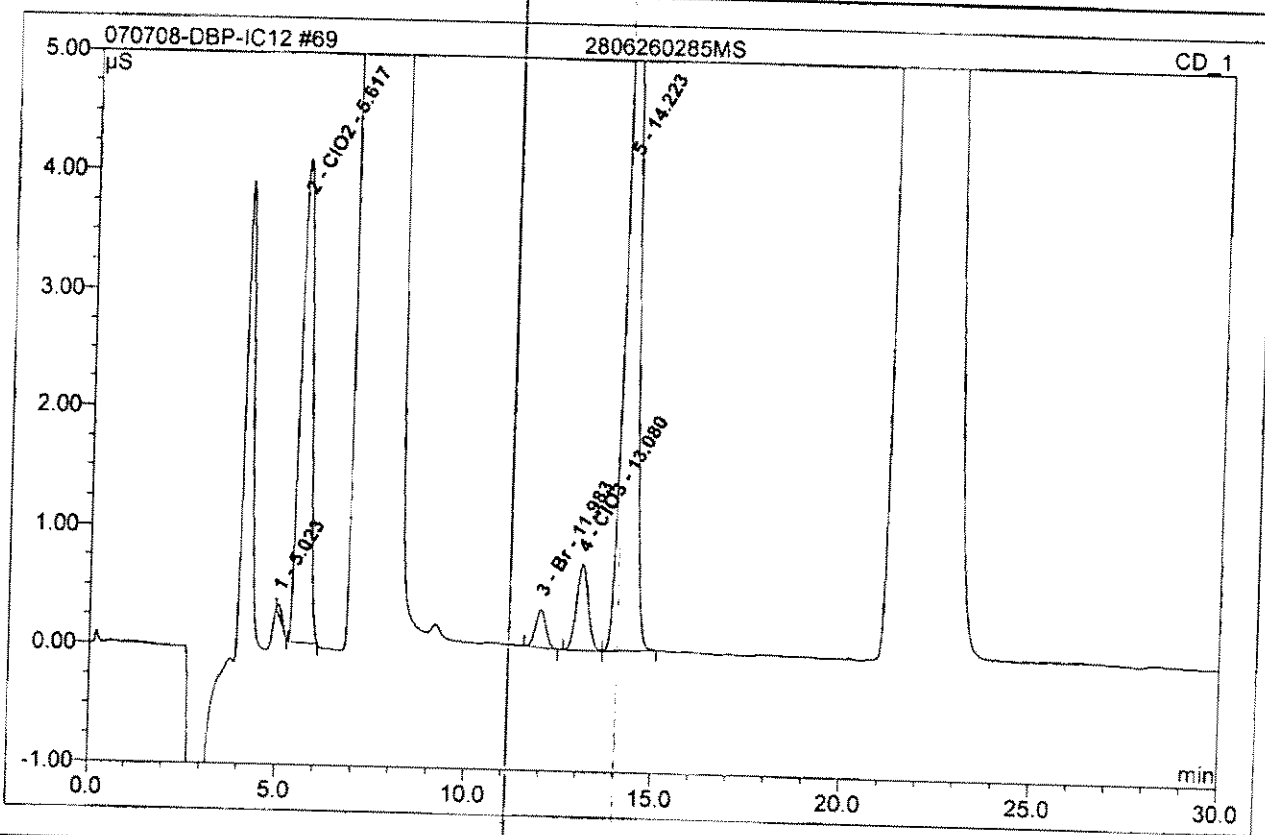
No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount ppb	Type
1	13.07	ClO3	0.180	0.067	82.34	410840.451	BMB
2	14.22	n.a.	0.039	0.014	17.66	n.a.	BMB
Total:			0.219	0.081	100.00	410840.451	

