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Level IV Data Package

MWH Group 203332

Method: SW 846 9056 Chlorate

Sample No.:

2705020860
2705020862
2705020864

DBP QC Checklist

Analysis Date: 05-04-07 **Analyst:** Raja **QC'd by** M **Date** 9 May 07

Instrument: IC12

Batch #2

Calibration including QCS(Secondary Source)

✓ Correlation Coefficient of calibration curve for linear curve is 0.995 or better. (0.99 for quadratic)

✓ CLO2 ✓ CLO3 N/A 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) N/A BR: 90-110% (90-110ppb)

✓ CCB is analyzed before samples and after MCV and HCV

✓ MLBANK is analyzed before samples. ✓ CLO2/CLO3 N/A BR , if present, is < or = 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)

N/A *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

N/A BR: 90-110ppb for 100ppb

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

MS/MSD: Acceptance criteria are between 75%-125% recovery.

✓ CLO2: 75-125ppb for 100ppb spike

✓ CLO3: 75-125ppb for 100ppb spike

N/A BR: 37.5-62.5ppb 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) N/A BR (90-110ppb)

✓ HCV recovery is between 90-110%

✓ CLO2 (720-880ppb) ✓ CLO3 (720-880ppb) N/A BR (360-440ppb)

Samples

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

✓ All samples for CLO2are analyzed within 14 days of collection.

QIR

N/A QIR needed for failed QC

N/A QIR needed for samples analyzed outside of hold time

No. ,	Sample Name ,	Comment	Time	Dil.Fac.	Amount ppb ClO3 CD_1	
1,	autocal1,		05/01/07 10:54,	1.0,	n.a.	
2,	autocal2,	RAJA060520-3	05/01/07 11:19,	1.0,	10.1329	
3,	autocal3,	RAJA060520-4	05/01/07 11:45,	1.0,	19.4092	
4,	autocal4,	RAJA060520-5	05/01/07 12:10,	1.0,	100.8718	
5,	autocal5,	RAJA060520-6	05/01/07 12:36,	1.0,	199.5885	
6,	autocal6,	RAJA060520-7	05/01/07 13:01,	1.0,	399.981	
7,	autocal7,	RAJA060520-8	05/01/07 13:26,	1.0,	800.0166	
8,	WASH,		05/03/07 10:57,	1.0,	n.a.	
9,	MCV,		05/03/07 11:23,	1.0,	203.1106	102%
10,	CCB,		05/03/07 11:48,	1.0,	n.a.	
11,	MRLCHK,		05/03/07 12:13,	1.0,	11.1499	111% ✓
12,	MBLK,		05/03/07 12:39,	1.0,	n.a.	
13,	LCS1,		05/03/07 13:04,	1.0,	198.9166	99.5% ✓
14,	LCS2,		05/03/07 13:30,	1.0,	202.4428	101% ✓
15,	2705010113,	CLO2	05/03/07 13:55,	1.0,	n.a.	
16,	2705010113MS,		05/03/07 14:20,	1.0,	92.4719	92.5% ✓
17,	2705010113MSD,		05/03/07 14:46,	1.0,	94.1458	94.1% ✓
18,	2704270078_1/500-DN	BR	05/03/07 15:11,	500.0,	n.a.	
19,	2705010089_1/5000-D	CLO3	05/03/07 15:37,	5000.0,	n.a.	
20,	2704270164_1/5,	CLO3	05/03/07 16:02,	5.0,	201.2699 ✓	
21,	2705010137_1/10,	CLO39056	05/03/07 16:27,	10.0,	3537.747 ✓	
22,	2705010418-DNR,	BR	05/03/07 16:53,	1.0,	254.7534	
23,	2705010420-DNR,	BR	05/03/07 17:18,	1.0,	14.5761	
24,	2705020217-DNR,	BR	05/03/07 17:44,	1.0,	3282.976	
25,	2705020227-DNR,	BR	05/03/07 18:09,	1.0,	n.a.	
26,	2705020258-DNR,	BR	05/03/07 18:34,	1.0,	n.a.	
27,	MCV,		05/03/07 19:00,	1.0,	200.5498	100%
28,	CCB,		05/03/07 19:25,	1.0,	n.a.	
29,	2705020090,	CLO2/CLO3	05/03/07 19:51,	1.0,	56.9938 ✓	
30,	2705020137,	CLO2/CLO3	05/03/07 20:16,	1.0,	93.6337 ✓	
31,	2705020139,	CLO2/CLO3	05/03/07 20:41,	1.0,	26.4124 ✓	
32,	2705020139MS,		05/03/07 21:07,	1.0,	119.0162	92.6%
33,	2705020139MSD,		05/03/07 21:32,	1.0,	119.9611	93.5%
34,	2705020867,	CLO2/CLO3	05/03/07 21:58,	1.0,	33.6172 ✓	
35,	2705020868,	CLO2/CLO3	05/03/07 22:23,	1.0,	n.a. ✓	
36,	2705020869,	CLO2/CLO3	05/03/07 22:48,	1.0,	242.2078 ✓	
37,	2705020778,	CLO2	05/03/07 23:14,	1.0,	n.a.	
38,	2705010140_1/1000,	CLO39056	05/03/07 23:39,	1000.0,	67162.06 ✓	
39,	2705010702_1/50-DNR	CLO39056	05/04/07 00:05,	50.0,	n.a.	
40,	2705010703_1/100,	CLO39056	05/04/07 00:30,	100.0,	68728.66 ✓	
41,	HCV,		05/04/07 00:55,	1.0,	804.0787	101%
42,	CCB,		05/04/07 01:21,	1.0,	n.a.	
43,	MCV,		05/04/07 01:46,	1.0,	200.4611	100%
44,	CCB,		05/04/07 02:12,	1.0,	n.a.	
45,	MRLCHK,		05/04/07 02:37,	1.0,	9.915	99.2% ✓
46,	MBLK,		05/04/07 03:02,	1.0,	n.a.	
47,	LCS1,		05/04/07 03:28,	1.0,	203.9949	102% ✓
48,	LCS2,		05/04/07 03:53,	1.0,	195.5742	97.8% ✓

No. ,	Sample Name ,	Comment	Time	Dil.Fac.	Amount ppb ClO3 CD_1	
49,	2705020877,	CLO2/CLO3	05/04/07 04:19,	1.0,	16.8778	
50,	2705020877MS,		05/04/07 04:44,	1.0,	109.6442	92.8%
51,	2705020877MSD,		05/04/07 05:09,	1.0,	108.79	91.9%
52,	2705010709_1/10,	CLO39056	05/04/07 05:35,	10.0,	176.3369	
53,	2705010712_1/10-DNR	CLO39056	05/04/07 06:00,	10.0,	1184.061	
54,	2705010716_1/1000,	CLO39056	05/04/07 06:26,	1000.0,	111212.2	
55,	2705010717_1/10-DNR	CLO39056	05/04/07 06:51,	10.0,	74.9489	
56,	2705020800_1/100,	CLO39056	05/04/07 07:16,	100.0,	18993.47	
57,	2705020801_1/100,	CLO39056	05/04/07 07:42,	100.0,	18191.32	
58,	2705020813_1/10-DNR	CLO39056	05/04/07 08:07,	10.0,	181.0154	
59,	2705020860_1/10000,	CLO39056	05/04/07 08:33,	10000.0,	3435387	
60,	2705020862_1/1000,	CLO39056	05/04/07 08:58,	1000.0,	220145	
61,	MCV,		05/04/07 09:23,	1.0,	199.5306	99.8%
62,	CCB,		05/04/07 09:49,	1.0,	n.a.	
63,	2705020864_1/500,	CLO39056	05/04/07 10:14,	500.0,	19227.05	
64,	2705030182_1/10000,	CLO39056	05/04/07 10:40,	10000.0,	1384236	
65,	2705030202,	CLO2/CLO3	05/04/07 11:05,	1.0,	n.a.	
66,	2705030202MS,		05/04/07 11:30,	1.0,	95.0056	95.0%
67,	2705030202MSD,		05/04/07 11:56,	1.0,	91.2357	91.2%
68,	2705030087,	CLO2	05/04/07 12:21,	1.0,	128.5606	
69,	2705030088,	CLO2	05/04/07 12:46,	1.0,	129.831	
70,	2705030089,	CLO2	05/04/07 13:12,	1.0,	132.5726	
71,	2705030090,	CLO2	05/04/07 13:37,	1.0,	134.7359	
72,	2705030103,	CLO2	05/04/07 14:03,	1.0,	119.6479	
73,	2705030105,	CLO2	05/04/07 14:28,	1.0,	383.6674	
74,	2705030106,	CLO2	05/04/07 14:53,	1.0,	107.339	
75,	HCV,		05/04/07 15:23,	1.0,	791.923	99.0%
76,	CCB,		05/04/07 15:48,	1.0,	n.a.	

VB: NMS 5/10/07

Title:
Datasource: IC-SERVER_local
Location: IC12\2007\MAY
Timebase: IC12 Created: 5/2/2007 1:10:43 PM by raja
#Samples: 76 Last Update: 5/4/2007 12:07:15 PM by raja

No.	Name	Comment	Dil. Factor	Sample ID	Type	Program
1	autocal1		1.0000		Standard	IC12 test Program
2	autocal2	RAJA060520-3	1.0000		Standard	IC12 test Program
3	autocal3	RAJA060520-4	1.0000		Standard	IC12 test Program
4	autocal4	RAJA060520-5	1.0000		Standard	IC12 test Program
5	autocal5	RAJA060520-6	1.0000		Standard	IC12 test Program
6	autocal6	RAJA060520-7	1.0000		Standard	IC12 test Program
7	autocal7	RAJA060520-8	1.0000		Standard	IC12 test Program
8	WASH		1.0000		Unknown	IC12 test Program
9	MCV		1.0000		Unknown	IC12 test Program
10	CCB		1.0000		Unknown	IC12 test Program
11	MRLCHK		1.0000		Unknown	IC12 test Program
12	MBLK		1.0000		Unknown	IC12 test Program
13	LCS1		1.0000		Unknown	IC12 test Program
14	LCS2		1.0000		Unknown	IC12 test Program
15	2705010113	CLO2	1.0000		Unknown	IC12 test Program
16	2705010113MS		1.0000		Unknown	IC12 test Program
17	2705010113MSD		1.0000		Unknown	IC12 test Program
18	2704270078_1/500-DNR	BR	500.0000		Unknown	IC12 test Program
19	2705010089_1/5000-DNR	CLO3	5000.0000		Unknown	IC12 test Program
20	2704270164_1/5	CLO3	5.0000		Unknown	IC12 test Program
21	2705010137_1/10	CLO39056	10.0000		Unknown	IC12 test Program
22	2705010418-DNR	BR	1.0000		Unknown	IC12 test Program
23	2705010420-DNR	BR	1.0000		Unknown	IC12 test Program
24	2705020217-DNR	BR	1.0000		Unknown	IC12 test Program
25	2705020227-DNR	BR	1.0000		Unknown	IC12 test Program
26	2705020258-DNR	BR	1.0000		Unknown	IC12 test Program
27	MCV		1.0000		Unknown	IC12 test Program
28	CCB		1.0000		Unknown	IC12 test Program
29	2705020090	CLO2/CLO3	1.0000		Unknown	IC12 test Program
30	2705020137	CLO2/CLO3	1.0000		Unknown	IC12 test Program
31	2705020139	CLO2/CLO3	1.0000		Unknown	IC12 test Program
32	2705020139MS		1.0000		Unknown	IC12 test Program
33	2705020139MSD		1.0000		Unknown	IC12 test Program
34	2705020867	CLO2/CLO3	1.0000		Unknown	IC12 test Program
35	2705020868	CLO2/CLO3	1.0000		Unknown	IC12 test Program
36	2705020869	CLO2/CLO3	1.0000		Unknown	IC12 test Program
37	2705020778	CLO2	1.0000		Unknown	IC12 test Program
38	2705010140_1/1000	CLO39056	1000.0000		Unknown	IC12 test Program
39	2705010702_1/50-DNR	CLO39056	50.0000		Unknown	IC12 test Program
40	2705010703_1/100	CLO39056	100.0000		Unknown	IC12 test Program
41	HCV		1.0000		Unknown	IC12 test Program
42	CCB		1.0000		Unknown	IC12 test Program

Title:
Datasource: IC-SERVER_local
Location: IC12\2007\MAY
Timebase: IC12
#Samples: 76
Created: 5/2/2007 1:10:43 PM by raja
Last Update: 5/4/2007 12:07:15 PM by raja

No.	Name	Method	Status	Inj. Date/Time	*Analyst
1	autocal1	DBP-Method	Finished	5/1/2007 10:54:27 AM	raja
2	autocal2	DBP-Method	Finished	5/1/2007 11:19:51 AM	raja
3	autocal3	DBP-Method	Finished	5/1/2007 11:45:15 AM	raja
4	autocal4	DBP-Method	Finished	5/1/2007 12:10:39 PM	raja
5	autocal5	DBP-Method	Finished	5/1/2007 12:36:03 PM	raja
6	autocal6	DBP-Method	Finished	5/1/2007 1:01:26 PM	raja
7	autocal7	DBP-Method	Finished	5/1/2007 1:26:50 PM	raja
8	WASH	DBP-Method	Finished	5/3/2007 10:57:48 AM	raja
9	MCV	DBP-Method	Finished	5/3/2007 11:23:11 AM	raja
10	CCB	DBP-Method	Finished	5/3/2007 11:48:35 AM	raja
11	MRLCHK	DBP-Method	Finished	5/3/2007 12:13:59 PM	raja
12	MBLK	DBP-Method	Finished	5/3/2007 12:39:23 PM	raja
13	LCS1	DBP-Method	Finished	5/3/2007 1:04:47 PM	raja
14	LCS2	DBP-Method	Finished	5/3/2007 1:30:10 PM	raja
15	2705010113	DBP-Method	Finished	5/3/2007 1:55:34 PM	raja
16	2705010113MS	DBP-Method	Finished	5/3/2007 2:20:58 PM	raja
17	2705010113MSD	DBP-Method	Finished	5/3/2007 2:46:22 PM	raja
18	2704270078_1/500-DNR	DBP-Method	Finished	5/3/2007 3:11:46 PM	raja
19	2705010089_1/5000-DNR	DBP-Method	Finished	5/3/2007 3:37:09 PM	raja
20	2704270164_1/5	DBP-Method	Finished	5/3/2007 4:02:33 PM	raja
21	2705010137_1/10	DBP-Method	Finished	5/3/2007 4:27:57 PM	raja
22	2705010418-DNR	DBP-Method	Finished	5/3/2007 4:53:20 PM	raja
23	2705010420-DNR	DBP-Method	Finished	5/3/2007 5:18:44 PM	raja
24	2705020217-DNR	DBP-Method	Finished	5/3/2007 5:44:08 PM	raja
25	2705020227-DNR	DBP-Method	Finished	5/3/2007 6:09:32 PM	raja
26	2705020258-DNR	DBP-Method	Finished	5/3/2007 6:34:56 PM	raja
27	MCV	DBP-Method	Finished	5/3/2007 7:00:20 PM	raja
28	CCB	DBP-Method	Finished	5/3/2007 7:25:44 PM	raja
29	2705020090	DBP-Method	Finished	5/3/2007 7:51:08 PM	raja
30	2705020137	DBP-Method	Finished	5/3/2007 8:16:32 PM	raja
31	2705020139	DBP-Method	Finished	5/3/2007 8:41:56 PM	raja
32	2705020139MS	DBP-Method	Finished	5/3/2007 9:07:20 PM	raja
33	2705020139MSD	DBP-Method	Finished	5/3/2007 9:32:44 PM	raja
34	2705020867	DBP-Method	Finished	5/3/2007 9:58:08 PM	raja
35	2705020868	DBP-Method	Finished	5/3/2007 10:23:32 PM	raja
36	2705020869	DBP-Method	Finished	5/3/2007 10:48:55 PM	raja
37	2705020778	DBP-Method	Finished	5/3/2007 11:14:19 PM	raja
38	2705010140_1/1000	DBP-Method	Finished	5/3/2007 11:39:43 PM	raja
39	2705010702_1/50-DNR	DBP-Method	Finished	5/4/2007 12:05:07 AM	raja
40	2705010703_1/100	DBP-Method	Finished	5/4/2007 12:30:31 AM	raja
41	HCV	DBP-Method	Finished	5/4/2007 12:55:55 AM	raja
42	CCB	DBP-Method	Finished	5/4/2007 1:21:19 AM	raja

Title:
Datasource: IC-SERVER_local
Location: IC12\2007\MAY
Timebase: IC12 Created: 5/2/2007 1:10:43 PM by raja
#Samples: 76 Last Update: 5/4/2007 12:07:15 PM by raja

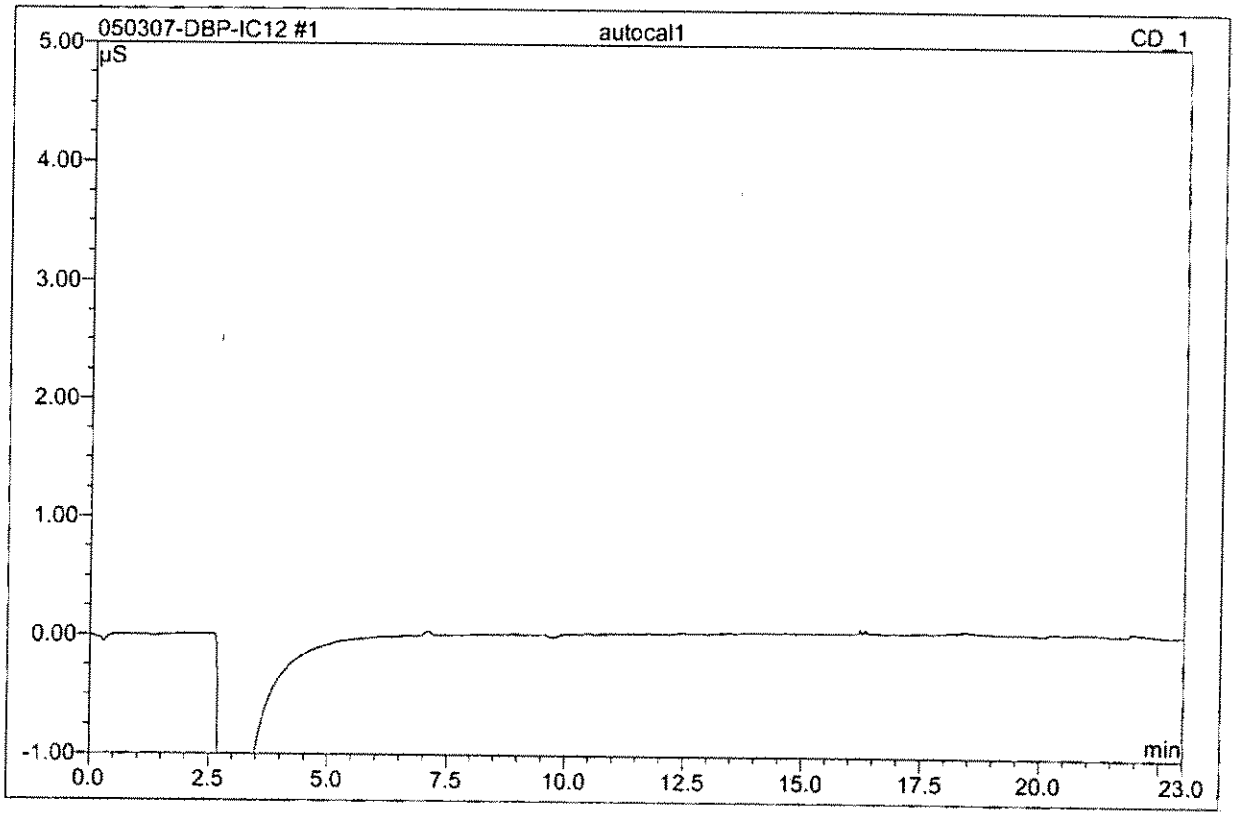
No.	Name	Comment	Dil. Factor	Sample ID	Type	Program
43	MCV		1.0000		Unknown	IC12 test Program
44	CCB		1.0000		Unknown	IC12 test Program
45	MRLCHK		1.0000		Unknown	IC12 test Program
46	MBLK		1.0000		Unknown	IC12 test Program
47	LCS1		1.0000		Unknown	IC12 test Program
48	LCS2		1.0000		Unknown	IC12 test Program
49	2705020877	CLO2/CLO3	1.0000		Unknown	IC12 test Program
50	2705020877MS		1.0000		Unknown	IC12 test Program
51	2705020877MSD		1.0000		Unknown	IC12 test Program
52	2705010709_1/10	CLO39056	10.0000		Unknown	IC12 test Program
53	2705010712_1/10-DNR	CLO39056	10.0000		Unknown	IC12 test Program
54	2705010716_1/1000	CLO39056	1000.0000		Unknown	IC12 test Program
55	2705010717_1/10-DNR	CLO39056	10.0000		Unknown	IC12 test Program
56	2705020800_1/100	CLO39056	100.0000		Unknown	IC12 test Program
57	2705020801_1/100	CLO39056	100.0000		Unknown	IC12 test Program
58	2705020813_1/10-DNR	CLO39056	10.0000		Unknown	IC12 test Program
59	2705020860_1/10000	CLO39056	10000.0000		Unknown	IC12 test Program
60	2705020862_1/1000	CLO39056	1000.0000		Unknown	IC12 test Program
61	MCV		1.0000		Unknown	IC12 test Program
62	CCB		1.0000		Unknown	IC12 test Program
63	2705020864_1/500	CLO39056	500.0000		Unknown	IC12 test Program
64	2705030182_1/10000	CLO39056	10000.0000		Unknown	IC12 test Program
65	2705030202	CLO2/CLO3	1.0000		Unknown	IC12 test Program
66	2705030202MS		1.0000		Unknown	IC12 test Program
67	2705030202MSD		1.0000		Unknown	IC12 test Program
68	2705030087	CLO2	1.0000		Unknown	IC12 test Program
69	2705030088	CLO2	1.0000		Unknown	IC12 test Program
70	2705030089	CLO2	1.0000		Unknown	IC12 test Program
71	2705030090	CLO2	1.0000		Unknown	IC12 test Program
72	2705030103	CLO2	1.0000		Unknown	IC12 test Program
73	2705030105	CLO2	1.0000		Unknown	IC12 test Program
74	2705030106	CLO2	1.0000		Unknown	IC12 test Program
75	HCV		1.0000		Unknown	IC12 test Program
76	CCB		1.0000		Unknown	IC12 test Program

Title:
Datasource: IC-SERVER_local
Location: IC12\2007\MAY
Timebase: IC12
#Samples: 76
Created: 5/2/2007 1:10:43 PM by raja
Last Update: 5/4/2007 12:07:15 PM by raja

No.	Name	Method	Status	Inj. Date/Time	*Analyst
43	MCV	DBP-Method	Finished	5/4/2007 1:46:43 AM	raja
44	CCB	DBP-Method	Finished	5/4/2007 2:12:07 AM	raja
45	MRLCHK	DBP-Method	Finished	5/4/2007 2:37:31 AM	raja
46	MBLK	DBP-Method	Finished	5/4/2007 3:02:55 AM	raja
47	LCS1	DBP-Method	Finished	5/4/2007 3:28:19 AM	raja
48	LCS2	DBP-Method	Finished	5/4/2007 3:53:42 AM	raja
49	2705020877	DBP-Method	Finished	5/4/2007 4:19:06 AM	raja
50	2705020877MS	DBP-Method	Finished	5/4/2007 4:44:30 AM	raja
51	2705020877MSD	DBP-Method	Finished	5/4/2007 5:09:54 AM	raja
52	2705010709_1/10	DBP-Method	Finished	5/4/2007 5:35:18 AM	raja
53	2705010712_1/10-DNR	DBP-Method	Finished	5/4/2007 6:00:42 AM	raja
54	2705010716_1/1000	DBP-Method	Finished	5/4/2007 6:26:06 AM	raja
55	2705010717_1/10-DNR	DBP-Method	Finished	5/4/2007 6:51:30 AM	raja
56	2705020800_1/100	DBP-Method	Finished	5/4/2007 7:16:53 AM	raja
57	2705020801_1/100	DBP-Method	Finished	5/4/2007 7:42:17 AM	raja
58	2705020813_1/10-DNR	DBP-Method	Finished	5/4/2007 8:07:40 AM	raja
59	2705020860_1/10000	DBP-Method	Finished	5/4/2007 8:33:03 AM	raja
60	2705020862_1/1000	DBP-Method	Finished	5/4/2007 8:58:27 AM	raja
61	MCV	DBP-Method	Finished	5/4/2007 9:23:50 AM	raja
62	CCB	DBP-Method	Finished	5/4/2007 9:49:14 AM	raja
63	2705020864_1/500	DBP-Method	Finished	5/4/2007 10:14:37 AM	raja
64	2705030182_1/10000	DBP-Method	Finished	5/4/2007 10:40:01 AM	raja
65	2705030202	DBP-Method	Finished	5/4/2007 11:05:25 AM	raja
66	2705030202MS	DBP-Method	Finished	5/4/2007 11:30:48 AM	raja
67	2705030202MSD	DBP-Method	Finished	5/4/2007 11:56:12 AM	raja
68	2705030087	DBP-Method	Finished	5/4/2007 12:21:35 PM	raja
69	2705030088	DBP-Method	Finished	5/4/2007 12:46:59 PM	raja
70	2705030089	DBP-Method	Finished	5/4/2007 1:12:23 PM	raja
71	2705030090	DBP-Method	Finished	5/4/2007 1:37:46 PM	raja
72	2705030103	DBP-Method	Finished	5/4/2007 2:03:09 PM	raja
73	2705030105	DBP-Method	Finished	5/4/2007 2:28:33 PM	raja
74	2705030106	DBP-Method	Finished	5/4/2007 2:53:56 PM	raja
75	HCV	DBP-Method	Finished	5/4/2007 3:23:03 PM	raja
76	CCB	DBP-Method	Finished	5/4/2007 3:48:27 PM	raja

1 autocal1

Sample Name:	**autocal1**	*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:	**5/1/2007 10:54**	*Sample Weight:*	**1.0000**
Run Time (min):	**23.00**	*Sample Amount:*	**1.0000**

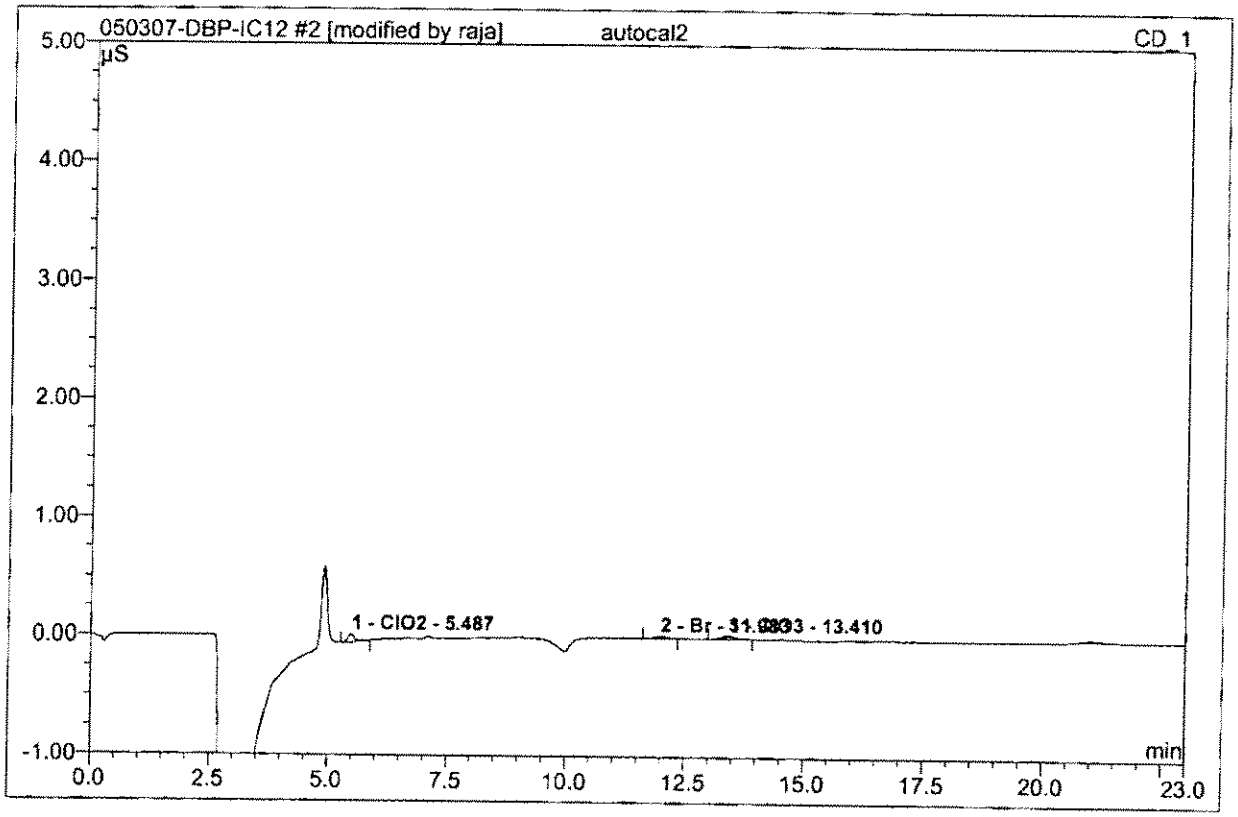


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount ppb	Type
Total:			0.000	0.000	0.00	0.000	

2 autocal2

RAJA060520-3

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:	**5/1/2007 11:19**	*Sample Weight:*	**1.0000**
Run Time (min):	**23.00**	*Sample Amount:*	**1.0000**

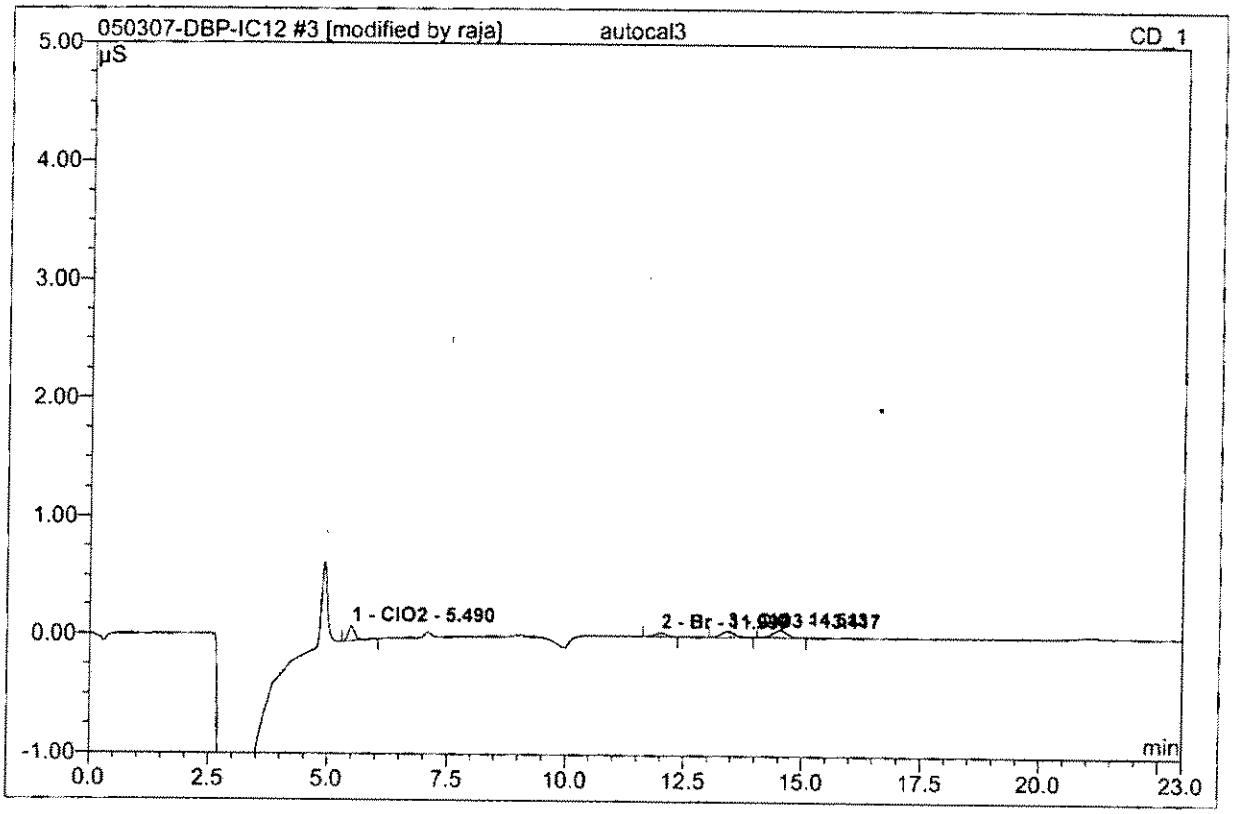


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount ppb	Type
1	5.49	ClO2	0.064	0.010	42.54	9.926	BMB
2	11.98	Br	0.016	0.005	20.78	5.721	BMB*
3	13.41	ClO3	0.025	0.009	36.68	10.133	BMB*
Total:			0.105	0.024	100.00	25.780	

3 autocal3

RAJA060520-4

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:	**5/1/2007 11:45**	*Sample Weight:*	**1.0000**
Run Time (min):	**23.00**	*Sample Amount:*	**1.0000**

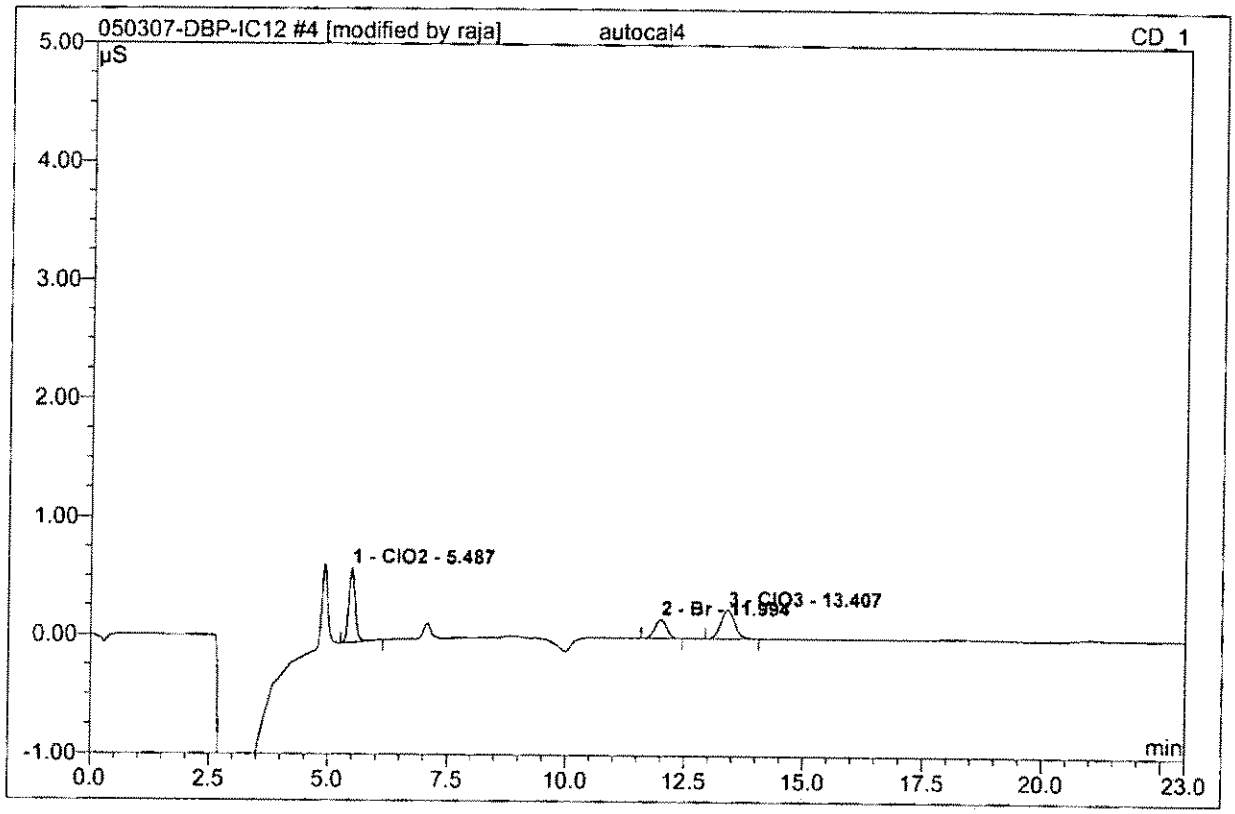


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount ppb	Type
1	5.49	ClO2	0.126	0.020	29.66	20.367	BMB
2	12.00	Br	0.031	0.009	13.08	9.977	BMB*
3	13.42	ClO3	0.048	0.017	24.43	19.409	BMB*
4	14.51	n.a.	0.062	0.022	32.84	n.a.	BMB*
Total:			0.267	0.068	100.00	49.753	

4 autocal4

RAJA060520-5

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:	**5/1/2007 12:10**	*Sample Weight:*	**1.0000**
Run Time (min):	**23.00**	*Sample Amount:*	**1.0000**

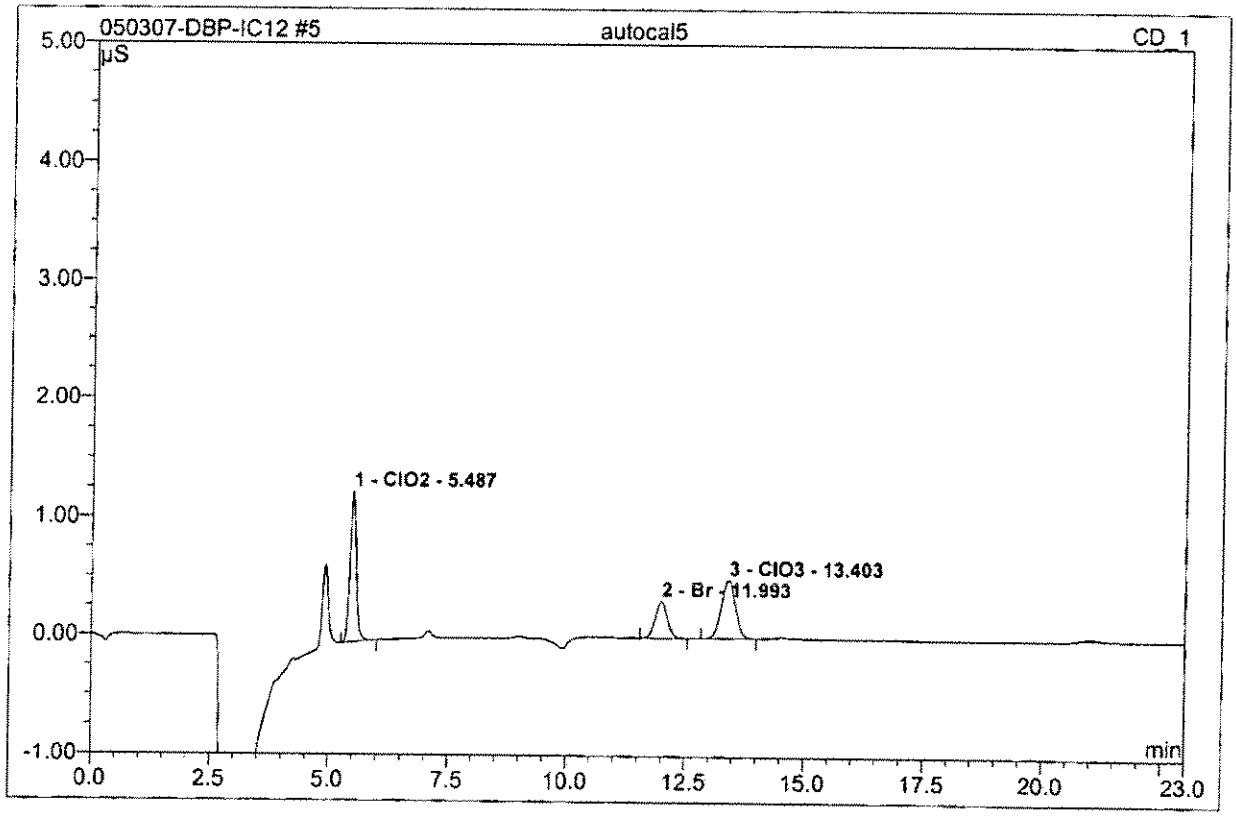


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount ppb	Type
1	5.49	ClO2	0.628	0.097	42.52	99.774	BMB
2	11.99	Br	0.155	0.045	19.79	49.048	BMB*
3	13.41	ClO3	0.245	0.086	37.69	100.872	BMB*
Total:			1.027	0.228	100.00	249.694	