68 2806260285			
CLO3			
Sample Name:	2806260285	Injection Volume:	1000.0
Vial Number:	359	Channel:	CD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	IC12 test Program	Bandwidth:	n.a.
Quantif. Method:	DBP-Method	Dilution Factor:	1.0000
Recording Time:	7/8/2008 20:52	Sample Weight:	1.0000
Run Time (min):	30.00	Sample Amount:	1.0000



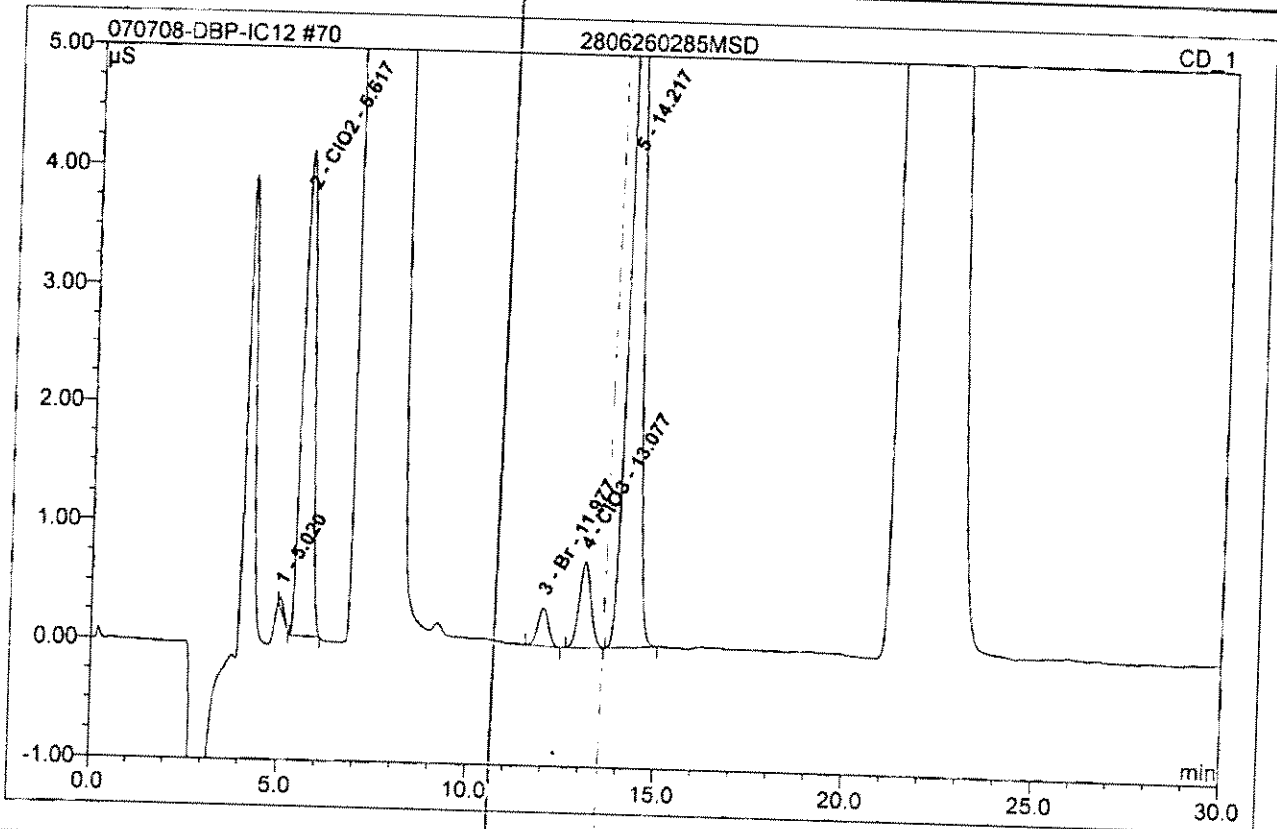
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount ppb	Type
1	5.03	n.a.	0.095	0.016	0.38	n.a.	BMB
2	5.62	ClO2	3.827	1.335	31.07	1384.681	BMB
3	11.13	n.a.	0.036	0.028	0.65	n.a.	Ru
4	11.98	Br	0.212	0.092	2.15	101.603	BMB*
5	13.08	ClO3	0.498	0.183	4.27	225.331	BM *
6	14.22	n.a.	6.702	2.642	61.48	n.a.	MB*
Total:			11.371	4.297	100.00	1711.616	