5 autocal5

RAJA060520-6

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:	**5/1/2007 12:36**	*Sample Weight:*	**1.0000**
Run Time (min):	**23.00**	*Sample Amount:*	**1.0000**

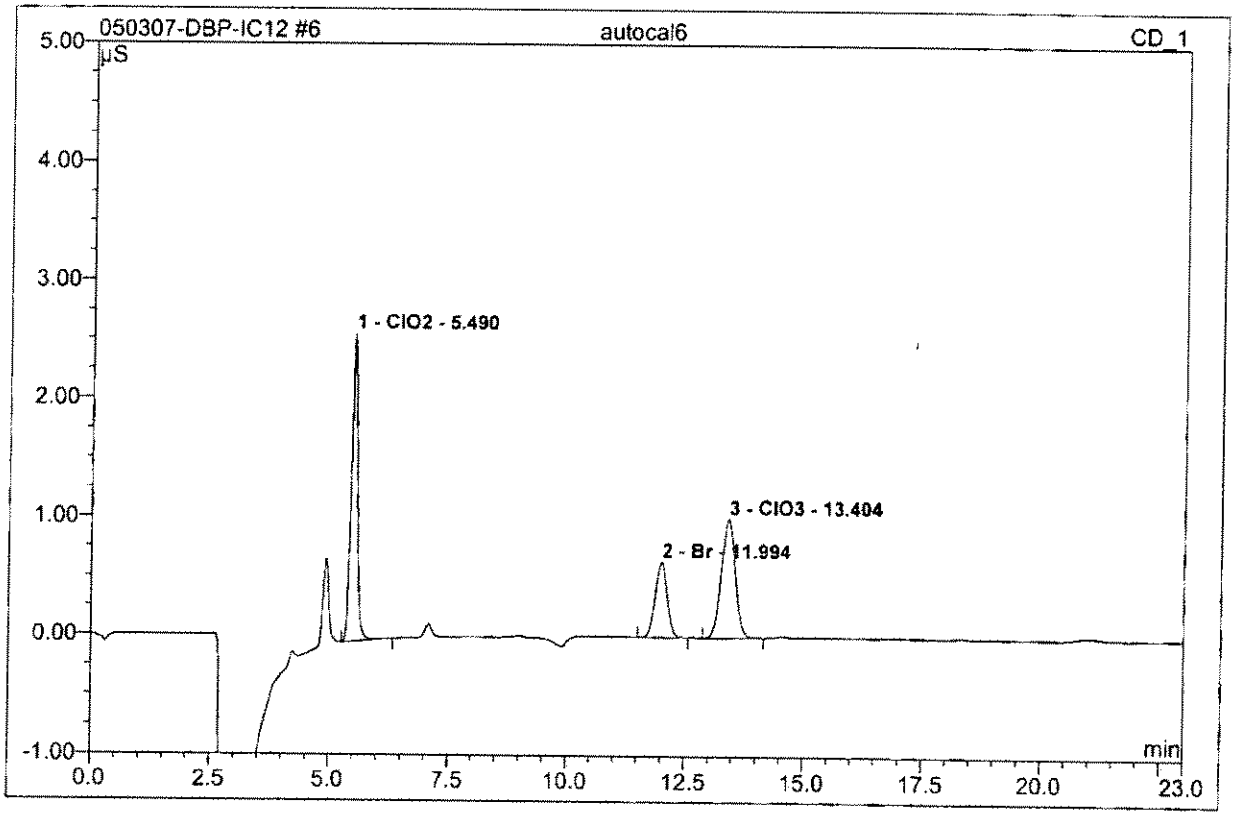


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount ppb	Type
1	5.49	ClO2	1.273	0.195	42.58	199.693	BMB
2	11.99	Br	0.314	0.092	20.19	99.881	BMB
3	13.40	ClO3	0.495	0.171	37.23	199.588	BMB
Total:			2.082	0.458	100.00	499.163	

6 autocal6

RAJA060520-7

Sample Name:	**autocal6**	*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:	**5/1/2007 13:01**	*Sample Weight:*	**1.0000**
Run Time (min):	**23.00**	*Sample Amount:*	**1.0000**

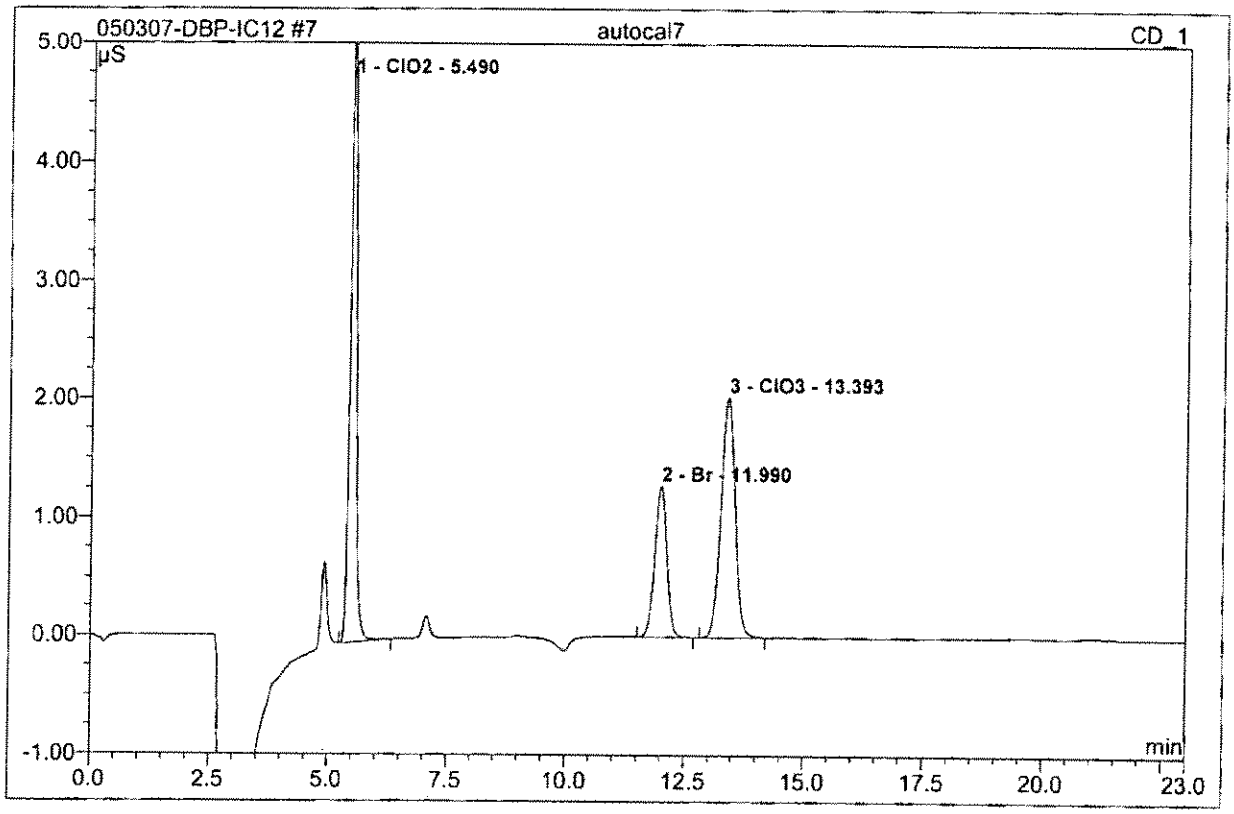


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount ppb	Type
1	5.49	ClO2	2.606	0.397	42.77	400.286	BMB
2	11.99	Br	0.634	0.187	20.13	200.466	BMB
3	13.40	ClO3	1.002	0.345	37.10	399.981	BMB
Total:			4.242	0.929	100.00	1000.733	

7 autocal7

RAJA060520-8

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:	**5/1/2007 13:26**	*Sample Weight:*	**1.0000**
Run Time (min):	**23.00**	*Sample Amount:*	**1.0000**

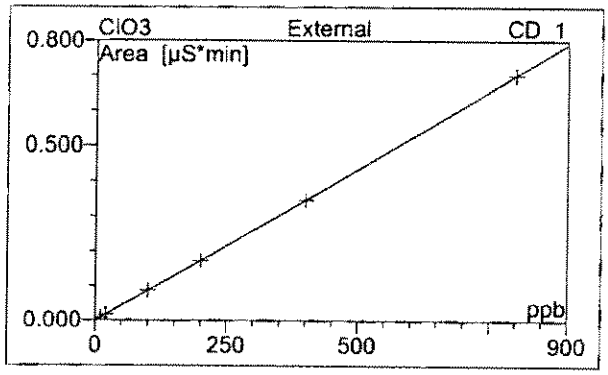


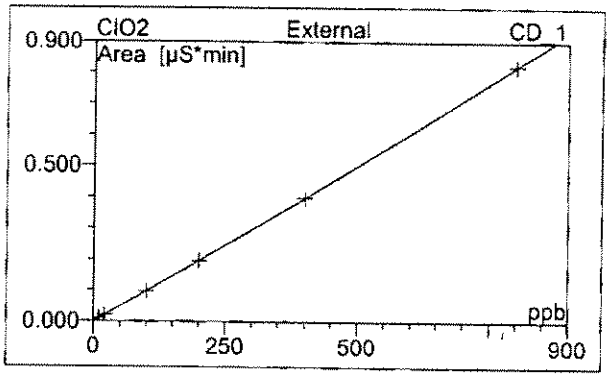
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount ppb	Type
1	5.49	ClO2	5.423	0.820	43.22	799.953	BMB
2	11.99	Br	1.278	0.377	19.86	399.907	BMB
3	13.39	ClO3	2.032	0.701	36.92	800.017	BMB
Total:			8.733	1.898	100.00	1999.877	

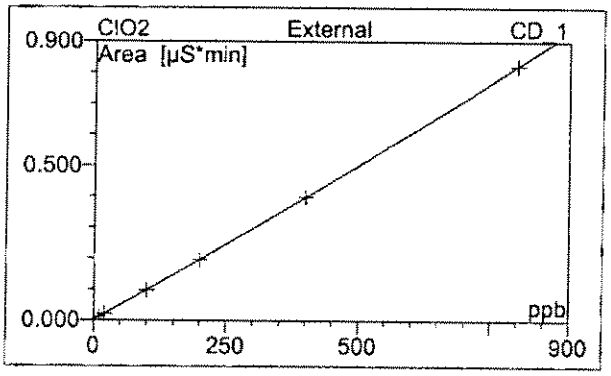
7 autocal7

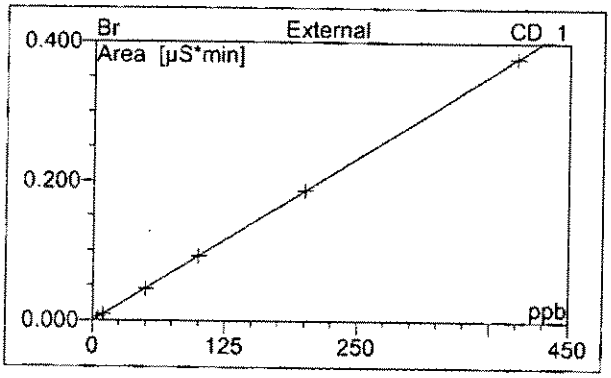
RAJA060520-8

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:	**5/1/2007 13:26**	*Sample Weight:*	**1.0000**
Run Time (min):	**23.00**	*Sample Amount:*	**1.0000**





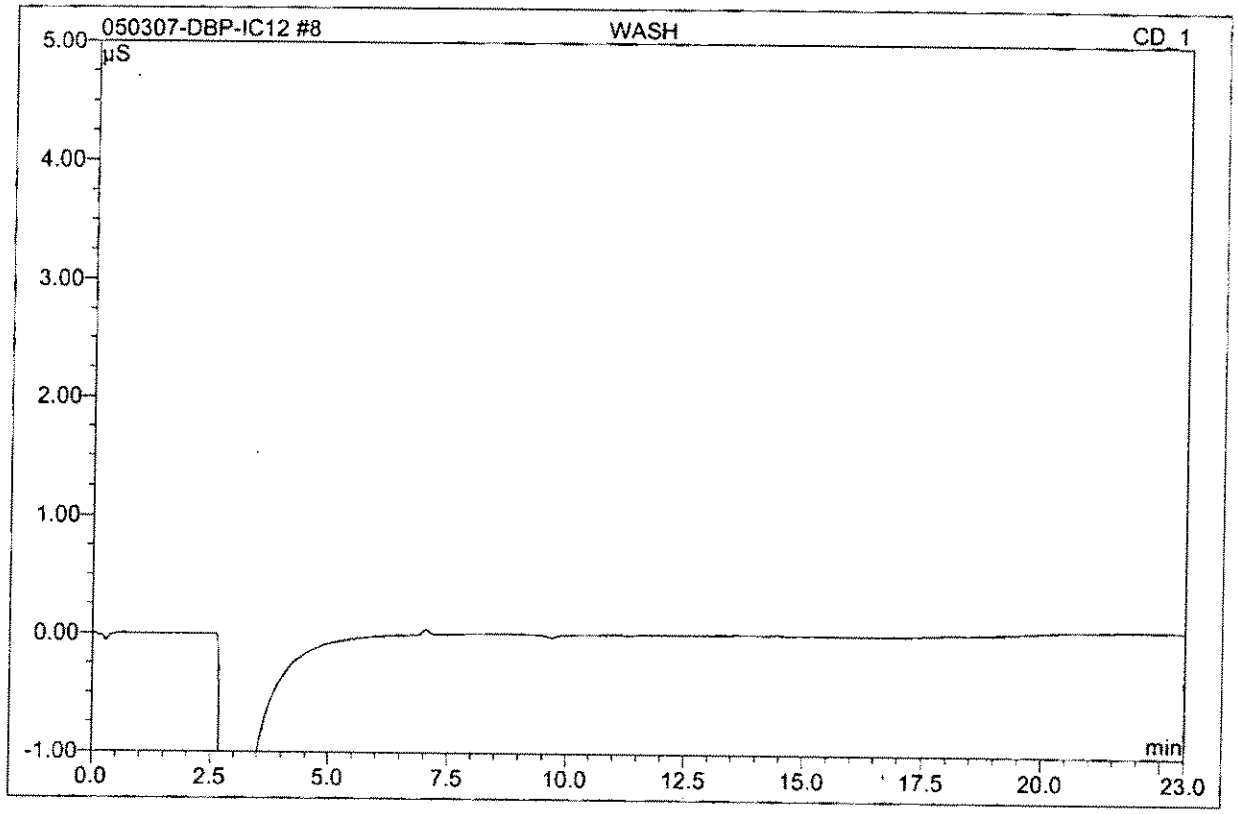




No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	Offset	Slope	Curve
1	5.49	ClO2	QOff	6	99.9837	0.0005	0.0010	0.0000
2	11.99	Br	QOff	6	99.9979	-0.0004	0.0009	0.0000
3	13.39	ClO3	QOff	6	99.9959	0.0000	0.0008	0.0000
Average:					99.9925	0.0000	0.0009	0.0000

8 WASH

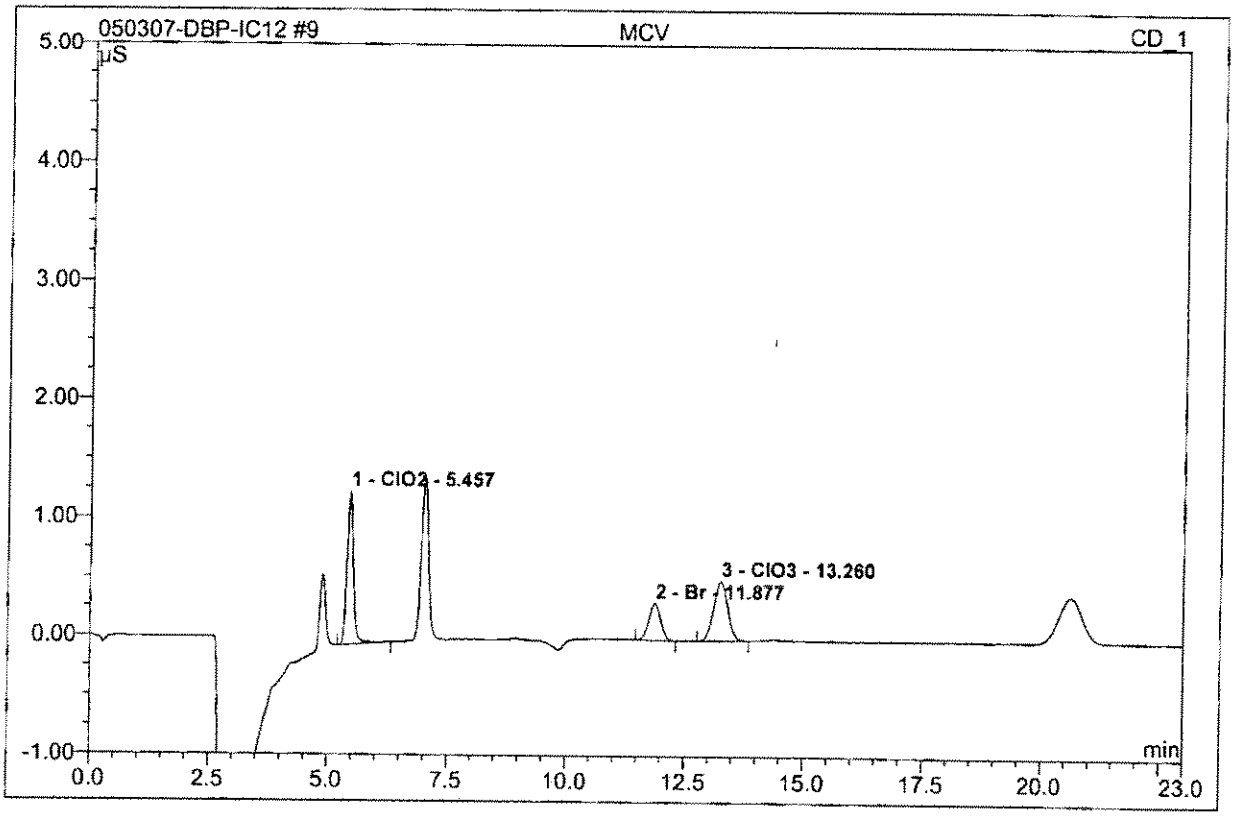
Sample Name:	**WASH**	*Injection Volume:*	**1000.0**
Vial Number:	**335**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**IC12 test Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**DBP-Method**	*Dilution Factor:*	**1.0000**
Recording Time:	**5/3/2007 10:57**	*Sample Weight:*	**1.0000**
Run Time (min):	**23.00**	*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	

9 MCV

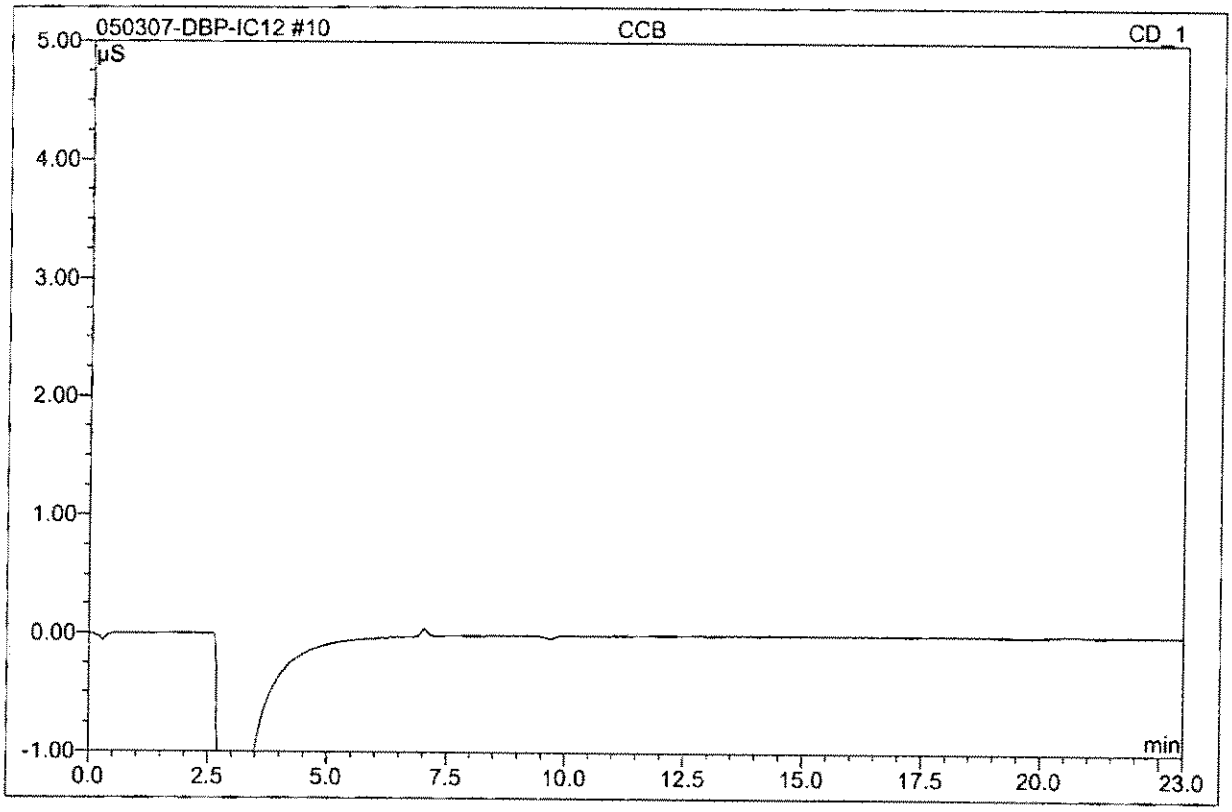
Sample Name:	**MCV**	*Injection Volume:*	**1000.0**
Vial Number:	**336**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**IC12 test Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**DBP-Method**	*Dilution Factor:*	**1.0000**
Recording Time:	**5/3/2007 11:23**	*Sample Weight:*	**1.0000**
Run Time (min):	**23.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount ppb	Type
1	5.46	ClO2	1.300	0.204	43.31	208.386	BMB
2	11.88	Br	0.319	0.093	19.77	100.389	BMB
3	13.26	ClO3	0.508	0.174	36.92	203.111	BMB
Total:			2.127	0.470	100.00	511.886	

10 CCB

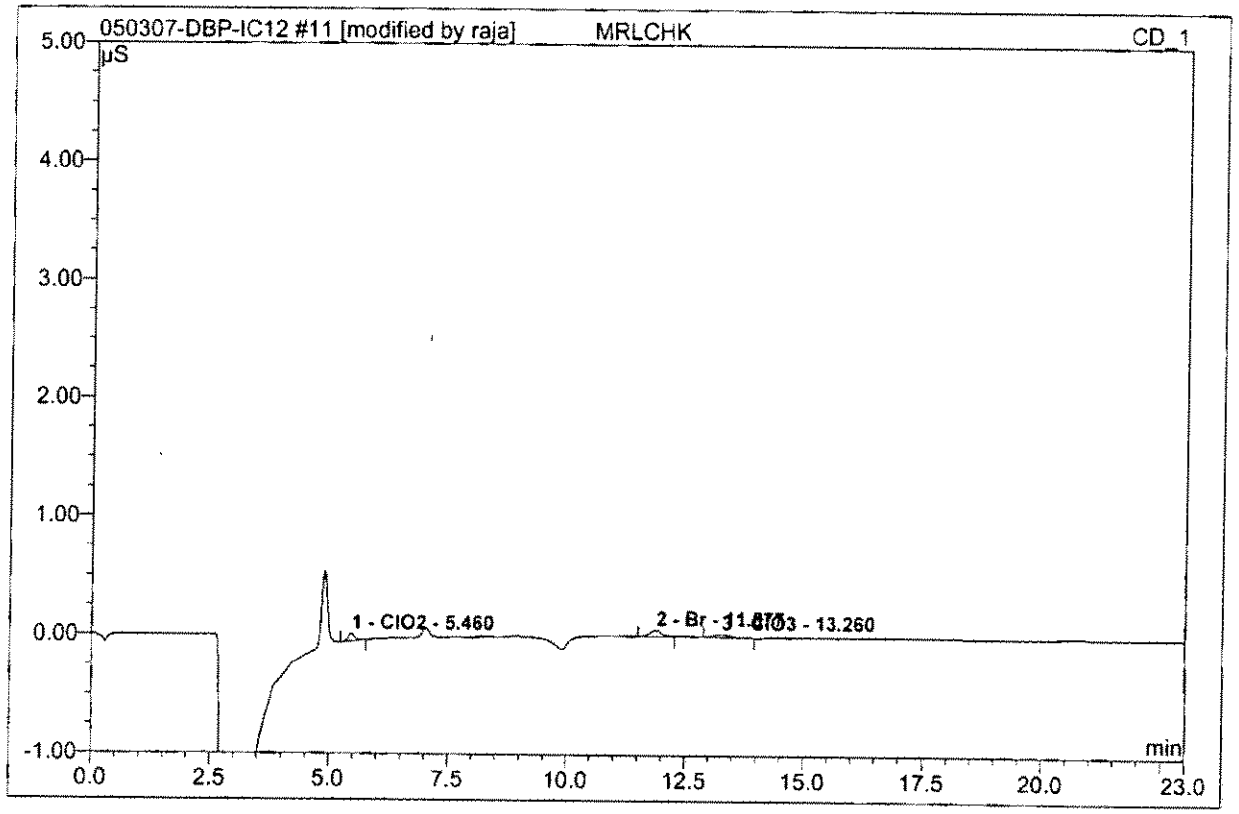
Sample Name:	**CCB**	*Injection Volume:*	**1000.0**
Vial Number:	**336**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**IC12 test Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**DBP-Method**	*Dilution Factor:*	**1.0000**
Recording Time:	**5/3/2007 11:48**	*Sample Weight:*	**1.0000**
Run Time (min):	**23.00**	*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	

11 MRLCHK

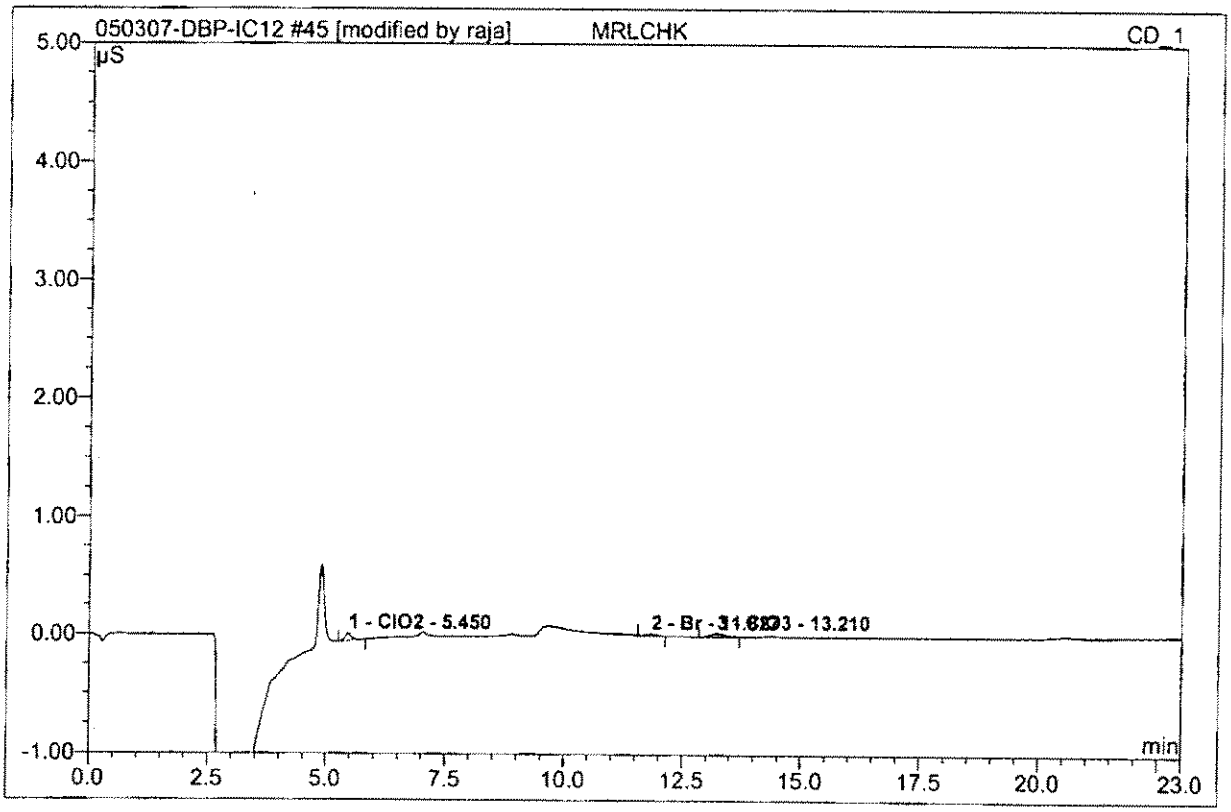
Sample Name:	**MRLCHK**	*Injection Volume:*	**1000.0**
Vial Number:	**336**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**IC12 test Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**DBP-Method**	*Dilution Factor:*	**1.0000**
Recording Time:	**5/3/2007 12:13**	*Sample Weight:*	**1.0000**
Run Time (min):	**23.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount ppb	Type
1	5.46	ClO2	0.065	0.010	29.08	10.130	BMB*
2	11.88	Br	0.053	0.015	43.87	17.065	BMB
3	13.26	ClO3	0.025	0.009	27.05	11.150	BMB
Total:			0.144	0.035	100.00	38.344	

45 MRLCHK

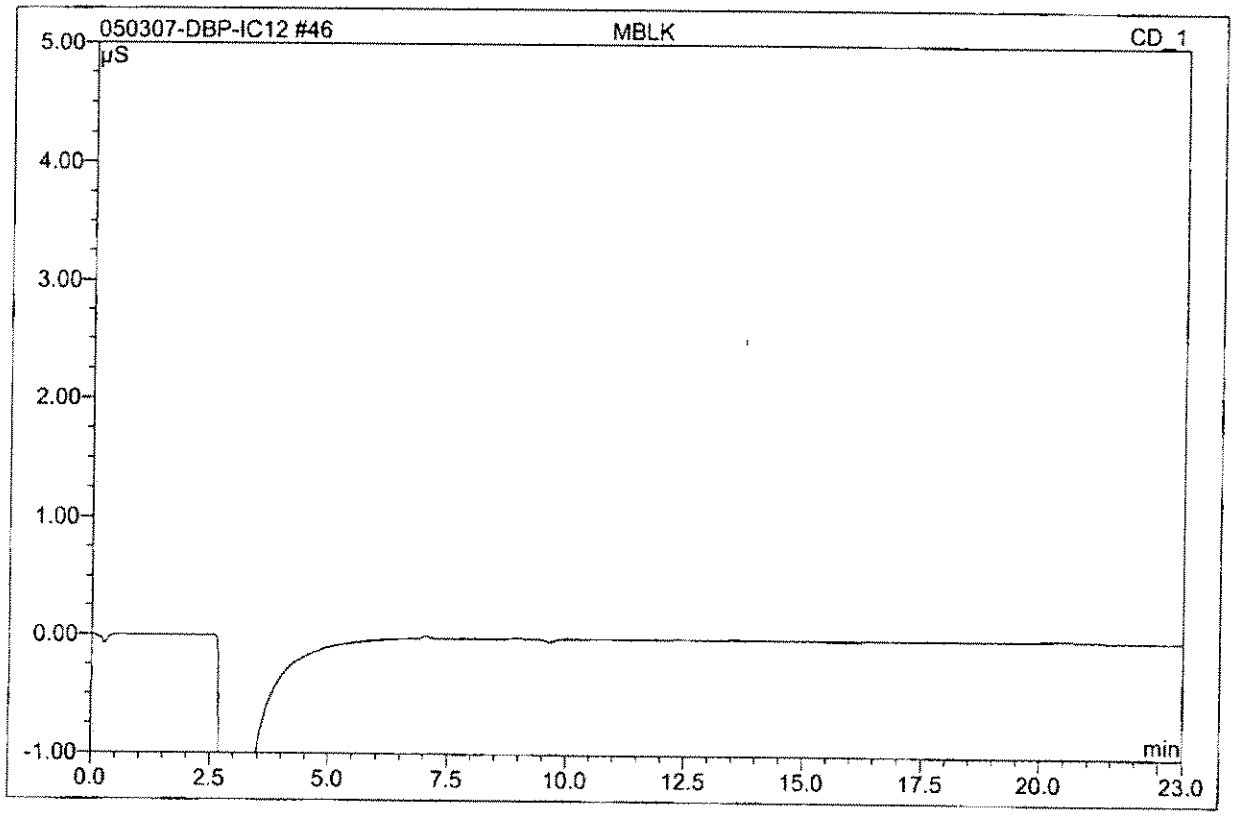
Sample Name:	**MRLCHK**	*Injection Volume:*	**1000.0**
Vial Number:	**741**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**IC12 test Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**DBP-Method**	*Dilution Factor:*	**1.0000**
Recording Time:	**5/4/2007 2:37**	*Sample Weight:*	**1.0000**
Run Time (min):	**23.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount ppb	Type
1	5.45	ClO2	0.064	0.010	44.72	9.670	BMB
2	11.83	Br	0.014	0.004	16.61	4.356	BMB*
3	13.21	ClO3	0.025	0.008	38.67	9.915	BMB
Total:			0.102	0.022	100.00	23.941	

46 MBLK

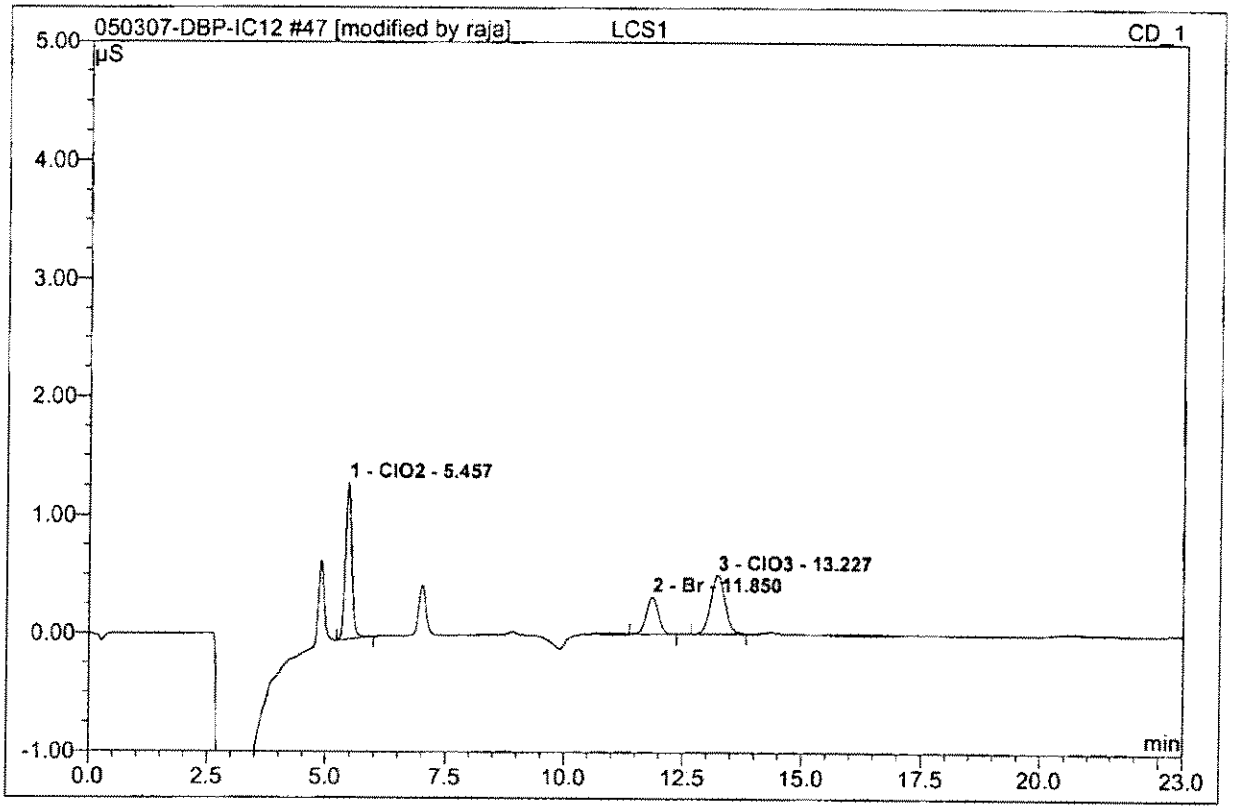
Sample Name:	**MBLK**	*Injection Volume:*	**1000.0**
Vial Number:	**742**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**IC12 test Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**DBP-Method**	*Dilution Factor:*	**1.0000**
Recording Time:	**5/4/2007 3:02**	*Sample Weight:*	**1.0000**
Run Time (min):	**23.00**	*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	

47 LCS1

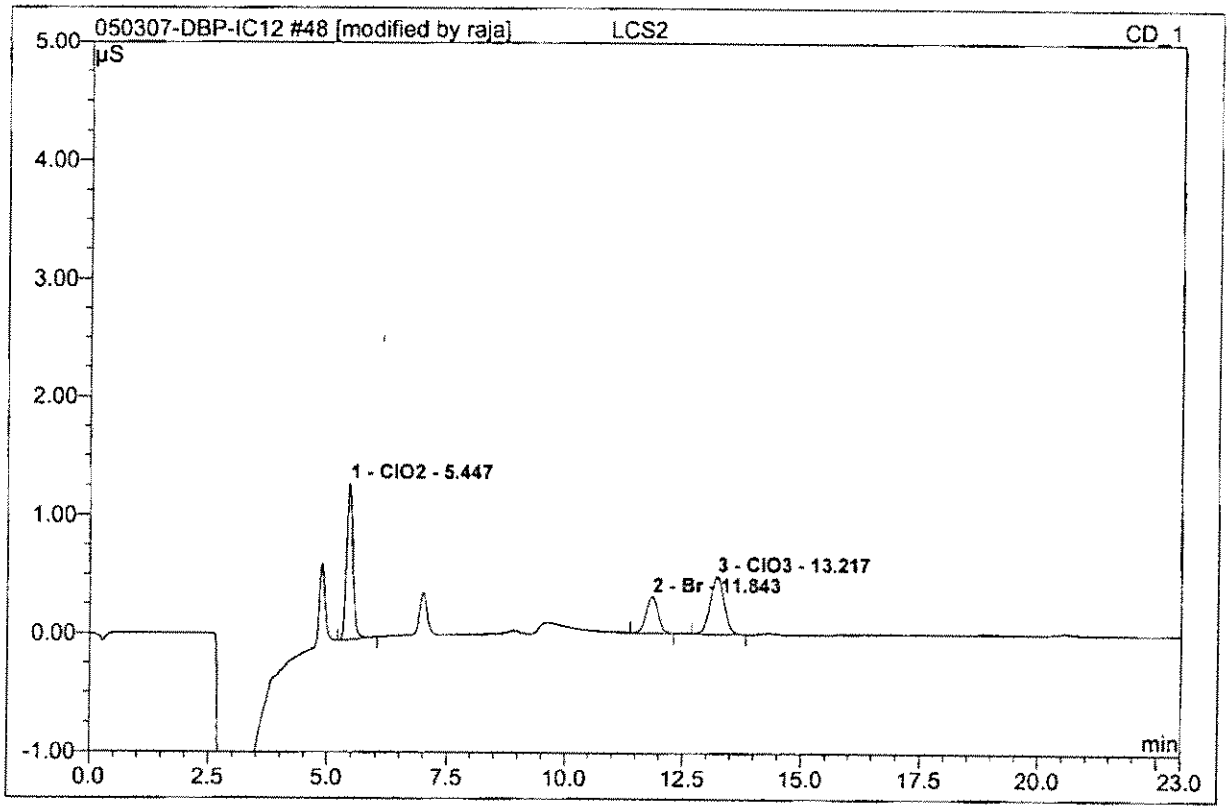
Sample Name:	**LCS1**	*Injection Volume:*	**1000.0**
Vial Number:	**743**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**IC12 test Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**DBP-Method**	*Dilution Factor:*	**1.0000**
Recording Time:	**5/4/2007 3:28**	*Sample Weight:*	**1.0000**
Run Time (min):	**23.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount ppb	Type
1	5.46	ClO2	1.324	0.204	43.32	208.974	BMB*
2	11.85	Br	0.318	0.093	19.70	100.332	BMB
3	13.23	ClO3	0.501	0.174	36.98	203.995	BMB*
Total:			2.143	0.472	100.00	513.301	