69 2806260285MS	
Sample Name: 2806260285MS	Injection Volume: 1000.0
Vial Number: 360	Channel: CD_1
Sample Type: unknown	Wavelength: n.a.
Control Program: IC12 test Program	Bandwidth: n.a.
Quantif. Method: DBP-Method	Dilution Factor: 1.0000
Recording Time: 7/8/2008 21:24	Sample Weight: 1.0000
Run Time (min): 30.00	Sample Amount: 1.0000



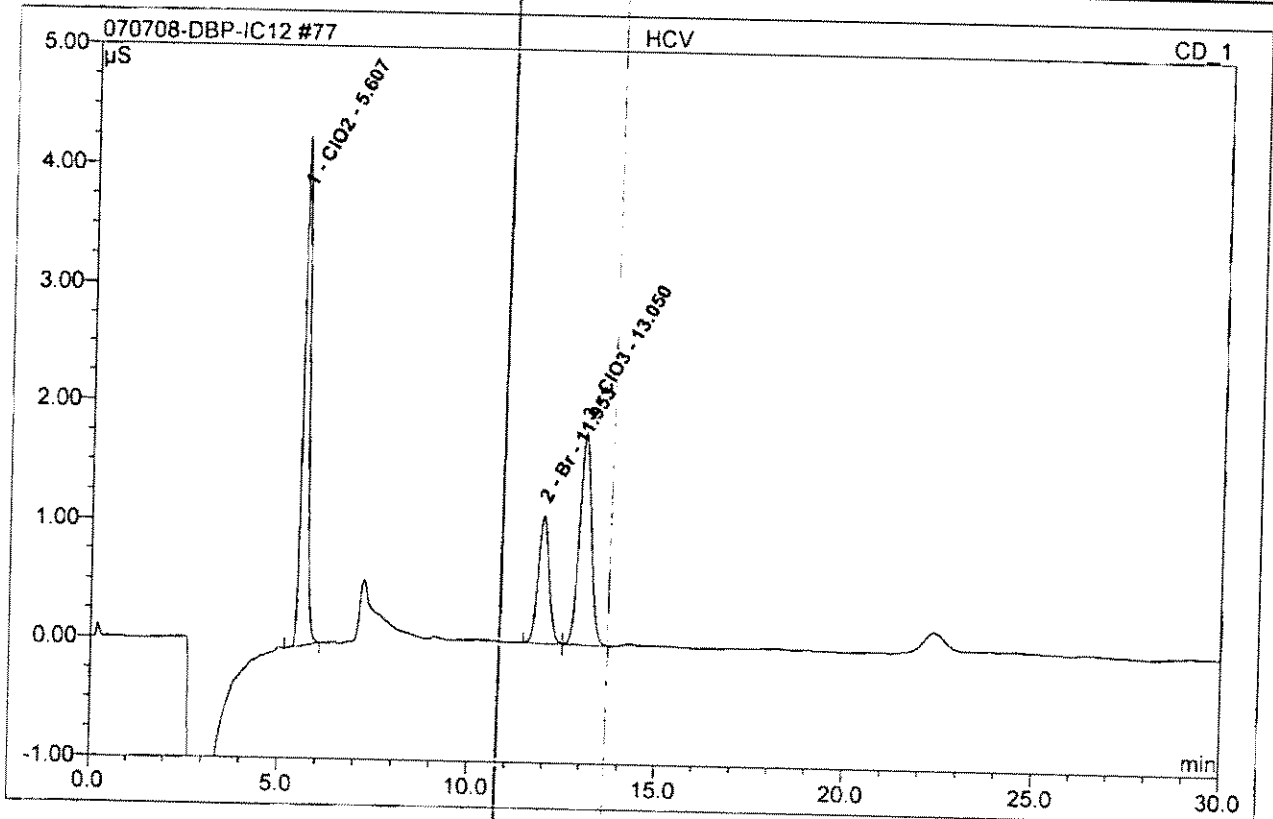
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount ppb	Type
1	5.02	n.a.	0.092	0.016	0.37	n.a.	BMB
2	5.62	ClO2	4.084	1.418	32.09	1470.812	BMB
3	11.98	Br	0.324	0.105	2.38	115.871	BMB
4	13.08	ClO3	0.724	0.266	6.01	326.281	BMB
5	14.22	n.a.	6.650	2.614	59.15	n.a.	BMB
Total:			11.874	4.419	100.00	1912.963	