48 LCS2

Sample Name:	**LCS2**	*Injection Volume:*	**1000.0**
Vial Number:	**744**	*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:	**5/4/2007 3:53**	*Sample Weight:*	**1.0000**
Run Time (min):	**23.00**	*Sample Amount:*	**1.0000**

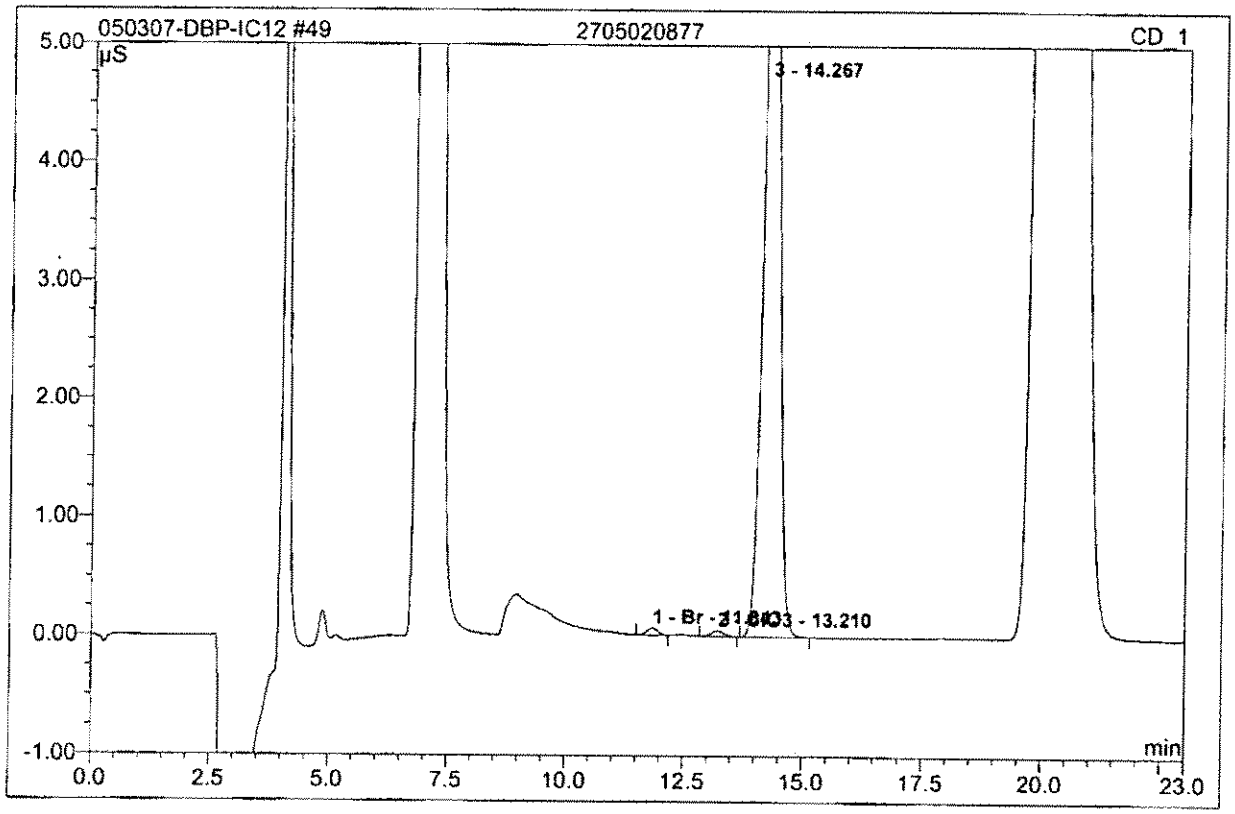


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount ppb	Type
1	5.45	ClO2	1.316	0.200	43.77	205.101	BMB*
2	11.84	Br	0.310	0.090	19.72	97.552	BMB
3	13.22	ClO3	0.488	0.167	36.50	195.574	BMB
Total:			2.113	0.458	100.00	498.228	

49 2705020877

CLO2/CLO3

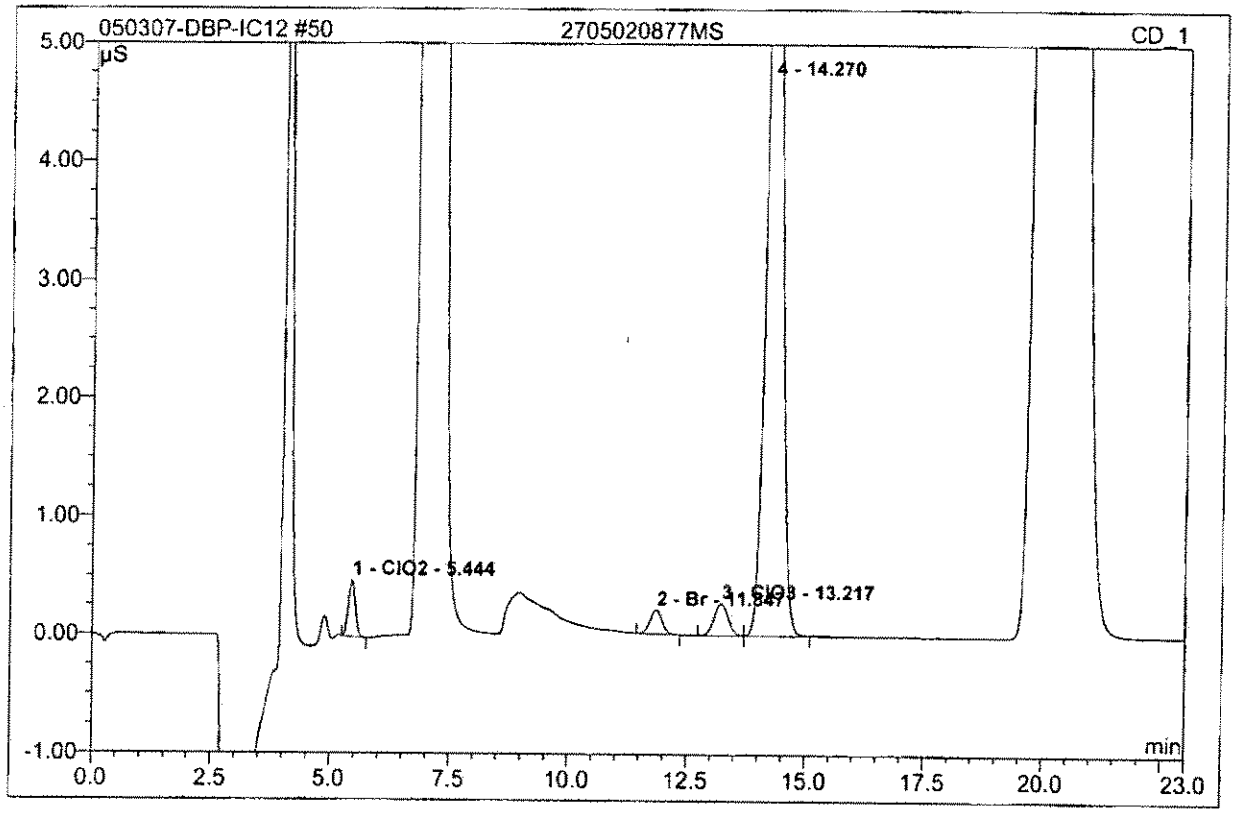
Sample Name:	**2705020877**	*Injection Volume:*	**1000.0**
Vial Number:	**745**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**IC12 test Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**DBP-Method**	*Dilution Factor:*	**1.0000**
Recording Time:	**5/4/2007 4:19**	*Sample Weight:*	**1.0000**
Run Time (min):	**23.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount ppb	Type
1	11.84	Br	0.056	0.016	0.56	17.261	BMB
2	13.21	ClO3	0.045	0.014	0.51	16.878	BMB
3	14.27	n.a.	7.819	2.764	98.93	n.a.	BMB
Total:			7.920	2.794	100.00	34.139	

50 2705020877MS

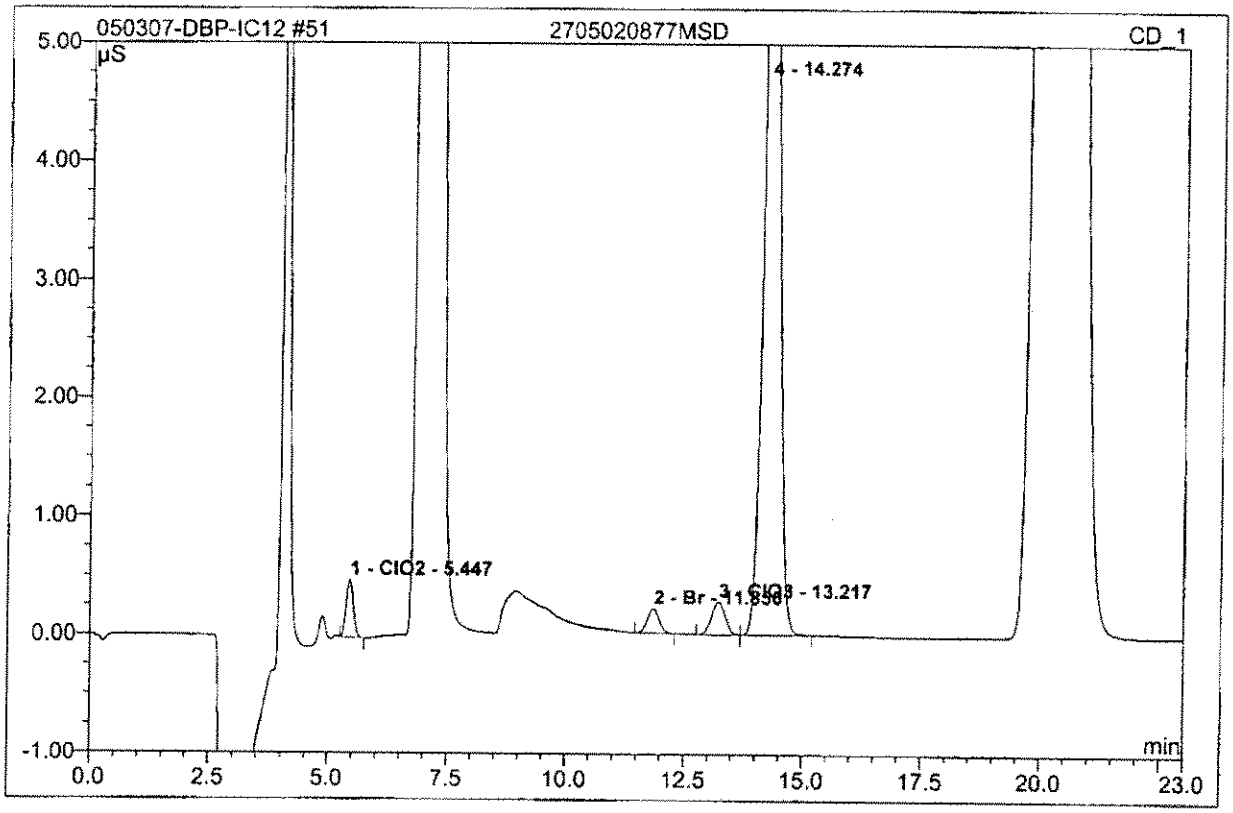
Sample Name:	**2705020877MS**	*Injection Volume:*	**1000.0**
Vial Number:	**746**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**IC12 test Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**DBP-Method**	*Dilution Factor:*	**1.0000**
Recording Time:	**5/4/2007 4:44**	*Sample Weight:*	**1.0000**
Run Time (min):	**23.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount ppb	Type
1	5.44	ClO2	0.485	0.083	2.78	85.926	BMB
2	11.85	Br	0.205	0.060	1.99	64.702	BMB
3	13.22	ClO3	0.276	0.093	3.12	109.644	BM
4	14.27	n.a.	7.815	2.759	92.11	n.a.	MB
Total:			8.781	2.995	100.00	260.272	

51 2705020877MSD

Sample Name:	**2705020877MSD**	*Injection Volume:*	**1000.0**
Vial Number:	**747**	*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:	**5/4/2007 5:09**	*Sample Weight:*	**1.0000**
Run Time (min):	**23.00**	*Sample Amount:*	**1.0000**

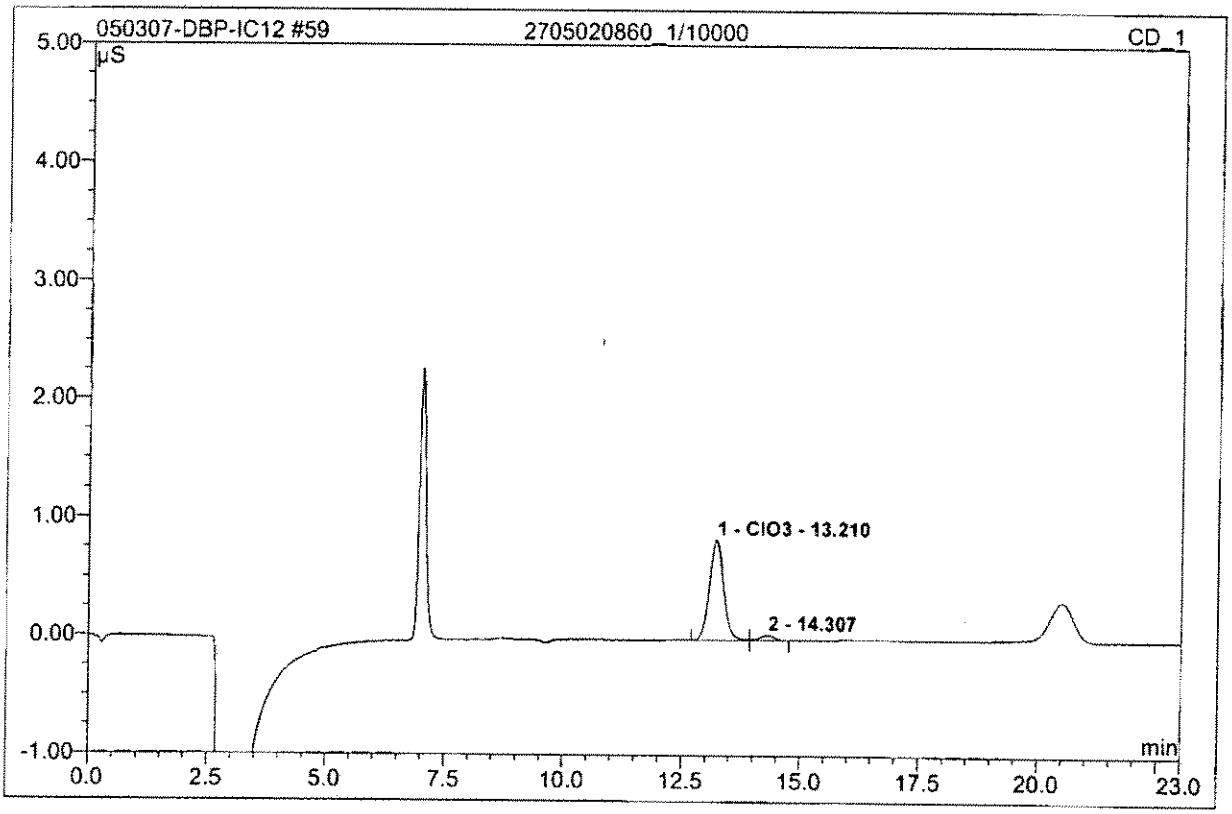


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount ppb	Type
1	5.45	ClO2	0.486	0.084	2.80	86.263	BMB
2	11.85	Br	0.205	0.059	1.98	64.347	BMB
3	13.22	ClO3	0.277	0.093	3.09	108.790	BMB
4	14.27	n.a.	7.812	2.758	92.13	n.a.	BMB
Total:			8.780	2.994	100.00	259.400	

59 2705020860_1/10000

CLO39056

Sample Name:	**2705020860_1/10000**	*Injection Volume:*	**1000.0**
Vial Number:	**755**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**IC12 test Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**DBP-Method**	*Dilution Factor:*	**##########**
Recording Time:	**5/4/2007 8:33**	*Sample Weight:*	**1.0000**
Run Time (min):	**23.00**	*Sample Amount:*	**1.0000**

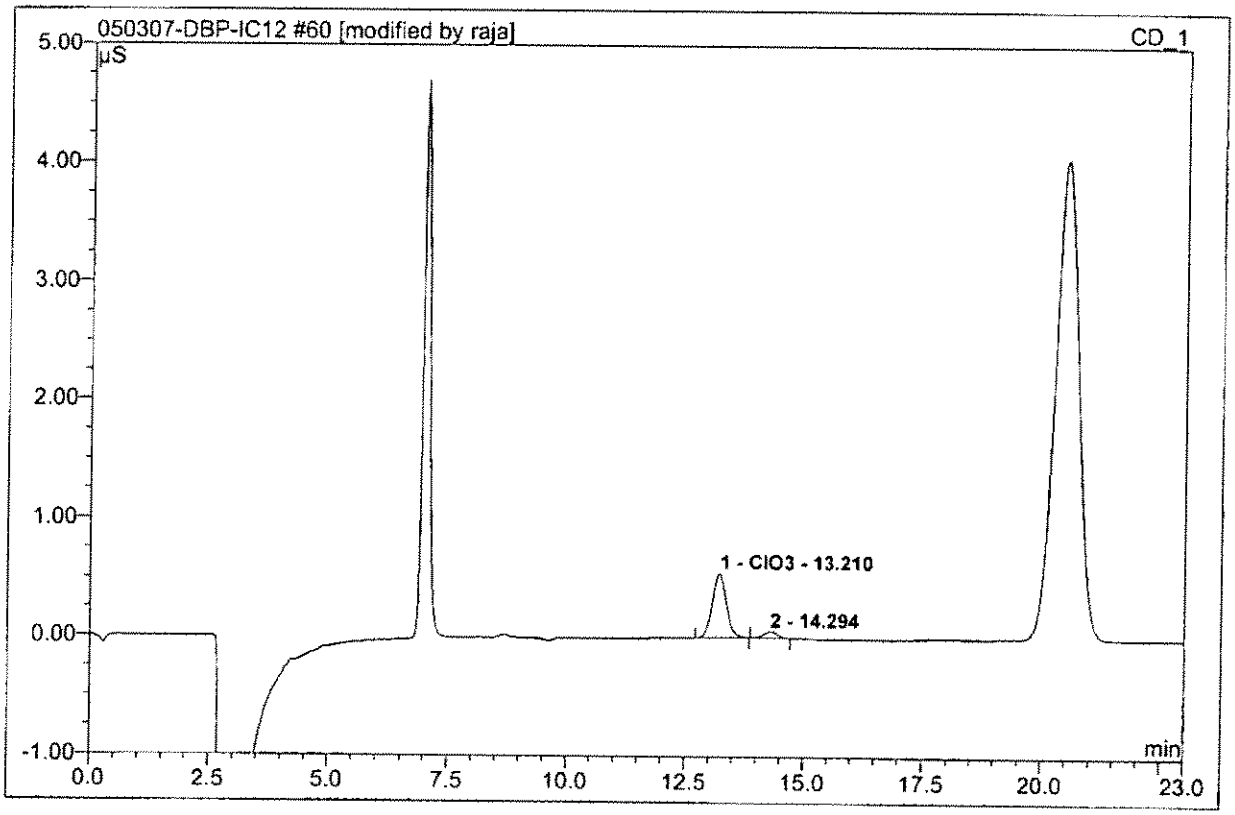


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount ppb	Type
1	13.21	ClO3	0.843	0.295	94.55	3435387.350	BM
2	14.31	n.a.	0.045	0.017	5.45	n.a.	MB
Total:			0.889	0.312	100.00	3435387.350	

60 2705020862_1/1000

CLO39056

Sample Name:	**2705020862_1/1000**	*Injection Volume:*	**1000.0**
Vial Number:	**756**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**IC12 test Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**DBP-Method**	*Dilution Factor:*	**1000.0000**
Recording Time:	**5/4/2007 8:58**	*Sample Weight:*	**1.0000**
Run Time (min):	**23.00**	*Sample Amount:*	**1.0000**

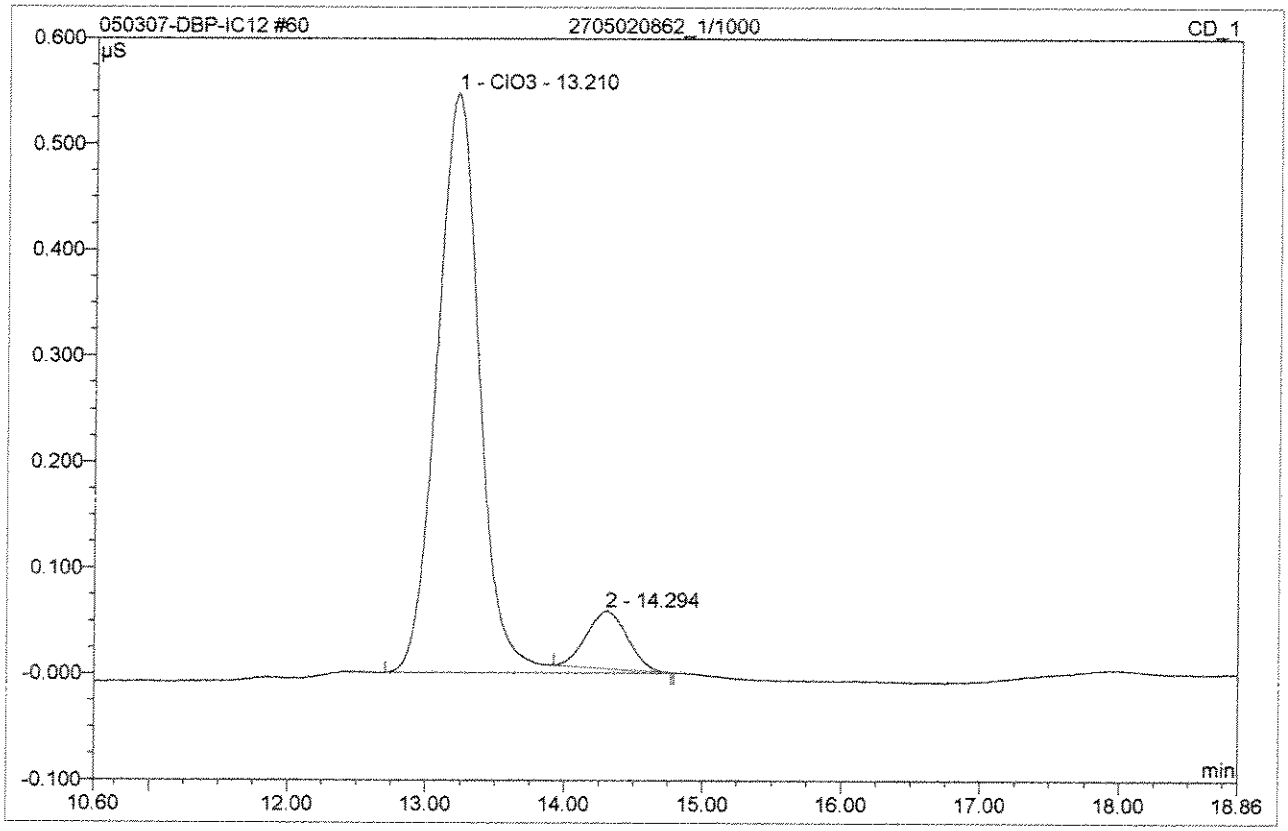


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount ppb	Type
1	13.21	ClO3	0.543	0.188	90.97	220145.014	BMB*
2	14.29	n.a.	0.054	0.019	9.03	n.a.	BMB*
Total:			0.597	0.207	100.00	220145.014	

60 2705020862_1/1000

CLO39056

Sample Name:	**2705020862_1/1000**	*Injection Volume:*	**1000.0**
Vial Number:	**756**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**IC12 test Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**DBP-Method**	*Dilution Factor:*	**1000.0000**
Recording Time:	**5/4/2007 8:58**	*Sample Weight:*	**1.0000**
Run Time (min):	**23.00**	*Sample Amount:*	**1.0000**

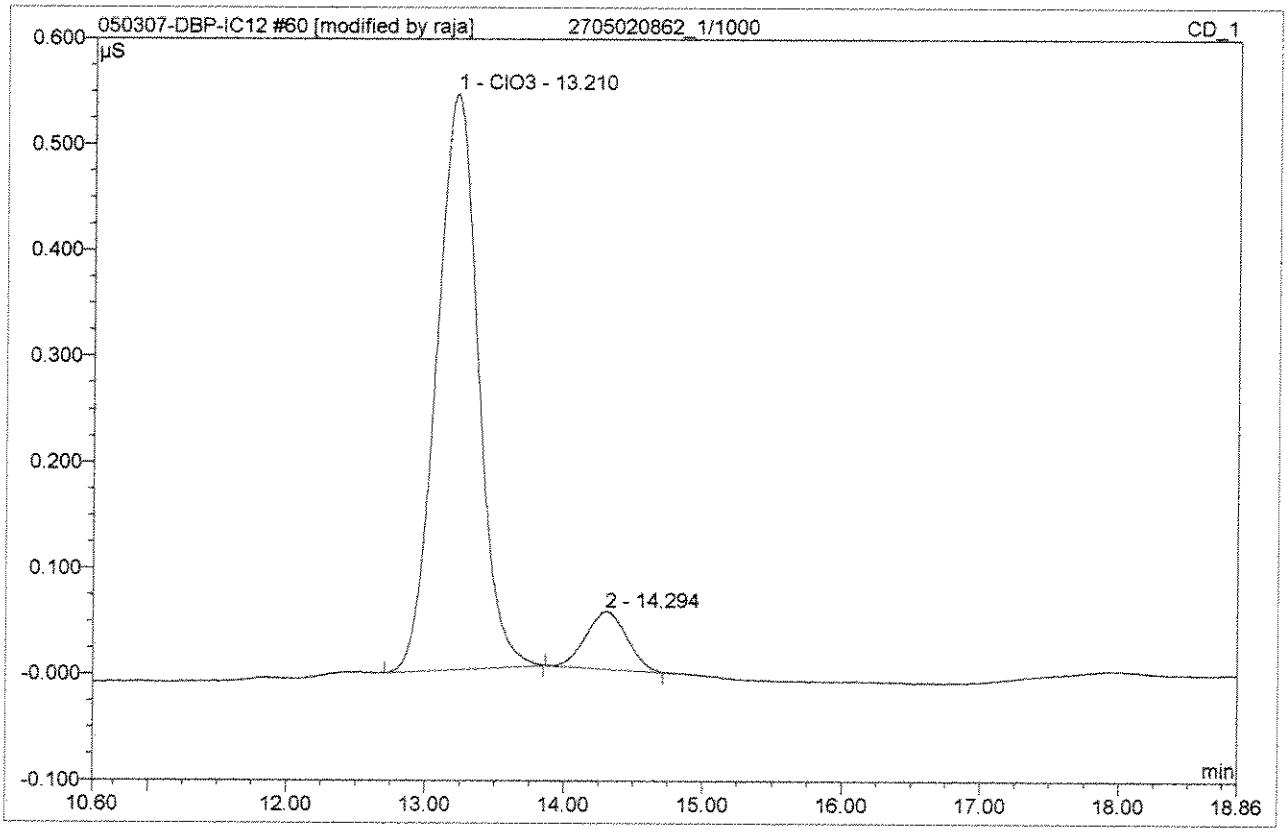


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount ppb	Type
1	13.21	ClO3	0.546	0.196	91.28	229231.410	BMB
2	14.29	n.a.	0.054	0.019	8.72	n.a.	Rd
Total:			0.600	0.215	100.00	229231.410	

60 2705020862_1/1000

CLO39056

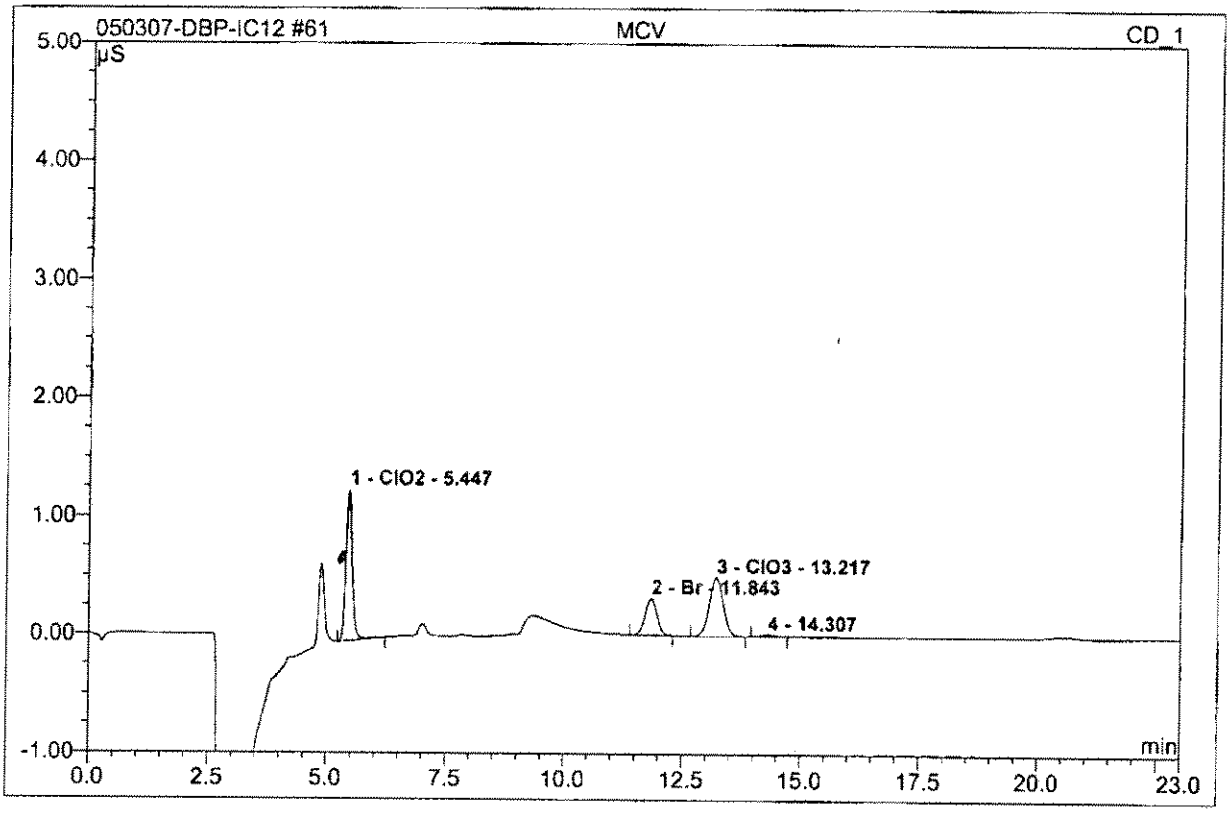
Sample Name:	**2705020862_1/1000**	*Injection Volume:*	**1000.0**
Vial Number:	**756**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**IC12 test Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**DBP-Method**	*Dilution Factor:*	**1000.0000**
Recording Time:	**5/4/2007 8:58**	*Sample Weight:*	**1.0000**
Run Time (min):	**23.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount ppb	Type
1	13.21	ClO3	0.543	0.188	90.97	220145.014	BMB*
2	14.29	n.a.	0.054	0.019	9.03	n.a.	BMB*
Total:			0.597	0.207	100.00	220145.014	

61 MCV

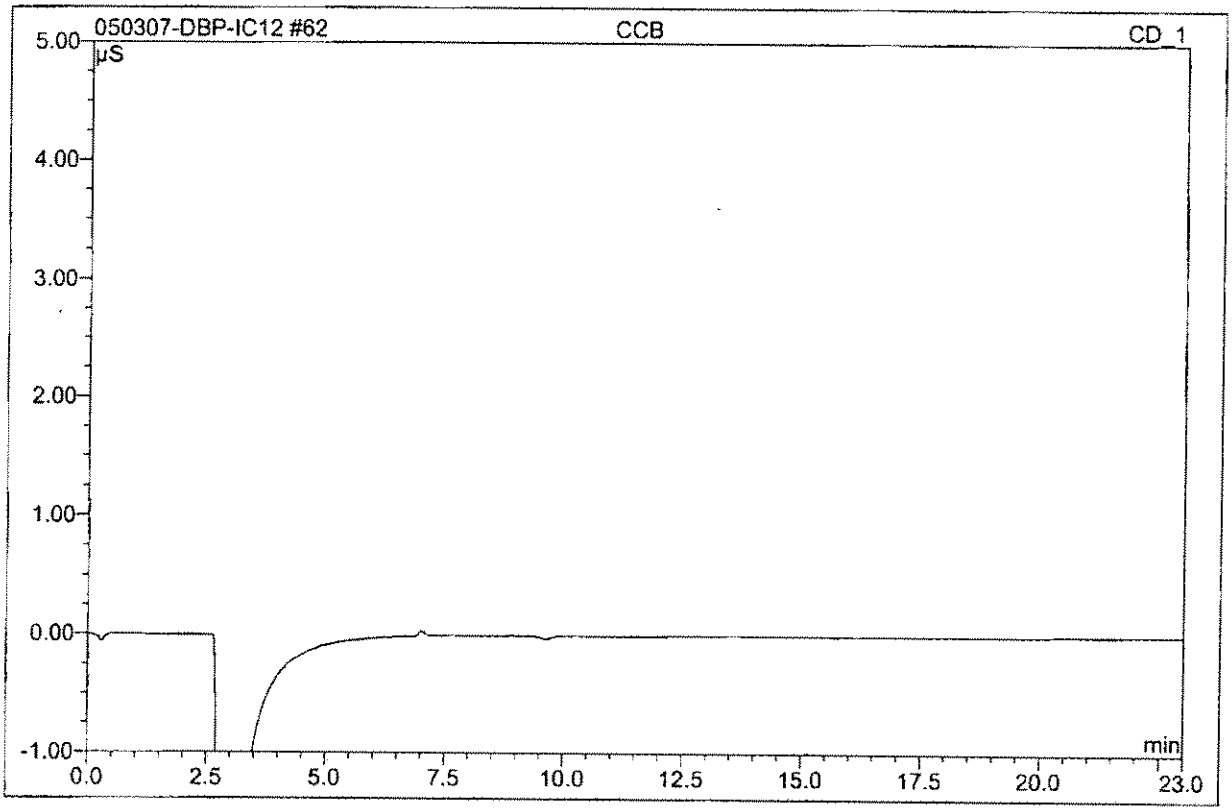
Sample Name:	**MCV**	*Injection Volume:*	**1000.0**
Vial Number:	**757**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**IC12 test Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**DBP-Method**	*Dilution Factor:*	**1.0000**
Recording Time:	**5/4/2007 9:23**	*Sample Weight:*	**1.0000**
Run Time (min):	**23.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount ppb	Type
1	5.45	ClO2	1.276	0.197	42.34	201.224	BMB
2	11.84	Br	0.313	0.092	19.74	98.973	BMB
3	13.22	ClO3	0.497	0.171	36.73	199.531	BMB
4	14.31	n.a.	0.016	0.006	1.20	n.a.	BMB
Total:			2.103	0.464	100.00	499.728	

62 CCB

Sample Name:	**CCB**	*Injection Volume:*	**1000.0**
Vial Number:	**758**	*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:	**5/4/2007 9:49**	*Sample Weight:*	**1.0000**
Run Time (min):	**23.00**	*Sample Amount:*	**1.0000**

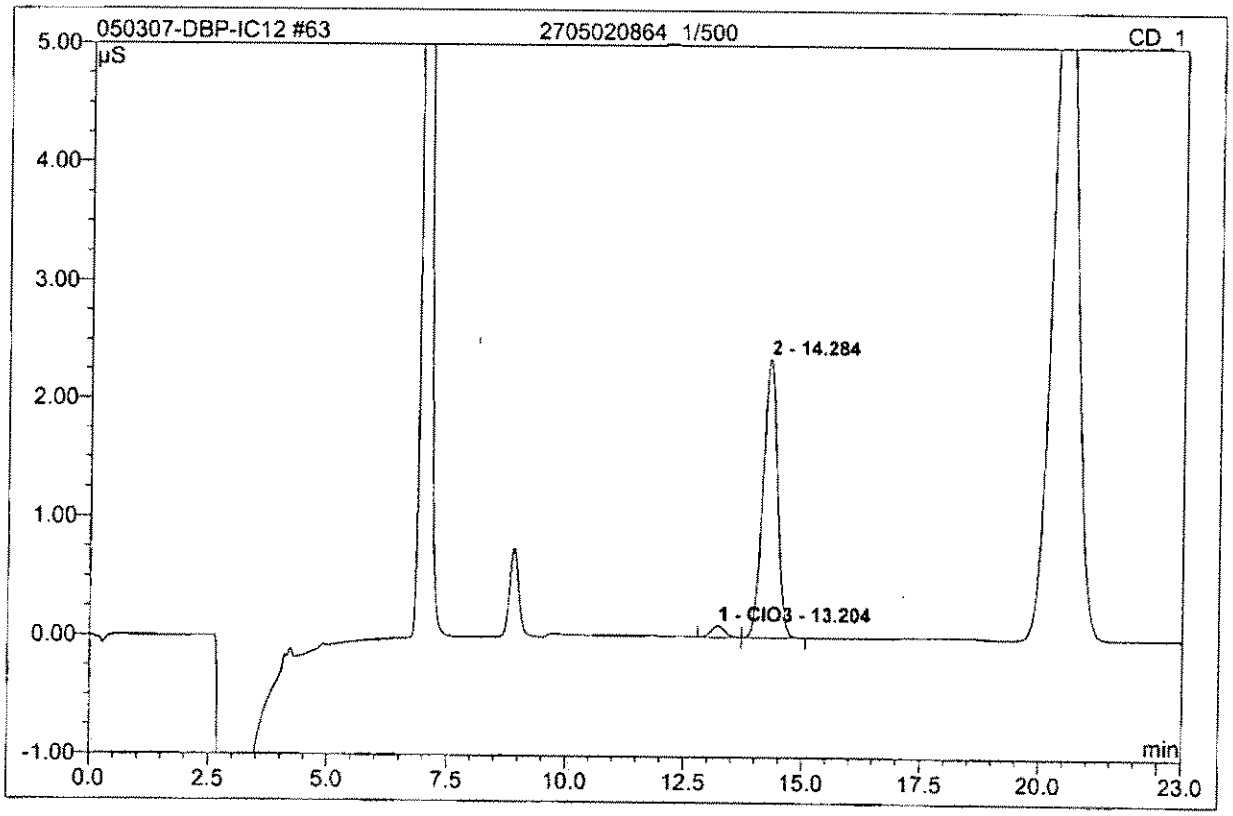


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount ppb	Type
Total:			0.000	0.000	0.00	0.000	