70 2806260285MSD			
Sample Name:	2806260285MSD	Injection Volume:	1000.0
Vial Number:	361	Channel:	CD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	IC12 test Program	Bandwidth:	n.a.
Quantif. Method:	DBP-Method	Dilution Factor:	1.0000
Recording Time:	7/8/2008 21:57	Sample Weight:	1.0000
Run Time (min):	30.00	Sample Amount:	1.0000



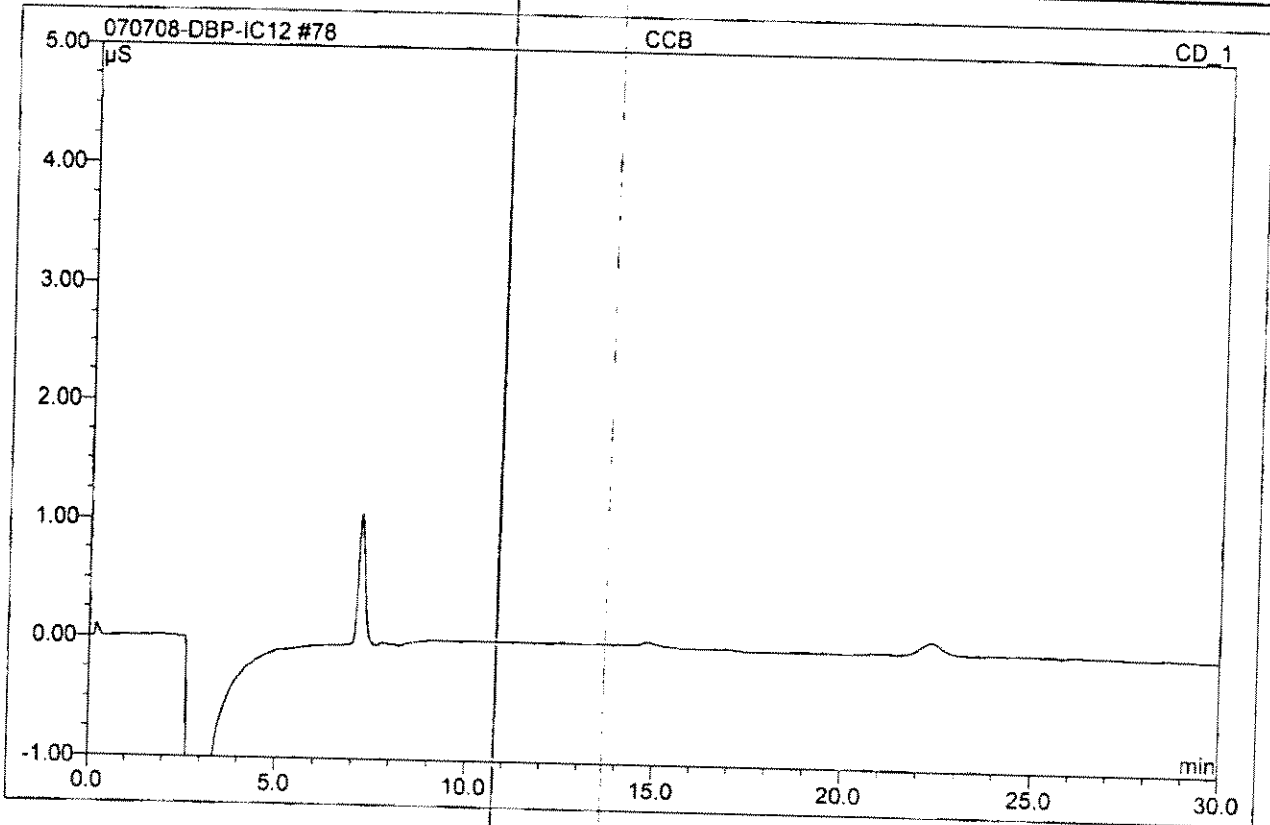
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount ppb	Type
1	5.02	n.a.	0.087	0.016	0.35	n.a.	BMB
2	5.62	ClO2	4.096	1.422	32.20	1475.115	BMB
3	11.98	Br	0.324	0.106	2.39	116.329	BMB
4	13.08	ClO3	0.723	0.264	5.98	324.278	BMB
5	14.22	n.a.	6.644	2.609	59.08	n.a.	BMB
Total:			11.873	4.417	100.00	1915.723	