63 2705020864_1/500

CLO39056

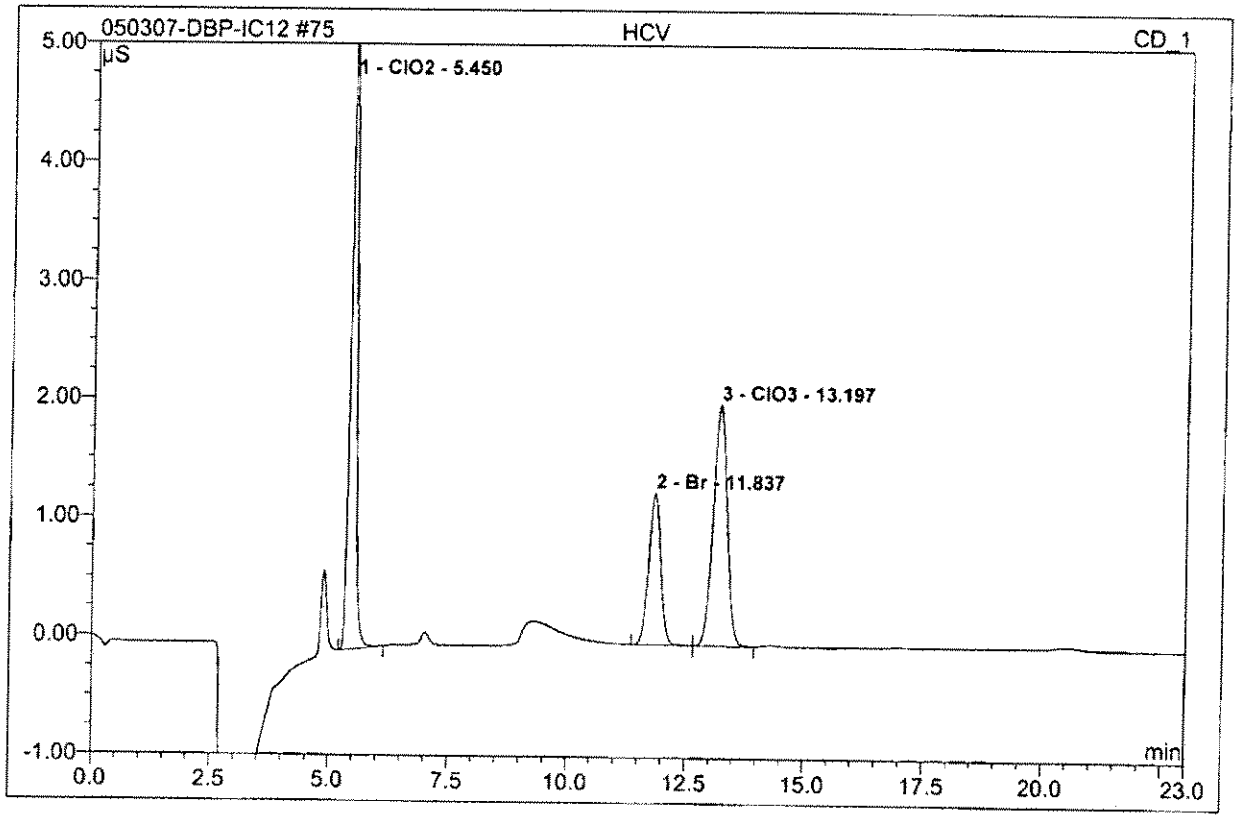
Sample Name:	**2705020864_1/500**	*Injection Volume:*	**1000.0**
Vial Number:	**759**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**IC12 test Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**DBP-Method**	*Dilution Factor:*	**500.0000**
Recording Time:	**5/4/2007 10:14**	*Sample Weight:*	**1.0000**
Run Time (min):	**23.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount ppb	Type
1	13.20	ClO3	0.096	0.033	3.74	19227.054	BMB
2	14.28	n.a.	2.348	0.841	96.26	n.a.	BMB
Total:			2.444	0.873	100.00	19227.054	

75 HCV

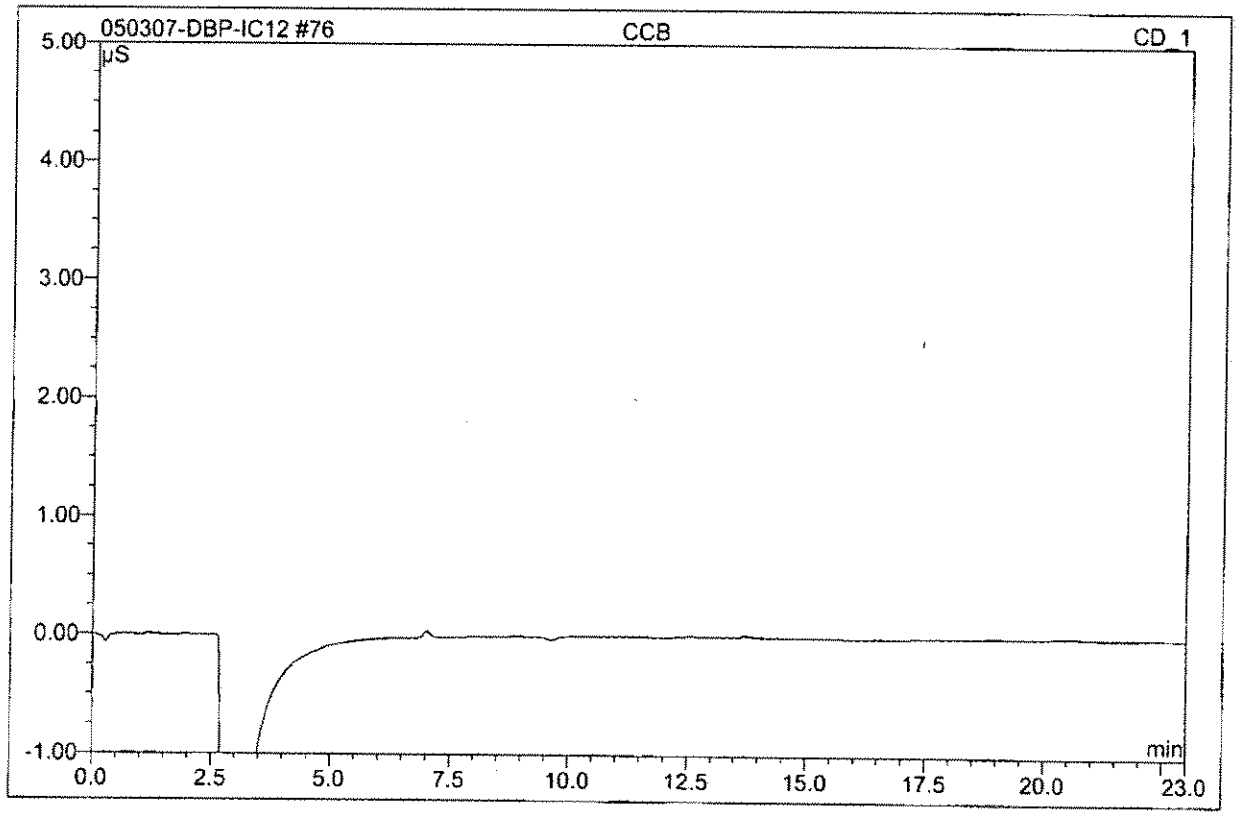
Sample Name:	**HCV**	*Injection Volume:*	**1000.0**
Vial Number:	**771**	*Channel:*	**CD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**IC12 test Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**DBP-Method**	*Dilution Factor:*	**1.0000**
Recording Time:	**5/4/2007 15:23**	*Sample Weight:*	**1.0000**
Run Time (min):	**23.00**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount ppb	Type
1	5.45	ClO2	5.359	0.813	43.21	793.246	BMB
2	11.84	Br	1.272	0.375	19.93	397.916	BMB
3	13.20	ClO3	2.031	0.693	36.85	791.923	BMB
Total:			8.661	1.882	100.00	1983.085	

76 CCB

Sample Name:	**CCB**	*Injection Volume:*	**1000.0**
Vial Number:	**772**	*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:	**5/4/2007 15:48**	*Sample Weight:*	**1.0000**
Run Time (min):	**23.00**	*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	

Standard Preparation Worksheet & Certificate of Analysis

Reagent Preparation Documentation

Page: 8

Reagent: DBP Calibration stock ~~Sto~~ RR solution
Date Received/Prepped: 052006/060606/062206/071306/072506/080806
Date Expired: 062006/070606 C70606/072206 Raja/081306/082506/090806
Manufacturer:
Storage Condition:

MW #: Raja060520-2 ✓
By: Raja
Matrix: aq
Amount: 100ml
Lot #:

Component	Comment	Standard	Concentration
Bromide 1000ppm Exp:- 06/07	500 µL + add 50 µL EDA solution (LMR060129-12) then dilute to 100ml with D.I water	R201373	5ppm
Chlorate 1000ppm Exp:- 06/07	1000 µl	R201374	10ppm
Chlorite 1000ppm Exp:- 06/07	1000 µL	R201375	10ppm

Comment: 082706/100106/~~110106~~ 110106 Raja 11-01-06/111606/122006/010807/020607/
Expired 092706/~~110106~~ 110106 Raja 120106/120906/121606/012007/020807/030607/

Reagent: DBP Calibration Standard #1
Date Received/Prepped: 052006/060606/062206/071306/072506/080806
Date Expired: 062006/070606/072206/081306/082506/090806
Manufacturer:
Storage Condition:

MW #: Raja060520-3 ✓
By: Raja
Matrix: aq
Amount: 100ml
Lot #:

Component	Comment	Standard	Concentration
DBP calib. stock soln	100 µL + Dilute with D.I. water to 100ml	Raja060520-2	Br- 5ppb
			ClO_2 - 10ppb
EDA solution	50 µL	LMR060129-12	ClO_3 - 10ppb

Comment: Used as MRL-Check Prep:- 082706/100106/~~110106~~/110106/111606/122006/010807
Exp:- 092706/110106/~~120106~~/~~110106~~ 120106/121606/012007/020807
Raja 11-01-06

Reagent: DBP Calibration Standard #2
Date Received/Prepped: 052006/060606/062206/071306/072506/080806
Date Expired: 062006/070606/072206/081306/082506/~~080806~~ 090806 Raja
Manufacturer:
Storage Condition:

MW #: Raja060520-4 ✓
By: Raja
Matrix: aq
Amount: 100ml
Lot #:

Component	Comment	Standard	Concentration
DBP calib. stock soln	200 µL + Dilute with D.I. water to 100ml	Raja060520-2	Br- 10ppb
			~~Br~~
EDA Solution	50 µL	LMR060129-12	ClO_2 - 20ppb
			ClO_3 - 20ppb

Comment: Prep:- 082706/100106/~~110106~~ 110106/111606/122006/010807/020607/
Exp:- 092706/110106/~~120106~~ 120106/121606/012007/020807/030607/

Reagent Preparation Documentation

Reagent: DBP Calibration Standard #3
Date Received/Prepped: 052006/060606/062206/071306/072506/080806
Date Expired: 062006/070606/072206/081306/082506/090806
Manufacturer:
Storage Condition:

MW #: Raja060520-5 ✓
By: Raja
Matrix: aq
Amount: 100ml
Lot #:

Component	Comment	Standard	Concentration
DBP Calib. Stock Soln	1ml @ Dilute with D.I water to 100ml	Raja060520-2	Br - 50ppb
			ClO_2 - 100ppb
EDA Solution	50µL	LMR060129-12	ClO_3 - 100ppb

Comment: Prep:- 082706 / 100106 / 110406 / 110106 / 111606 / 122006 / 010807 / 020607 /
Exp:- 092706 / 110106 / 120406 / 120106 / 121606 / 012007 / 020807 / 030607 /

Reagent: DBP Calibration Standard #4
Date Received/Prepped: 052006/060606/062206/071306/072506/080806
Date Expired: 062006/070606/072206/081306/082506/090806
Manufacturer:
Storage Condition:

MW #: Raja060520-6 ✓
By: Raja
Matrix: aq
Amount: 100ml
Lot #:

Component	Comment	Standard	Concentration
DBP Calib Stock soln	2ml @ Dilute with D.I water to 100ml	Raja060520-2	Br - 100ppb
			ClO_2 200ppb
EDA Solution	50µL	LMR060129-12	ClO_3 ~~300~~ 400ppb Raja

Comment: It is also used as MCV Prep:- 082706 / 100106 / 110406 / 110106 / 111606 / 122006
Exp:- 092706 / 110106 / 120406 / 120106 / 121606 / 012007

Reagent: DBP Calibration Standard #5
Date Received/Prepped: 052006/060606/062206/071306/072506/080806
Date Expired: 062006/070606/072206/081306/082506/090806
Manufacturer:
Storage Condition:

MW #: Raja060520-7 ✓
By: Raja
Matrix: aq
Amount: 100ml
Lot #:

Component	Comment	Standard	Concentration
DBP Calib. stock soln	4ml @ Dilute to 100ml with D.I. water	Raja060520-2	Br - 200ppb
			ClO_2 - 400ppb
EDA solution	50µL	LMR060129-12	ClO_3 - 400ppb

Comment: Prep:- 082706 / 100106 / 110406 / 110106 / 111606 / 122006 / 010907 / 020607
Exp:- 092706 / 110106 / 120406 / 120106 / 121606 / 012007 / 020807 / 030607

Reagent Preparation Documentation

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Reagent: DBP Calibration Standard #6
Date Received/Prepped: 052006/060606/062206/071306/072506/080806
Date Expired: 062006/070606/072206/081306/082506/090806
Manufacturer:
Storage Condition:

MW #: Raja060520-8
By: Raja
Matrix: aq
Amount: 100ml
Lot #:

Component	Comment	Standard	Concentration
DBP calib stock soln	8mL } Dilute to 100ml with D.I. water	Raja060520-2	Br-400ppb
			ClO_2-800ppb
EDA	50µL	LMR060129-12	ClO_3-800ppb

Comment: Used as HCV Prep:- 082706 / 100106 / 110406 / 110106 / 111606 / 122006 / 010807 / 020607
Exp:- 092706 / 110106 / 120406 / 120106 / 121606 / 012007 / 020807 / 030607

Reagent: IPCCV Solution for ClO_4 25ppb
Date Received/Prepped: 062406/071206/072206/080706/ /
Date Expired: 092406/101206/102206/110706/ /
Manufacturer:
Storage Condition:

MW #: Raja060624-1
By: Raja
Matrix: aq
Amount: 100ml
Lot #:

Component	Comment	Standard	Concentration
Na_2CO_3 10,000ppm	4ml } Dilute to 100ml with D.I. water	LYL050510-06	400ppm
NaCl 10,000ppm	4ml	LYL050510-04	400ppm
Na_2SO_4 10,000ppm	4ml	LYL050510-05	400ppm
ClO_4 calib stock	2.5ml		25ppb

Comment:

Reagent: Na_2SO_4 Solution - ClO_4
Date Received/Prepped: 081406/110906/011707/032307/052107/
Date Expired: 111406/020907 ~~020907~~/041707/062307 ~~062307~~/082107/
Manufacturer:
Storage Condition:

MW #: Raja060814-1
By: Raja
Matrix: aq
Amount: 100ml
Lot #:

Component	Comment	Standard	Concentration
Na_2SO_4	1.48g → Dilute to 100ml with D.I. water	R200651	10,000ppm
exp:- 03/08			

Comment:

Reagent Preparation Documentation

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Reagent: 300.1 Multi-element Calibration Std - 7
Date Received/Prepped: 29Jan06 / 9 Feb 06 / 25 Apr 06 / 16 May 06 / 12 Apr 06 / 1 May 06
Date Expired: / / / / /
Manufacturer:
Storage Condition:

MW #: LMR060129-11
By: LMR
Matrix: aq
Amount: 100ml
Lot #: –

Component	Comment	Standard	Concentration ppb (µg/L)
BrO_3 - 1000 ppb	5000 µl }	LMR050109-3	50
ClO_2/ClO_3 - 10 ppm	2000 µl } Combine and dilute to 100ml	LMR050825-1	200 ea
Anion Cal Mix	2000 µl } w/DI H_2O	LMR060129-4	NO2-200 NO3-200 Cl-2000 Br-80 SO4-4000 OPO4-1000
EDA - 100000 ppm	50 µl }	LMR060129-12	50 ppm

Comment:

Reagent: Ethylenediamine - 100,000 ppm (EDA)
Date Received/Prepped: 29Jan06 / 10Jul06 / / / /
Date Expired: / / / / /
Manufacturer:
Storage Condition:

MW #: LMR060129-12
By: LMR
Matrix: aq
Amount: 100 ml
Lot #: –

Component	Comment	Standard	Concentration
Ethylenediamine	11.2 ml diluted to 100ml w/DI H_2O	R200653	100 000 ppm
	use 50 µl per 100 ml		

Comment:

Reagent: BrO_3 Color Reagent
Date Received/Prepped: 1/29/06 / 2/2/06 / 2/6/06 / 2/8/06 / 2/14/06 / 2/20/06 / 2/24/06 / 3/1/06
Date Expired: / / / / /
Manufacturer:
Storage Condition:

MW #: LMR060129-13
By: LMR
Matrix: aq
Amount: 2-L
Lot #: –

Component	Comment	Standard	Concentration
o-dianisidine (ODA)	1g dissolved in 400ml HPLC/pest grade Methanol	R201258	
KBr	10g dissolved in ~1.4L H_2O (DI)	R201284	
Ultrex HNO_3	160 ml	R201319	
		R201320 (2/8 - 3/1/06), 3/9/06; 3/14/06, 3/20/06	
		R201364 (19 May 06; 5/ 6/06; 5/22/06; 6/2/06; 6/13/06; 6/13/06) R201393 (6/26/06; 7/4/06; 7/7/06; 7/14/06; 7/24/06; 8/3/06)	

Comment: Add ODA to MeOH and dissolve. Using a 2-L vol flask dissolve KBr in DI H_2O. Add HNO_3 to KBr solution. Add ODA to KBr/HNO_3 sol'n and bring to mark w/DI H_2O. Sol'n must be clear in 30 min. Sol'n must stand minimum 16 hrs. before using. Best to stand overnight.

Reagent Documentation

Reagent: Conductivity Std - 1000 µmhos/cm
Date Received: 20 Mar 03
Date Expired: 29 Feb 04
Manufacturer: VWR
Storage Condition: room temp

Reagent #: 200652
By: LMR
Matrix: aq
Amount: 4-L
Lot #: 3049

Component	Comment	Standard	Concentration

Comment:

Reagent: Ethylenediamine
Date Received: 21 Mar 03
Date Expired: —
Manufacturer: J.T. Baker
Storage Condition: room temp

Reagent #: 200653 ✓
By: LMR
Matrix: neat
Amount: 500 ml
Lot #: X18582

Component	Comment	Standard	Concentration
	CAS# 107-15-3		

Comment:

Reagent: Sodium Hydroxide Pellets
Date Received: 21 Mar 03
Date Expired: —
Manufacturer: J.T. Baker
Storage Condition: room temp

Reagent #: 200654
By: LMR
Matrix: solid
Amount: 4 x 500 g
Lot #: X21468

Component	Comment	Standard	Concentration

Comment:

Reagent Documentation

Reagent: Conductivity Std. - 1000 ppm
Date Received: 3 May 06
Date Expired: Jan 07
Manufacturer: Ricca Chemical
Storage Condition: room temp

Reagent #: 201372
By: LMR
Matrix: aq
Amount: 4-L
Lot #: 1601439

Component	Comment	Standard	Concentration
	VWR# RC2243-1		

Comment:

Reagent: Bromide - 1000ppm Std
Date Received: 4 May 06
Date Expired: 1 Jun 07
Manufacturer: Inorganic Ventures
Storage Condition: room temp

Reagent #: 201373 ✓
By: LMR
Matrix: aq
Amount: 125 ml
Lot #: Y-BR01057

Component	Comment	Standard	Concentration
	IV# ICBR1-1		

Comment:

Reagent: Chloride - 1000ppm std
Date Received: 4 May 06
Date Expired: 1 Jun 07
Manufacturer: Inorganic Ventures
Storage Condition: refrigerate 4±2°C

Reagent #: 201374 ✓
By: LMR
Matrix: aq
Amount: 125 ml
Lot #: Y-CLOX01034

Component	Comment	Standard	Concentration
	IV# ICCL031-1		

Comment:

Reagent: Chlorite - 1000 ppm std
Date Received: 4 May 06
Date Expired: 1 Jun 07
Manufacturer: Inorganic Ventures
Storage Condition: refrigerate 4±2°C

Reagent #: 201375 ✓
By: LMR
Matrix: aq
Amount: 125 ml
Lot #: Y-CLOX01036

Component	Comment	Standard	Concentration
	IN # ICCL021-1		

Comment:

Reagent: Ammonium Std - 1000 ppm as NH_4
Date Received: 4 May 06
Date Expired: 3 Oct 07
Manufacturer: CPI
Storage Condition: refrigerate 4±2°C

Reagent #: 201376
By: LMR
Matrix: aq
Amount: 100 ml
Lot #: 06D002

Component	Comment	Standard	Concentration
	CPI # 4400-010010		

Comment:

Reagent: Methylene Blue 1% w/v solution
Date Received: 10 May 06
Date Expired: 30 Nov 07
Manufacturer: VWR
Storage Condition: room temp

Reagent #: 201377
By: LMR
Matrix: aq
Amount: 100 ml
Lot #: 5319

Component	Comment	Standard	Concentration
	VWR # VW02276-0		

Comment:

R# 201373

INORGANIC VENTURES™
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fax: 732.901.1903
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

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 Principals."