77 HCV			
Sample Name:	HCV	Injection Volume:	1000.0
Vial Number:	368	Channel:	CD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	IC12 test Program	Bandwidth:	n.a.
Quantif. Method:	DBP-Method	Dilution Factor:	1.0000
Recording Time:	7/9/2008 1:44	Sample Weight:	1.0000
Run Time (min):	30.00	Sample Amount:	1.0000



No.	Ret. Time min	Peak Name	Height μS	Area μS*min	Rel. Area %	Amount ppb	Type
1	5.61	ClO2	4.292	0.777	42.88	806.393	BMB
2	11.95	Br	1.079	0.366	20.17	402.941	BMB
3	13.05	ClO3	1.789	0.670	36.95	822.852	BMB
Total:			7.161	1.813	100.00	2032.186	

78 CCB			
Sample Name:	CCB	Injection Volume:	1000.0
Vial Number:	369	Channel:	CD_1
Sample Type:	unknown	Wavelength:	n.a.
Control Program:	IC12 test Program	Bandwidth:	n.a.
Quantif. Method:	DBP-Method	Dilution Factor:	1.0000
Recording Time:	7/9/2008 2:16	Sample Weight:	1.0000
Run Time (min):	30.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area $\mu\text{S}\cdot\text{min}$	Rel.Area %	Amount ppb	Type
Total:			0.000	0.000	0.00	0.000	

**Standard
Preparation
Worksheet
&
Certificate of
Analysis**

Reagent Preparation Documentation

Page: 29

Reagent: 9.0 HCV For TOC
Date Received/Prepped: 083107 1 1 1 1
Date Expired: 023108 1 1 1 1
Manufacturer: _____
Storage Condition: _____

MW #: Raja070831-03
By: Raja
Matrix: aq
Amount: 500ml
Lot #: _____

Component	Comment	Standard	Concentration
Carbon std. organic Exp: 07-31-09	4.5ml into a 500ml flask dilute with D.I. water and add 8 drops of H ₂ SO ₄	R201692	9.0 ppm

Comment: _____

Reagent: DBP Calibration Stock Solution
Date Received/Prepped: 061608/062608 1 1 1
Date Expired: 071608/072608 1 1 1
Manufacturer: _____
Storage Condition: _____

MW #: Raja080616-1
By: Raja
Matrix: aq
Amount: 100ml
Lot #: _____

Component	Comment	Standard	Concentration
Bromide 1000ppm Exp: 06-01-09	500ul } Add 50ul EDA solution [TLH071029-17 and dilute	R201865	5ppm
Chlorate 1000ppm Exp: 06-01-09	1000ul } to 100ml of d.i. water	R201863	10ppm
Chlorite 1000ppm Exp: 06-01-09	100ul }	R201864	10ppm

Comment: _____

Reagent: DBP Standard for Calibration #1
Date Received/Prepped: 061608/062608 1 1 1
Date Expired: 071608/072608 1 1 1
Manufacturer: _____
Storage Condition: _____

MW #: Raja080616-2
By: Raja
Matrix: aq
Amount: 100ml
Lot #: _____

Component	Comment	Standard	Concentration
DBP stock solution	2 ^{pp} 100ul } Dilute with D.I. water to 100ml	Raja080616-1	Br- 5ppb
EDA	50ul }	TLH071029-1	ClO ₂ - 10ppb
			ClO ₃ - 10ppb

Comment: _____

Reagent Preparation Documentation

Reagent: DBP Calibration Standard #2
Date Received/Prepped: 061608/0626081 / / /
Date Expired: 071608/0726081 / / /
Manufacturer: _____
Storage Condition: _____

MW #: Raja 080616-3
By: Raja
Matrix: aq
Amount: 100ml
Lot #: _____

Component	Comment	Standard	Concentration
DBP Cali Stock Soln	200ul } Dilute to 100ml with D.I water	Raja080616-1	Br = 10ppb
EDA	50ml }	TLH071029-1	ClO ₂ /ClO ₃ = 20ppb

Comment: _____

Reagent: DBP Calibration Standard #3
Date Received/Prepped: 061608/0626081 / / /
Date Expired: 071608/0726081 / / /
Manufacturer: _____
Storage Condition: _____

MW #: Raja080616-4
By: Raja
Matrix: aq
Amount: 100ml
Lot #: _____

Component	Comment	Standard	Concentration
DBP Cali Stock Soln	1ml } Dilute to 100ml with D.I. water	Raja080616-1	Br = 50ppb
EDA	50ml }	TLH071029-1	ClO ₂ /ClO ₃ = 100ppb

Comment: _____

Reagent: DBP calibration Standard #4
Date Received/Prepped: 061608/0626081 / / /
Date Expired: 071608/0726081 / / /
Manufacturer: _____
Storage Condition: _____

MW #: Raja080616-5
By: Raja
Matrix: aq
Amount: 100ml
Lot #: _____

Component	Comment	Standard	Concentration
DBP Cali Stock Soln	2ml } Dilute to 100ml with D.I. water	Raja080616-01	Br = 100ppb
EDA	50ml }	TLH071029-1	ClO ₂ /ClO ₃ = 20ppb

Comment: _____

Reagent Preparation Documentation

Reagent: DBP Calibration Standard #5
Date Received/Prepped: 061608/062608 1 1 1
Date Expired: 101608/072608 1 1 1
Manufacturer: _____
Storage Condition: _____

MW #: Raja 080616-6
By: Raja
Matrix: air
Amount: 100ml
Lot #: _____

Component	Comment	Standard	Concentration
DBP Calib. Stock sol'n	4ml } Dilute to 100ml with D.I. water	Raja080616-1	Br = 200ppb
EDA	50ML }	TLH071029-1	ClO ₂ /ClO ₃ = 400ppb

Comment: _____

Reagent: DBP Calibration standard #6
Date Received/Prepped: 061608/062608 1 1 1
Date Expired: 071608/072608 1 1 1
Manufacturer: _____
Storage Condition: _____

MW #: Raja080616-7
By: Raja
Matrix: air
Amount: 100ml
Lot #: _____

Component	Comment	Standard	Concentration
DBP Calib. Stock sol'n	8ml } Dilute to 100ml with D.I. Water	Raja080616-1	Br = 400ppb
EDA	50ML }	TLH071029-1	ClO ₂ /ClO ₃ = 800ppb