2.0 **DESCRIPTION OF CRM** **1000 µg/mL Bromide in Water**

Catalog Number:	ICBR1-1 and ICBR1-5
Lot Number:	**Y-BR01057**
Starting Material:	Potassium Bromide
Starting Material Purity (%):	99.0000
Starting Material Lot No.:	09014BY
Matrix:	Water

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

Certified Concentration: 999 ± 3 µg/mL

Certified Density: 0.998 g/mL (measured at 22° C)

The Certified Value is the instrument analysis value. The following equations are used in the calculation of the certified value and the uncertainty:

Certified Value $(\bar{x}) = \frac{\sum x1}{n}$ $(\bar{x})$ = mean, x1 = individual results, n = number of measurements

Uncertainty $(\pm) = \frac{2[(\sum s1)2]^{1/2}}{(n)^{1/2}}$ $\sum s1$ = The summation of all significant estimated errors (Most common are the errors from instrumental measurement weighting, 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 IV 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 **999 ± 3 µg/mL**
IC Assay NIST SRM 3184 Lot Number: 020701

Assay Method #2 **997 ± 3 µg/mL**
Volhard NIST SRM 999a Lot Number: 999a

4.2 BALANCE CALIBRATION - All balances are checked daily using in-house procedure 6-IMM-001. The weights used for testing are annually compared to Gerhart Scale Corporation's master weights and are traceable to the National Institute of Standards and Technology (NIST). The NIST Traceability numbers are 692476 - Class 1 and 692476A - Class 2. The NIST test number is 822/260017-98. All analytical balances are calibrated every 4 months by Gerhart Scale Corp. of South Amboy. The balances are calibrated with a class 1 and/or class 2 analytical weight set. These weights are tested annually by a NIST / NVLAP accredited calibration lab. The NIST test number is 822/260017-98.

4.3 THERMOMETER CALIBRATION - The thermometers used in the determination of the final densities are calibrated vs standard thermometer No. 903-2680 which was certified in accordance with the procedures outlined by ASTM E77-87 and NIST Monograph 150 using NIST Test Nos. and Std Nos.: 769543, 217368/769543, 217368/P14452, 176240/P14452, 176240. The in-house procedure is 2-QC-001.Thermometers which are not calibrated vs standard thermometer No. 903-2680 are traceable to NIST Identification Nos. 92564, 119016, 471047 and NIST test report Nos. 811/258522, 811/2557078, and 236090.

4.4 GLASSWARE CALIBRATION - In-house procedure 3-QC-002 is used to calibrate all Class A Glassware used in the manufacture and quality control of CRM's.

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5.0 Chromatogram - N/A

6.0 INTENDED USE

For the calibration of analytical instruments including but not limited to the following:
HPLC, IC, TLC, ISE, IR, NMR, UV/VIS, MS, Capillary Eletrophoresis, Potentiometry, Wet Chemistry and Voltammetry
For the validation of analytical methods
For the preparation of "working reference samples"
For interference studies and the determination of correction coefficients
For detection limit and linearity studies
For additional intended uses, contact IV Technical Support

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

Storage & Handling - Keep **Tightly** sealed when not in use. Store and use at 20 ± 4°C. **Do Not** pipette from the container. **Do Not** return portions removed from pipetting to container.

- Elements Specific Information - For specific information regarding the elements in your blend: Go on line at www.inorganicventures.com/extras/pertable <http://www.inorganicventures.com/extras/pertable> Take advantage of our interavtive Periodic Table.
- E-mail Technical Support at ivtech@inorganicventures.com <mailto:ivtech@inorganicventures.com> at any time and a technical representative will respond within 24 business hours.
- Call our toll free Technical Support line at (800) 569-6799 or dial (7320 901-1900, Monday through Friday, from 8:00AM to 6:00PM Eastern Standard Time.

8.0 HAZARDOUS INFORMATION - Please refer to the enclosed Material Safety Data sheet for information regarding this CRM.

9.0 HOMOGENEITY - This solution was mixed according to an in-house procedure IV-MPM-004 and is guaranteed to be homogeneous.

10.0 QUALITY STANDARD DOCUMENTATION

R# 201373

10.1 ISO 9001:2000 Quality Management System Registration - QMI Certificate Number 010105
Recognized by:
Registrar Accreditation Board (ANSI-RAB)
Standards Council of Canada (SCC)
Dutch Council for Accreditation (RVA)
Entidad Mexicana de Acreditacion, a.c.(EMA)
Members of IQ Net International Certification Network:
Argentina (IRAM), Australia (QAS), Austria (ÖQS), Belgium (Avinter) , Brazil (FCAV), Canada (QMI), Hong Kong (HKQAA), Columbia (ICONTEC), Czech Republic (CQS), Denmark (DS), Finland (SFS), France (AFAQ), Germany (DQS), Greece (ELOT), Hungary (MSZT), Ireland (NSAI), Israel (SII), Italy (CISQ), Japan (JQA), Korea (KSA-QA), Netherlands (KEMA), Norway (NCS), Poland(PCBC), Portugal (APCER), Singapore (PSB), Slovenia (SIQ), Spain (AENOR), Switzerland (SQS)

10.2 ISO/IEC 17025 - 1999 "General Requirements for the Competence of Testing and Calibration" - Chemical Testing - Accredited A2LA Certificate Number 883.01

10.3 ISO/IEC Guide 34 - 2000 "General Requirements for the Competence of Reference Material Producers" - Reference Materials Production - Accredited A2LA Certificate Number 883.02
A2LA Mutual Recognition Agreement Partners:
Australia (NATA), Austria (BmwA), Belgium (BELTEST) (BKO-OBE), Canada (SCC), Chinese Taipei (CNLA), Czech Republic (NAO), Denmark (DANAK), Finland (FINAS), France (COFRAC), Germany (DAR), Hong Kong (HKAS, Ireland (NAB), Italy (SIT) (SINAL), Japan (JAB) (JNLA), Republic of Korea (KOLAS), The Netherlands (RvA), New Zealand (IANZ), Norway (NA), Portugal (IPQ), Singapore (SAC-SINGLAS), Spain (ENAC), Sweden (SWEDAC), Switzerland (SAS), United Kingdom (UKAS) and United States (NVLAP) (ICBO ES)

10.4 10CFR50 Appendix B - Nuclear Regulatory Commission - Domestic Licensing of Production and Utilization Facilities

10.5 10CFR21 - Nuclear Regulatory Commission - Reporting Defects and Non-Compliance

10.6 MIL-STD-45662A (Obsolete/Observed)

11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

11.1 IV Shelf Life - The period of time during which the concentration of the analyte(s) in a properly packaged, unopened and unused standard stored under environmentally controlled and monitored conditions will remain within the specified uncertainty range. Shelf life is limited primarily by transpiration (loss of water from the solution) and infrequently, by chemical instability. Transpiration studies (P-SP01020) of chemically-stable solutions performed at the Manufacture's facility shows a CRM shelf-life of four years for solutions packaged in 500-mL low density polyethylene bottles. When stored under special environmental controls that minimize transpiration and instability, the shelf life can be extended past this limit.

11.2 Expiration Date - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life.
The manufacturer concurs with state and federal regulatory agencies' recommendations that solution standards be assigned a one-year expiration date.

Certification Date: February 28, 2006

Expiration Date: [redacted]
1 FEB 07

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By: Nick Maida, QA Administrator

Certificate Approved By: Katalin Le, QC Manager

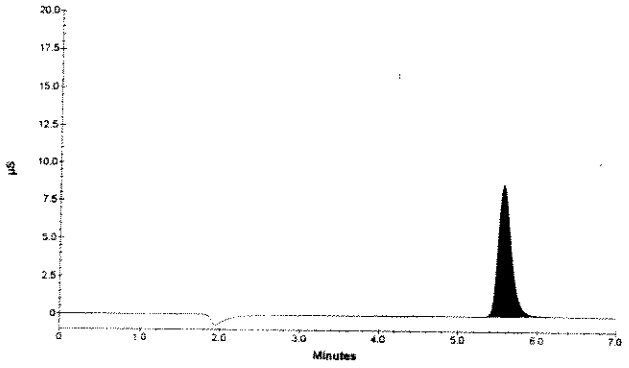
Certifying Officer: Paul Gaines, PhD., Technical Director

R # 201373

ATTACHMENT 1

CHROMATOGRAM FOR: 1000 μg/mL Bromide Y-BR01057

Br^- Y-Br01057



DIONEX DX-120 Ion Chromatograph
Anal. Column: IonPac AS14 4 x 250 mm
Guard Column: IonPac AG14 4 x 50 mm
Anion Self Regenerating Suppressor:
ASRS-ULTRA II 4mm

Suppressor Current:	100 mA
Eluent:	3.5 mM Na_2CO_3
	0.8mM $NaHCO_3$
Eluent Flow Rate:	1.00 mL/min
Cell Temp.:	35 °C
Scale: Y-axis =	20 μS scale
X- axis =	minutes
Concentration: approx.	20 μg/g

K # 201374

INORGANIC VENTURES
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Lakewood, New Jersey 08701 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

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fax: 732.901.1903
info@inorganicventures.com

I-CAL ION CHROMATOGRAPHY SOLUTION 1000 µg/mL Chlorate in H_2O

Catalog No: ICCLO31-1 and ICCLO31-5

Lot Number: **Y-CLOX01034**

Starting Material:	Potassium Chlorate
Starting Material Lot No:	02407TF

CERTIFIED CONCENTRATION: 1008 ± 3 µg/mL

The Certified Value is the Inductively Coupled Plasma Spectroscopy (ICP) value. The following equations are used in the calculation of the certified value and the uncertainty:

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n} \qquad \text{Uncertainty } (\pm) = \frac{2[(\sum s_i)^2]^{1/2}}{(n)^{1/2}}$$

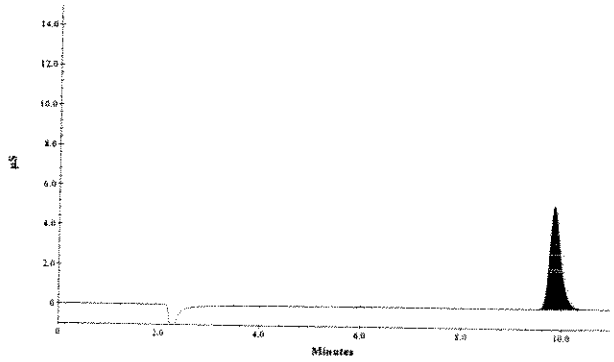
$(\bar{x})$ = mean x_i = individual results n = number of measurements $\sum S_i$ = The summation of all significant estimated errors.

Calculated Value: 1001 ± 5 µg/mL
Method: Calculated, based on starting material.

Instrument Value: 1006 ± 2 µg/mL
Method: Ion Chromatography vs an in-house standard.

Instrument Value: 1008 ± 3 µg/mL
Method: Analysis by Inductively Coupled Plasma Spectroscopy (ICP) vs NIST SRM 3182 Lot number: 990506.

ClO_3^- Y-CLOX01034



DIONEX DX-120 Ion Chromatograph
Anal. Column: IonPac AS9-HC 4 x 250mm
Guard Column: IonPac AG9-HC 4 x 50mm
Anion self Generating Suppressor:
ASRS-ULTRA II 4mm
Suppressor Current: 100mA
Eluent: 9.0 mM Na_2CO_3
Eluent Flow Rate: 1.0 mL/min
Cell Temp.: 35 °C
Scale: Y-axis = 15µS scale
X-axis = minutes
Concentration: 20µg/g

ANALYZED DENSITY OF SOLUTION (measured at 22°C): **0.998 g/mL**

QA:MG

Rev 082405ntm

Paul R. Haines

Expires: EXPIRES 1 2007

 Quality Assurance Manager

R# 201374

QUALITY STANDARD DOCUMENTATION

1. ISO 9001:2000 QMI Registered Quality System (Certificate Number 010105)

Members of IQ Net : Argentina (**IRAM**), Australia (**QAS**), Austria (**ÖQS**), Belgium (**Avinter**) , Brazil (**FCAV**), Canada (**QMI**), Hong Kong (**HKQAA**), Columbia (**ICONTEC**), Czech Republic (**CQS**), Denmark (**DS**), Finland (**SFS**), France (**AFAQ**), Germany (**DQS**), Greece (**ELOT**), Hungary (**MSZT**), Ireland (**NSAI**), Israel (**SII**), Italy (**CISQ**), Japan (**JQA**), Korea (**KSA-QA**), Netherlands (**KEMA**), Norway (**NCS**), Poland(**PCBC**), Portugal (**APCER**), Singapore (**PSB**), Slovenia (**SIQ**), Spain (**AENOR**), Switzerland (**SQS**)

2. ISO/IEC Guide 34-2000 "General Requirements for the Competence of Reference Material Producers" - Reference Materials Production - Accredited A2LA Certificate 883.02
3. ISO/IEC17025-1999 "General Requirements for the Competence of Testing and Calibration" - Chemical Testing - Accredited A2LA Certificate 883.01
4. MIL-STD-45662A
5. 10CFR50 Appendix B - Nuclear Regulatory Commission - Domestic Licencing of Production and Utilization Facilities
6. 10CFR21 - Nuclear Regulatory Commission - Reporting Defects and Non-Compliance

Please contact our Quality Assurance Department for further information and copies of documents pertaining to our Quality Standard certifications.

STABILITY/ EXPIRATION DOCUMENTATION

Shelf Life - The length of time that a properly stored and packaged standard will remain within the specified uncertainty. Shelf life is affected by chemical stability and transpiration issues. Inorganic Ventures' Standard Solutions are chemically stable indefinitely. Transpiration loss is linear with time and limits the time a standard can be used with confidence. The smaller the bottle the higher the rate of transpiration. Inorganic Ventures' studies indicate that the shelf life of our 500 mL bottle is 4 years and the shelf life of our 125 mL bottle is 21 months.

Expiration Date - The date after which a standard solution should not be used. A one year expiration date is recommended by most state and federal regulatory agencies. Transpiration issues and repeated use of solutions over a one year period may adversely affect the integrity of the standard.

PACKAGING DOCUMENTATION

Purified acid, 18 megohm double deionized water that has been filtered through a 0.2 μm filter and in-house procedure IV-PACK-001 is used to clean all bottles. Contact us for technical information relating to contamination issues in packaging materials.

GLASSWARE CALIBRATION

In-house procedure 3-QC-002 is used to calibrate all Class A Glassware used in the manufacture and quality control of Custom Grade Standards.

BALANCE CALIBRATION

All balances are checked daily using in-house procedure number 6-IMM-001. The weights used for testing are annually compared to Gerhart Scale Corporation's master weights and are traceable to the National Institute of Standards and Technology (NIST). The NIST Traceability numbers are 428359B and 454678. The NIST test number is 822/260017-98.

All analytical balances are calibrated every 4 months by Gerhart Scale Corp. of South Amboy. The balances are calibrated with a class 1 analytical weight set. These weights are tested annually by a NIST / NVLAP accredited calibration lab. The NIST test number is 822/260017-8.

THERMOMETER CALIBRATION

The thermometers used in the determination of the final densities are calibrated vs standard thermometer No. 903-2680 which was certified in accordance with the procedures outlined by ASTM E77-87 and NIST Monograph 150 using NIST Test Nos. and Std Nos.: 769543, 217368/769543, 217368/P14452, 176240/P14452, 176240. The in-house procedure No. is 2-QC-001.Thermometers which are not calibrated vs standard thermometer No. 903-2680 are traceable to NIST Identification Nos. 92564, 119016, 471047 and NIST test report Nos. 811/258522, 811/2557078, and 236090.

TECHNICAL SUPPORT

All customers are encouraged to contact us for technical support for the proper use of our products.

TEL 1-800-569-6799 INT'L 1-732-901-1900 FAX 1-732-901-1903 E-MAIL IVtech@ivstandards.com

R#201375

INORGANIC VENTURES™
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fax: 732.901.1903
info@inorganicventures.com

CERTIFICATE OF ANALYSIS

I-CAL ION CHROMATOGRAPHY SOLUTION 1000 µg/mL Chlorite in H_2O

Catalog No: ICCLO21-1and ICCLO21-5

Lot Number: **Y-CLOX01036**

Starting Material:	Sodium Chlorite
Starting Material Lot No:	E02F39

CERTIFIED CONCENTRATION: 998 ± 3 µg/mL

*** The Certified Concentration for Lot No. Y-CLOX01036 is only the ClO_2^-. The value of Cl^- is 6 ± 1 µg/mL, and the value of ClO_3^- is 12 ± 1 µg/mL. This was determined by Ion Chromatography vs an in-house standard solutions traceable to NIST SRM 3182.**

The Certified Value is based upon the wet assay value. The following equations are used in the calculation of the certified value and the uncertainty:

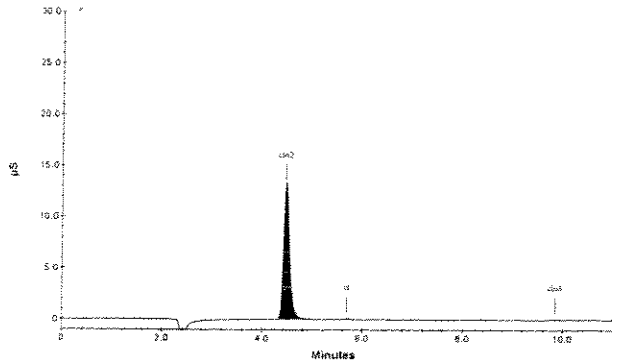
$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n} \qquad \text{Uncertainty } (\pm) = \frac{2[(\sum s_i)^2]^{1/2}}{(n)^{1/2}}$$

$(\bar{x})$ = mean x_i = individual results n = number of measurements $\sum S_i$ = The summation of all significant estimated errors.

Instrument Value: 1002 ± 2 µg/mL
Method:Ion Chromatography vs NIST SRM 136e Lot number 980702.

Wet Analysis: 998 ± 3 µg/mL
Method: Iodometric Titration NIST SRM 136e Lot number 980702.

ClO_2^- Y-CLOX01036



DIONEX DX-120 Ion Chromatograph
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Guard Column: IonPac AG9-HC 4 x 50mm
Anion self Generating Suppressor:
ASRS-ULTRA II 4mm
Suppressor Current: 100mA
Eluent: 9 mM Na_2CO_3
Eluent Flow Rate: 1.00 mL/min
Cell Temp.: 35 °C
Scale:Y-axis = 30µS scale
X-axis = minutes
Concentration: 20µg/g

ANALYZED DENSITY OF SOLUTION (measured at 22°C): 0.998 g/mL

QA:KL Rev 032006NTM

Paul R Haines
Quality Assurance Manager

Expires: EXPIRES 1 Jan 2007

R#201375

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2. ISO/IEC 17025-1999 - Chemical Testing - Accredited A2LA (Certificate Number 883.01)
3. ISO/IEC Guide 34-2000 - Reference Materials Production - Accredited A2LA (Certificate Number 883.02)
4. 10CFR50 Appendix B
5. 10CFR21

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STABILITY/ EXPIRATION DOCUMENTATION

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TECHNICAL SUPPORT

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