Comment: _____

Reagent: DBP LCS Stock Solution
Date Received/Prepped: 061608/062608 1 1 1
Date Expired: 071608/072608 1 1 1
Manufacturer: _____
Storage Condition: _____

MW #: Raja080616-8
By: Raja
Matrix: air
Amount: 100ml
Lot #: _____

Component	Comment	Standard	Concentration
Bromide 1000ppm Exp: 07-27-10	500ul } Add 50ul of EDA [TLH071029-1] then dilute to 100ml with D.I. water	R201709	Br = 5ppm
ClO ₂ 1000ppm Exp: 12-19-08	1ml }	R201797	ClO ₂ /ClO ₃ = 10ppm
Chlorate 1000ppm Exp: 05-31-09	1ml }	R201400 <small>R2 0616-06</small>	

Comment: _____

1.0 INORGANIC VENTURES is an ISO Guide 34:2000 registered Certified Reference Material (CRM) Manufacturer (Certificate #883-02). The certificate is designed and the data is determined in accordance with ISO Guide 31:2000 (Reference Materials-Contents of Certificates and Labels), ISO Guide 34:2000 "Quality System Guidelines for the Production of Reference Materials," and ISO Guide 35:1989 "Certification of Reference Materials - General and Statistical Principles."

2.0 DESCRIPTION OF CRM Ion Chromatography 1000 µg/mL Chlorate in H2O

Catalog Number: ICCLO31-1 and ICCLO31-5
 Lot Number: **A2-CLOX01044**
 Starting Material: Potassium Chlorate
 Starting Material Purity (%): 99.9900
 Starting Material Lot No.: 02407TF
 Matrix: H2O

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Concentration: 994 ± 2 µg/mL

Certified Density: 0.999 g/mL (measured at 22° C)

The Certified Value is based upon the most precise method used to analyze this CRM. The following equations are used in the calculation of the certified value and the uncertainty:

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n}$$

(\bar{x}) = mean

x_i = individual results

n = number of measurements

$$\text{Uncertainty } (\pm) = \frac{2[(\sum s_i)^2]^{1/2}}{(n)^{1/2}}$$

$\sum s_i$ = The summation of all significant estimated errors

(Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

The independent samples t-test was used to determine if there is agreement between the above assay methods at the 95% confidence interval. Both methods were compared and showed agreement within the stated uncertainties. This agreement is a confirmation of the accuracy of this CRM.

4.0 TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

• "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

• This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

Assay Method #1 **1003 ± 5 µg/mL**
 ICP Assay NIST SRM 3182 Lot Number: 990506

Assay Method #2 **994 ± 2 µg/mL**
 IC Assay NIST SRM Lot Number: in-house std

Reagent Documentation

Reagent: COD Vials
 Date Received: 28 May 08
 Date Expired: 10/2012
 Manufacturer: Environmental Express
 Storage Condition: room temp

Reagent #: 201861
 By: YUH
 Matrix: aq
 Amount: 3x100vials
 Lot #: 10661

Component	Comment	Standard	Concentration
	<u>EE# B1010</u>		

Comment:

Reagent: Nitrate as N Standard
 Date Received: 28 May 08
 Date Expired: 01 June 09
 Manufacturer: Inorganic Ventures
 Storage Condition: room temp

Reagent #: 201862
 By: YUH
 Matrix: aq
 Amount: 125mL
 Lot #: B2-NOX02055

Component	Comment	Standard	Concentration
	<u>IV# ICNNO31-1</u>		

Comment:

Reagent: ClO₃ Standard
 Date Received: 28 May 08
 Date Expired: 01 June 09
 Manufacturer: Inorganic Ventures
 Storage Condition: room temp

Reagent #: 201863
 By: YUH
 Matrix: aq
 Amount: 125mL
 Lot #: A2-CLOX01044

Component	Comment	Standard	Concentration
	<u>IV# ICCLO31-1</u>		

Comment:

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2.0 DESCRIPTION OF CRM 1000 µg/mL Chlorite in Water

Catalog Number: ICCLO21-1 and ICCLO21-5
 Lot Number: **B2-CLOX01046**
 Starting Material: NaClO₂
 Starting Material Purity (%): 80.000000
 Starting Material Lot No: E02F39
 Matrix: Water

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Concentration: 999 ± 2 µg/mL
Certified Density: 0.999 g/mL (measured at 22° C)

The following equations are used in the calculation of the certified value and the uncertainty

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n}$$

(\bar{x}) = mean
 x_i = individual results
 n = number of measurements

$$\text{Uncertainty } (\pm) = \frac{2[(\sum s_i)^2]^{1/2}}{(n)^{1/2}}$$

$\sum s_i$ = The summation of all significant estimated errors
 (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)
 · This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

4.1 Assay Method #1 999 ± 2 µg/mL
 Iodometric NIST SRM 136e Lot Number: 980702
Assay Method #2 1001 ± 5 µg/mL
 Gravimetric NIST SRM Lot Number: See Sec. 4.2

1.0 INORGANIC VENTURES is an ISO Guide 34:2000 registered Certified Reference Material (CRM) Manufacturer (Certificate #883-02). The certificate is designed and the data is determined in accordance with ISO Guide 31:2000 (Reference Materials-Contents of Certificates and Labels), ISO Guide 34:2000 "Quality System Guidelines for the Production of Reference Materials," and ISO Guide 35:1989 "Certification of Reference Materials - General and Statistical Principles."

2.0 DESCRIPTION OF CRM Ion Chromatography 1000 µg/mL Bromide in Water

Catalog Number: ICBR1-1 and ICBR1-5
 Lot Number: **B2-BR01069**
 Starting Material: Potassium Bromide
 Starting Material Purity (%): 99.9900
 Starting Material Lot No.: 09014BY
 Matrix: Water

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Concentration: 998 ± 3 µg/mL

Certified Density: 0.999 g/mL (measured at 22° C)

The following equations are used in the calculation of the certified value and the uncertainty

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n}$$

$$\text{Uncertainty } (\pm) = \frac{2[(\sum s_i)^2]^{1/2}}{(n)^{1/2}}$$

\bar{x} = mean
 x_i = individual results
 n = number of measurements
 $\sum s_i$ = The summation of all significant estimated errors (Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

4.0 TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

- "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)
- This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

Assay Method #1 **998 ± 3 µg/mL**
 IC Assay NIST SRM 3184 Lot Number: 020701

Assay Method #2 **1,004 ± 4 µg/mL**
 Volhard NIST SRM 999b Lot Number: 999b

Reagent Documentation

Reagent: ClO₂ Standard
 Date Received: 28 May 08
 Date Expired: 01 Jun 09
 Manufacturer: Inorganic Ventures
 Storage Condition: room temp

Reagent #: 201864
 By: YUH
 Matrix: ag
 Amount: 125mL
 Lot #: B2-CLOX01046

Component	Comment	Standard	Concentration
	IV# TCCL021-1		

Comment:

Reagent: BR Standard
 Date Received: 28 May 08
 Date Expired: 01 Jun 09
 Manufacturer: Inorganic Ventures
 Storage Condition: room temp

Reagent #: 201865
 By: YUH
 Matrix: ag
 Amount: 125mL
 Lot #: B2-BR01069

Component	Comment	Standard	Concentration
	IV# ICBRI-1		

Comment:

Reagent: Chloroform
 Date Received: 13 June 08
 Date Expired: June 2011
 Manufacturer: EMD
 Storage Condition: room temp

Reagent #: 201866
 By: YUH
 Matrix: ag
 Amount: 12x 4L
 Lot #: 48032

Component	Comment	Standard	Concentration
	EMD# CX1054-1		

Comment: