

TABLE OF CONTENTS

| | |
|--|----|
| Cover page | 2 |
| QC Checklist | 3 |
| Summary Sheet | 4 |
| Conductivity Analysis..... | 5 |
| Sequence Log | 7 |
| Initial Calibration | 9 |
| Periodic QC..... | 19 |
| QC: (Method Blank; MRL Check; LCS1/LCS2) | 21 |
| 2705080517..... | 26 |
| 2705080516..... | 27 |
| QC: (Matrix Spike 2705100094 (MS/MSD))..... | 28 |
| Closing QC..... | 31 |
| Standard Preparation Worksheet and Certificate of Analysis | 34 |

Level IV Data Package

MWH Group 203814

Method: 314

Sample No.:

2705080516

2705080517

Perchlorate QC Checklist

rev: 27 Mar 03

Analysis Date: 5-17-07 Analyst: Paja

QC'd by LN Date 23 May 07

Instrument: EC11 Calculated MCT Level: 3155 umhos/cm

Original IPC conductance: 3115 umhos/cm Daily IPC conductance: 3127 umhos/cm

Calibration including QCS

QCS (20ppb) recovery is within 90% - 110% (18-22ppb) to verify that the calibration curve (minimum 5 points) still holds.

Calibration curve is reanalyzed if QCS fails. Correlation Coefficient is 0.995 or better.

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

MBLANK is analyzed before samples. Perchlorate, if present, is $<$ or $=$ half of the MRL.

~~N/A~~ L-ClO₄ only: ICCSCV at 2ppb is within 50%-150% (1-3ppb)

ClO₄ only: MRL at 4ppb is within 75%-125% (3-5ppb)

IPC (25ppb) recovery is between 80%-120% (20-30ppb)

IPC retention time is within 5% of the retention time of the standards

IPC Conductance level is within 10% of the original

PDA/H = 0.27%
0.43% (R)
23 May 07

LCS/LCSD (25ppb)

Recoveries are between 90%-110% (22.5 - 27.5ppb)

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

MS/MSD (25ppb) NOTE: For UCMR, MS/MSD concentrations alternate between 4ppb and 25ppb

Recoveries are within 80%-120% (20-30ppb) for 25ppb spike ~~N/A~~ (3.2-4.8ppb) for 4ppb spike

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

RPD between MS and MSD is within 15%.

Continuing Calibration Verification (MCV, HCV) NOTE: For UCMR ECV and MCV are required

Verification Checks alternate between mid- and high-level during the analysis (low- and mid-level for UCMR)

MCV (25ppb) recovery is between 85%-115% (21.25 - 28.75ppb)

HCV (100ppb) recovery is between 85%-115% (85-115ppb) ~~N/A~~ ECV (4ppb) recovery is between 75%-125% (3.0-5.0)

Pretreat and include the following QC parameters for any batch or part thereof containing samples requiring pretreatment

~~N/A~~ One Laboratory Reagent Blank (LRB). Perchlorate is $<$ or $=$ half of MRL.

~~N/A~~ One pair of Laboratory Control Samples (LCS/LCSD). Recovery of perchlorate is between 85%-115%.

~~N/A~~ One Pair of Laboratory Fortified Matrices (MS/MSD). Recoveries are between 80%-120%

Samples

All samples are analyzed within 28 days of collection.

All samples are analyzed within MCT Conductance limit.

QIR

~~N/A~~ QIR needed for failed QC

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

| Sample No. | Sample Name | Dil.Fac. | Comment | Time | Amount | CLO4 CD_1 |
|------------|----------------------|----------|--------------|----------------|-------------|------------|
| 1 | wash | 1.0 | | 05.17.07 11:10 | | n.a. |
| 2 | autocal1 | 1.0 | | 05.17.07 11:33 | | n.a. |
| 3 | autocal2 | 1.0 | RAJA060913-2 | 05.17.07 11:55 | 1.9190 | |
| 4 | autocal3 | 1.0 | RAJA060913-3 | 05.17.07 12:18 | 4.0706 | |
| 5 | autocal4 | 1.0 | RAJA060913-4 | 05.17.07 12:40 | 9.9039 | |
| 6 | autocal5 | 1.0 | RAJA060913-5 | 05.17.07 13:02 | 25.4333 | |
| 7 | autocal6 | 1.0 | RAJA060913-6 | 05.17.07 13:25 | 49.7144 | |
| 8 | autocal7 | 1.0 | RAJA060913-7 | 05.17.07 13:47 | 100.0431 | |
| 9 | wash | 1.0 | | 05.17.07 14:10 | | n.a. |
| 10 | QCS | 1.0 | | 05.17.07 14:32 | 20.2178 | blx |
| 11 | IPC | 1.0 | | 05.17.07 14:54 | 24.6573 | 98.6% |
| 12 | MBLK | 1.0 | | 05.17.07 15:17 | | n.a. |
| 13 | MRL-2 | 1.0 | | 05.17.07 15:39 | 2.2375 | 112% |
| 14 | MRL-4 | 1.0 | | 05.17.07 16:01 | 4.1179 | 103% |
| 15 | LCS1 | 1.0 | | 05.17.07 16:24 | 25.5885 | 102% |
| 16 | LCS2 | 1.0 | | 05.17.07 16:46 | 25.4544 | 102% |
| 17 | 2705080517_1/5 ✓ | 5.0 | | 05.17.07 17:09 | | n.a. |
| 18 | 2705080399_1/5 | 5.0 | | 05.17.07 17:31 | 9.357 | n.a. |
| 19 | 2705080516_1/5 ✓ | 5.0 | | 05.17.07 17:53 | | n.a. |
| 20 | 2705100094 | 1.0 | | 05.17.07 18:16 | 3.6516 | |
| 21 | 2705100094MS | 1.0 | | 05.17.07 18:38 | 27.5923 | 23.9-95.8% |
| 22 | 2705100094MSD | 1.0 | | 05.17.07 19:01 | 27.9622 | 24.3-97.2% |
| 23 | 2705100095 | 1.0 | | 05.17.07 19:23 | 1.576 | n.a. |
| 24 | 2705080541_1/2 | 2.0 | | 05.17.07 19:45 | 55.7459 | |
| 25 | 2705080542_1/2 | 2.0 | | 05.17.07 20:08 | 61.4333 | |
| 26 | 2705080543_1/2 | 2.0 | | 05.17.07 20:30 | 62.3940 | |
| 27 | 2705080544_1/5 | 5.0 | | 05.17.07 20:53 | 87.0271 | |
| 28 | 2705100198 DNR | 1.0 | | 05.17.07 21:15 | 13.7682 | |
| 29 | CCV | 1.0 | | 05.17.07 21:37 | 24.7581 | 99.0% |
| 30 | 2705100545_1/5 | 5.0 | | 05.17.07 22:00 | 6.606 | n.a. |
| 31 | 2705100554_1/5 | 5.0 | | 05.17.07 22:22 | 14.1381 | |
| 32 | 2705110347 | 1.0 | | 05.17.07 22:45 | | n.a. |
| 33 | 2705110478_1/5-DNR | 5.0 | misinjection | 05.17.07 23:07 | | n.a. |
| 34 | 2705140336_1/2 | 2.0 | | 05.17.07 23:29 | | n.a. |
| 35 | 2705140337_1/2 | 2.0 | | 05.17.07 23:52 | 3.375 | n.a. |
| 36 | 2705140338_1/2 | 2.0 | | 05.18.07 00:14 | 2.243 | n.a. |
| 37 | 2705140339_1/2 | 2.0 | | 05.18.07 00:37 | 3.4563 | |
| 38 | 2705140469_1/500-DNR | 500.0 | | 05.18.07 00:59 | 216459.4800 | |
| 39 | 2705110476_1/500 | 500.0 | | 05.18.07 01:21 | 13576.6874 | |
| 40 | HCV | 1.0 | | 05.18.07 01:44 | 99.9584 | 100% |
| 41 | STOP | 1.0 | | 05.18.07 02:06 | | n.a. |

CONDUCTIVITY MW SOP REVISION 5
SM2510B

Analysis Date: 05-15-07
Analyst: Raja
Reviewed By: _____
LIMS Check By: _____

Time of Analysis Start: _____ End: _____

MRL 2umhos/cm: R# _____ exp of solution: _____
KCl Std 1412 R# 201556 exp of solution 08/07
TV = 1412 umho/cm @ 25°C for 0.0100M
Reading: 1396
Instrument: YSI Model 3200 SN:01A0504, Year Acquired 2001 New

Was QC Criteria Met: Y N
Was QIR Needed: Y N

| Run # | Sample Number | Sample ID | Client | Date Collected | Temp °C | pH | Scale (umho/mmho) | Result | | Comments |
|-------|---------------|--------------------|----------|----------------|---------|----|-------------------|------------|--------------------|--------------------------|
| | | | | | | | | Instrument | Reported (umho/cm) | |
| | Blk | Blank | | | | | 15 | 0.2365 | | |
| | STD | MRL 2umhos/cm | | | | | | N/A | | |
| | STD | KCl - 1000 mhos/cm | | | | | | 985 | | 1-3 --- ±50% of TV |
| 1 | 2705080399 | 8FE comp | Wormeyer | 05-05-07 | | | | 9173 | | 950-1050 --- ±5% of TV |
| 2 | 400 | Infl-comp | | ↓ | | | | 9378 | | |
| 3 | 516 | Effluent | | 05-07-07 | | | | 8109 | | |
| 4 | 517 | Influent | | | | | | 9096 | | |
| 5 | 541 | upgradient | | | | | | 2436 | | |
| 6 | 542 | L/W 6.05 | | | | | | 2224 | | |
| 7 | 543 | ↓ 5.5 | | | | | | 2469 | | |
| 8 | 544 | ↓ 0.55 | | | | | | 2383 | | |
| 9 | ↓ 826 | GW-11 | ↓ | ↓ | | | ms | 40.86 | | |
| 10 | 2705100094 | well 054 | Redlands | 5-10-07 | | | ms | 385 | | |
| | DUP | ↓ | ↓ | | | | | 391 | | RPD < 5% |
| 11 | 095 | Well 073 | ↓ | | | | | 336 | | |
| 12 | ↓ 198 | 592006 | WRD | ↓ | | | | 525 | | |
| 13 | 2705116347 | 591010 | ↓ | 5-11-07 | | | | 893 | | |
| 14 | 2705140336 | 120708A | ICUA | 5-14-07 | | | | 1527 | | |
| 15 | | | | | | | | | | |
| 16 | | | | | | | | | | |
| 17 | | | | | | | | | | |
| 18 | | | | | | | | | | |
| 19 | | | | | | | | | | |
| 20 | | | | | | | | | | |
| | DUP | 2705140336 | 120708A | ICUA | 5-14-07 | | ms | 1536 | | RPD < 5% |
| | STD | KCl - 10 mhos/cm | | | | | | N/A | | 8-12 --- RPD < 20% of TV |

$$\% \text{RPD} = \frac{|S1 - S2|}{(S1 + S2)/2} * 100$$

S1 = reading of 1st sample
S2 = reading of 2nd sample

ACK: W 15 May 07

CONDUCTIVITY MW SOP REVISION 5
SM2510B

Analysis Date: 5-17-07
Analyst: Raja
Reviewed By: _____
LIMS Check By: _____

Time of Analysis Start: _____ End: _____

MRL 2umhos/cm: R# _____ exp of solution: _____
KCl Std 1412 R# 201656 exp of solution 18/07
TV = 1412 umho/cm @ 25°C for 0.0100M
Reading: _____
Instrument: YSI Model 3200 SN:01A0504 Year Acquired 2001 New

Was QC Criteria Met: Y N
Was QIR Needed: Y N

| Run # | Sample Number | Sample ID | Client | Date Collected | Temp °C | pH | Scale (umho/mho) | Result | | Comments |
|-------|------------------------|-----------|---------|----------------|---------|----|------------------|------------|--------------------|--------------------------|
| | | | | | | | | Instrument | Reported (umho/cm) | |
| | Blank | | | | | | | | | |
| | STD MRL 2umhos/cm | | | | | | M | 0.5701 | | |
| | STD KCl - 1000 mhos/cm | | | | | | | N/A | | 1-3 --- ±50% of TV |
| 1 | 2705110468 | M-87 | Kermega | 05-10-07 | | | | 966 | | 950-1050 --- ±5% of TV |
| 2 | 469 | -83 | | | | | | 3839 | | |
| 3 | 470 | ARR-7 | | | | | | 4050 | | |
| 4 | 471 | PC-53 | | | | | | 6195 | | |
| 5 | 473 | MW-K5 | | | | | | 5085 | | |
| 6 | 474 | PC-103 | | | | | | 8073 | | |
| 7 | 476 | PC-98R | | | | | | 6599 | | |
| 8 | 478 | L-637 | | | | | | 7545 | | |
| 9 | 2705140837 | 1207088 | ISUA | 05-14-07 | | | | 9999 | | |
| 10 | 338 | 1207333 | | | | | | 1336 | | |
| DUP | ↓ | ↓ | | | | | | 824 | | |
| 11 | 339 | 1003663 | | | | | | 799 | | RPD < 5% |
| 12 | | | | | | | | 576 | | |
| 13 | | | | | | | | | | |
| 14 | | | | | | | | | | |
| 15 | | | | | | | | | | |
| 16 | | | | | | | | | | |
| 17 | | | | | | | | | | |
| 18 | | | | | | | | | | |
| 19 | | | | | | | | | | |
| 20 | | | | | | | | | | |
| DUP | 2705140339 | 1003663 | ISUA | 05-14-07 | | | M | 515 | | RPD < 5% |
| STD | KCl - 10 mhos/cm | | | | | | N/A | N/A | | 8-12 --- RPD < 20% of TV |

$$\% \text{ RPD} = \frac{|S1 - S2|}{(S1 + S2)/2} \cdot 100$$

S1 = reading of 1st sample
S2 = reading of 2nd sample

Act. on 17 May 07

Sequence: 051707-CLO4-IC11
Operator: raja

Page 1 of 2
Printed: 5/19/2007 4:34:21 PM

Title:
Datasource: Dionex_USPAS2SDIO2
Location: ICNIC11_CLO4\2007\MAY
Timebase: IC11
#Samples: 41

Created: 5/17/2007 11:09:43 AM by raja
Last Update: 5/18/2007 4:39:56 PM by raja

| No. | Name | Dil. Factor | Type | Comment | Status | Program |
|-----|----------------------|-------------|----------|--------------|-------------|------------------|
| 1 | wash | 1.0000 | Unknown | | Finished | Perchlorate-IC11 |
| 2 | autocal1 | 1.0000 | Standard | | Finished | Perchlorate-IC11 |
| 3 | autocal2 | 1.0000 | Standard | RAJA060913-2 | Finished | Perchlorate-IC11 |
| 4 | autocal3 | 1.0000 | Standard | RAJA060913-3 | Finished | Perchlorate-IC11 |
| 5 | autocal4 | 1.0000 | Standard | RAJA060913-4 | Finished | Perchlorate-IC11 |
| 6 | autocal5 | 1.0000 | Standard | RAJA060913-5 | Finished | Perchlorate-IC11 |
| 7 | autocal6 | 1.0000 | Standard | RAJA060913-6 | Finished | Perchlorate-IC11 |
| 8 | autocal7 | 1.0000 | Standard | RAJA060913-7 | Finished | Perchlorate-IC11 |
| 9 | wash | 1.0000 | Unknown | | Finished | Perchlorate-IC11 |
| 10 | QCS | 1.0000 | Unknown | | Finished | Perchlorate-IC11 |
| 11 | IPC | 1.0000 | Unknown | | Finished | Perchlorate-IC11 |
| 12 | MBLK | 1.0000 | Unknown | | Finished | Perchlorate-IC11 |
| 13 | MRL-2 | 1.0000 | Unknown | | Finished | Perchlorate-IC11 |
| 14 | MRL-4 | 1.0000 | Unknown | | Finished | Perchlorate-IC11 |
| 15 | LCS1 | 1.0000 | Unknown | | Finished | Perchlorate-IC11 |
| 16 | LCS2 | 1.0000 | Unknown | | Finished | Perchlorate-IC11 |
| 17 | 2705080517_1/5 | 5.0000 | Unknown | | Finished | Perchlorate-IC11 |
| 18 | 2705080399_1/5 | 5.0000 | Unknown | | Finished | Perchlorate-IC11 |
| 19 | 2705080516_1/5 | 5.0000 | Unknown | | Finished | Perchlorate-IC11 |
| 20 | 2705100094 | 1.0000 | Unknown | | Finished | Perchlorate-IC11 |
| 21 | 2705100094MS | 1.0000 | Unknown | | Finished | Perchlorate-IC11 |
| 22 | 2705100094MSD | 1.0000 | Unknown | | Finished | Perchlorate-IC11 |
| 23 | 2705100095 | 1.0000 | Unknown | | Finished | Perchlorate-IC11 |
| 24 | 2705080541_1/2 | 2.0000 | Unknown | | Finished | Perchlorate-IC11 |
| 25 | 2705080542_1/2 | 2.0000 | Unknown | | Finished | Perchlorate-IC11 |
| 26 | 2705080543_1/2 | 2.0000 | Unknown | | Finished | Perchlorate-IC11 |
| 27 | 2705080544_1/5 | 5.0000 | Unknown | | Finished | Perchlorate-IC11 |
| 28 | 2705100198 | 1.0000 | Unknown | | Finished | Perchlorate-IC11 |
| 29 | CCV | 1.0000 | Unknown | | Finished | Perchlorate-IC11 |
| 30 | 2705100545_1/5 | 5.0000 | Unknown | | Finished | Perchlorate-IC11 |
| 31 | 2705100554_1/5 | 5.0000 | Unknown | | Finished | Perchlorate-IC11 |
| 32 | 2705110347 | 1.0000 | Unknown | | Finished | Perchlorate-IC11 |
| 33 | 2705110478_1/5-DNR | 5.0000 | Unknown | misinjection | Finished | Perchlorate-IC11 |
| 34 | 2705140336_1/2 | 2.0000 | Unknown | | Finished | Perchlorate-IC11 |
| 35 | 2705140337_1/2 | 2.0000 | Unknown | | Finished | Perchlorate-IC11 |
| 36 | 2705140338_1/2 | 2.0000 | Unknown | | Finished | Perchlorate-IC11 |
| 37 | 2705140339_1/2 | 2.0000 | Unknown | | Finished | Perchlorate-IC11 |
| 38 | 2705140469_1/500-DNR | 500.0000 | Unknown | | Finished | Perchlorate-IC11 |
| 39 | 2705110476_1/500 | 500.0000 | Unknown | | Finished | Perchlorate-IC11 |
| 40 | HCV | 1.0000 | Unknown | | Finished | Perchlorate-IC11 |
| 41 | STOP | 1.0000 | Unknown | | Interrupted | IC11 Stop |

Sequence: 051707-CLO4-IC11
Operator: raja

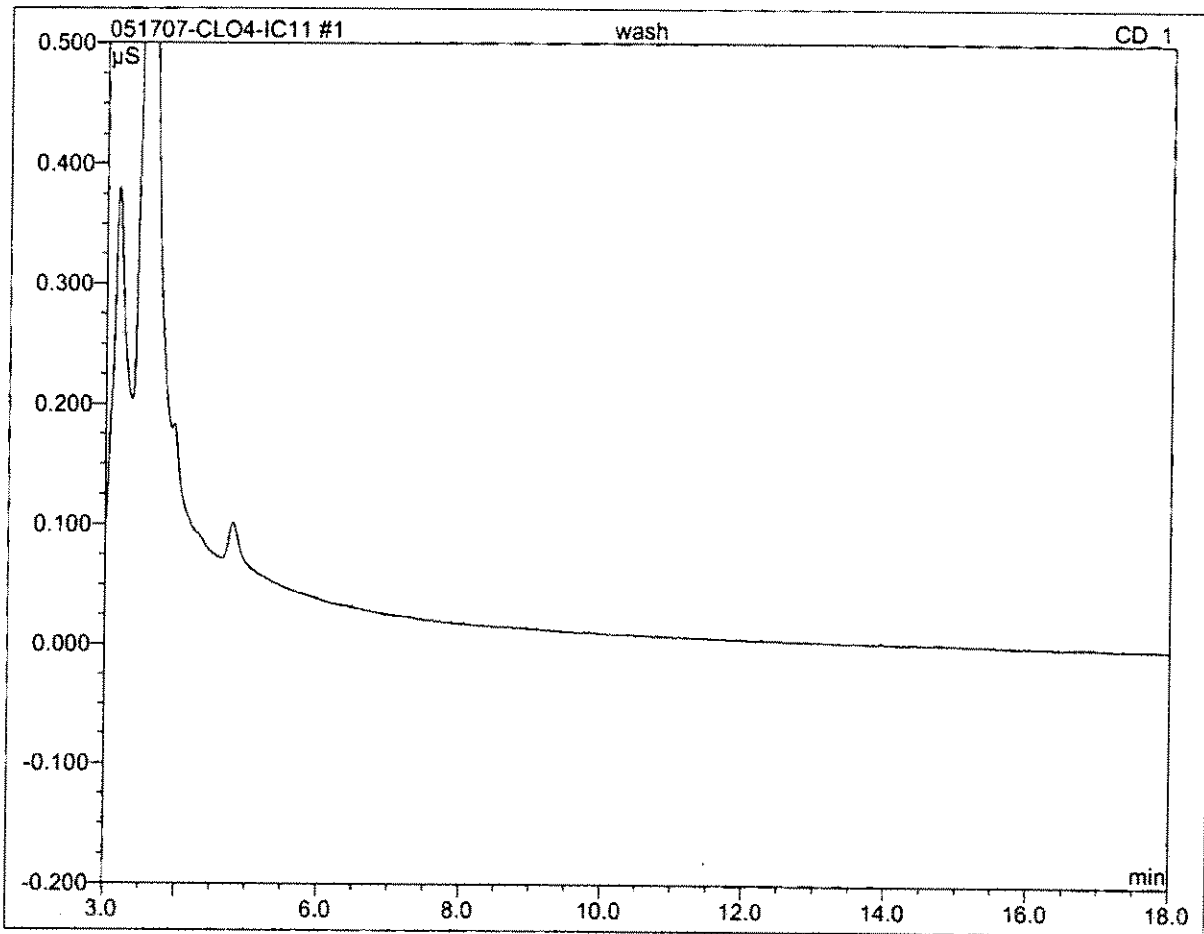
Page 2 of 2
Printed: 5/19/2007 4:34:22 PM

Title:
Datasource: Dionex_USPAS2SDIO2
Location: ICNIC11_CLO4\2007\MAY
Timebase: IC11
#Samples: 41

Created: 5/17/2007 11:09:43 AM by raja
Last Update: 5/18/2007 4:39:56 PM by raja

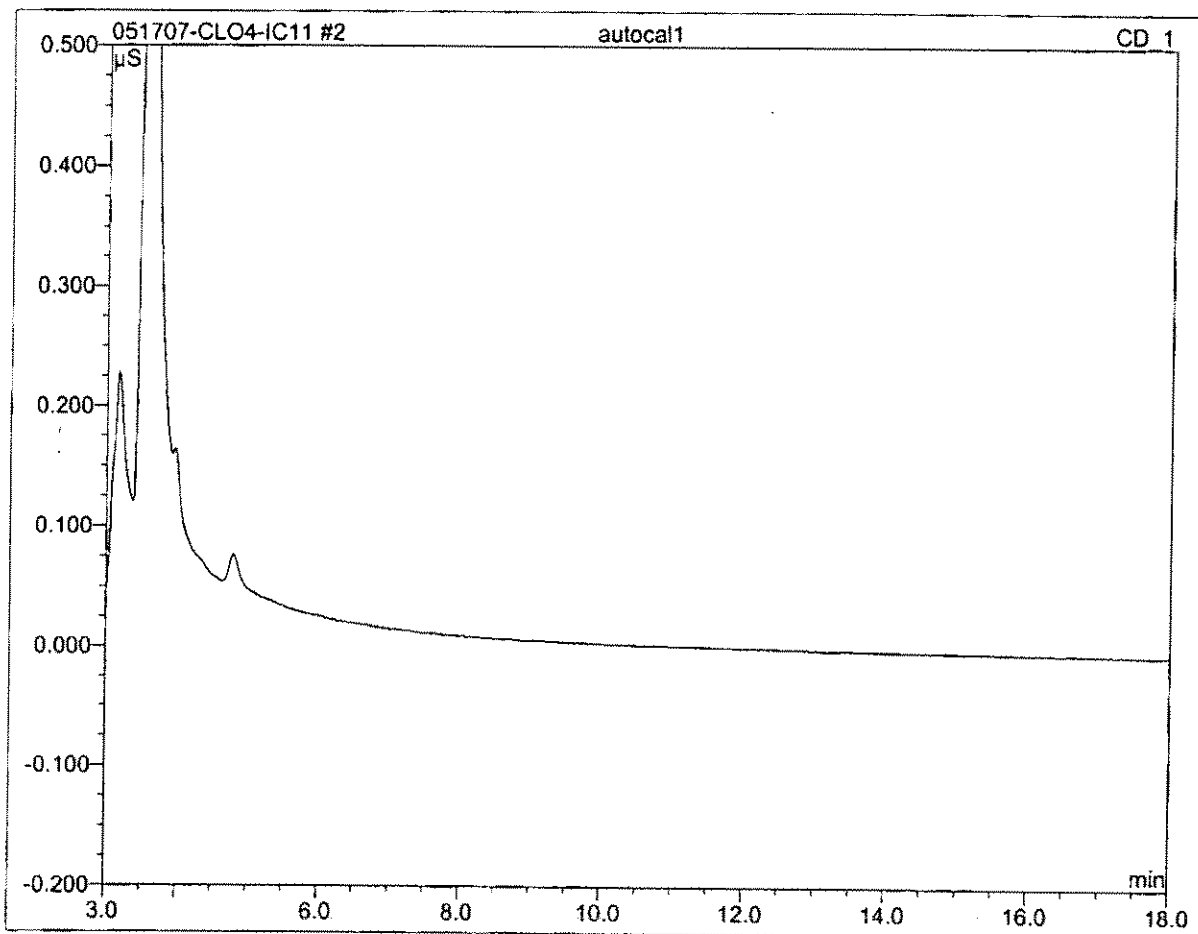
| No. | Name | Method | Inj. Date/Time | *Analyst |
|-----|----------------------|---------------|-----------------------|----------|
| 1 | wash | IC#4-CLO4-LOW | 5/17/2007 11:10:51 AM | Raja |
| 2 | autocal1 | IC#4-CLO4-LOW | 5/17/2007 11:33:14 AM | Raja |
| 3 | autocal2 | IC#4-CLO4-LOW | 5/17/2007 11:55:38 AM | Raja |
| 4 | autocal3 | IC#4-CLO4-LOW | 5/17/2007 12:18:02 PM | Raja |
| 5 | autocal4 | IC#4-CLO4-LOW | 5/17/2007 12:40:25 PM | Raja |
| 6 | autocal5 | IC#4-CLO4-LOW | 5/17/2007 1:02:49 PM | Raja |
| 7 | autocal6 | IC#4-CLO4-LOW | 5/17/2007 1:25:13 PM | Raja |
| 8 | autocal7 | IC#4-CLO4-LOW | 5/17/2007 1:47:37 PM | Raja |
| 9 | wash | IC#4-CLO4-LOW | 5/17/2007 2:10:00 PM | Raja |
| 10 | QCS | IC#4-CLO4-LOW | 5/17/2007 2:32:24 PM | Raja |
| 11 | IPC | IC#4-CLO4-LOW | 5/17/2007 2:54:48 PM | Raja |
| 12 | MBLK | IC#4-CLO4-LOW | 5/17/2007 3:17:11 PM | Raja |
| 13 | MRL-2 | IC#4-CLO4-LOW | 5/17/2007 3:39:35 PM | Raja |
| 14 | MRL-4 | IC#4-CLO4-LOW | 5/17/2007 4:01:59 PM | Raja |
| 15 | LCS1 | IC#4-CLO4-LOW | 5/17/2007 4:24:23 PM | Raja |
| 16 | LCS2 | IC#4-CLO4-LOW | 5/17/2007 4:46:46 PM | Raja |
| 17 | 2705080517_1/5 | IC#4-CLO4-LOW | 5/17/2007 5:09:10 PM | Raja |
| 18 | 2705080399_1/5 | IC#4-CLO4-LOW | 5/17/2007 5:31:34 PM | Raja |
| 19 | 2705080516_1/5 | IC#4-CLO4-LOW | 5/17/2007 5:53:57 PM | Raja |
| 20 | 2705100094 | IC#4-CLO4-LOW | 5/17/2007 6:16:21 PM | Raja |
| 21 | 2705100094MS | IC#4-CLO4-LOW | 5/17/2007 6:38:45 PM | Raja |
| 22 | 2705100094MSD | IC#4-CLO4-LOW | 5/17/2007 7:01:10 PM | Raja |
| 23 | 2705100095 | IC#4-CLO4-LOW | 5/17/2007 7:23:33 PM | Raja |
| 24 | 2705080541_1/2 | IC#4-CLO4-LOW | 5/17/2007 7:45:57 PM | Raja |
| 25 | 2705080542_1/2 | IC#4-CLO4-LOW | 5/17/2007 8:08:21 PM | Raja |
| 26 | 2705080543_1/2 | IC#4-CLO4-LOW | 5/17/2007 8:30:45 PM | Raja |
| 27 | 2705080544_1/5 | IC#4-CLO4-LOW | 5/17/2007 8:53:09 PM | Raja |
| 28 | 2705100198 | IC#4-CLO4-LOW | 5/17/2007 9:15:32 PM | Raja |
| 29 | CCV | IC#4-CLO4-LOW | 5/17/2007 9:37:56 PM | Raja |
| 30 | 2705100545_1/5 | IC#4-CLO4-LOW | 5/17/2007 10:00:20 PM | Raja |
| 31 | 2705100554_1/5 | IC#4-CLO4-LOW | 5/17/2007 10:22:44 PM | Raja |
| 32 | 2705110347 | IC#4-CLO4-LOW | 5/17/2007 10:45:07 PM | Raja |
| 33 | 2705110478_1/5-DNR | IC#4-CLO4-LOW | 5/17/2007 11:07:31 PM | Raja |
| 34 | 2705140336_1/2 | IC#4-CLO4-LOW | 5/17/2007 11:29:55 PM | Raja |
| 35 | 2705140337_1/2 | IC#4-CLO4-LOW | 5/17/2007 11:52:19 PM | Raja |
| 36 | 2705140338_1/2 | IC#4-CLO4-LOW | 5/18/2007 12:14:43 AM | Raja |
| 37 | 2705140339_1/2 | IC#4-CLO4-LOW | 5/18/2007 12:37:06 AM | Raja |
| 38 | 2705140469_1/500-DNR | IC#4-CLO4-LOW | 5/18/2007 12:59:30 AM | Raja |
| 39 | 2705110476_1/500 | IC#4-CLO4-LOW | 5/18/2007 1:21:54 AM | Raja |
| 40 | HCV | IC#4-CLO4-LOW | 5/18/2007 1:44:18 AM | Raja |
| 41 | STOP | IC#4-CLO4-LOW | 5/18/2007 2:06:41 AM | Raja |

| | | | |
|-----------------|------------------|------------------|------------------|
| 1 wash | | | |
| Sample Name: | wash | Channel: | CD_1 |
| Sample Type: | unknown | Control Program: | Perchlorate-IC11 |
| Recording Time: | 05/17/2007 11:10 | Quantif. Method: | IC#4-CLO4-LOW |
| Analyst: | Raja | Dilution Factor: | 1.0000 |



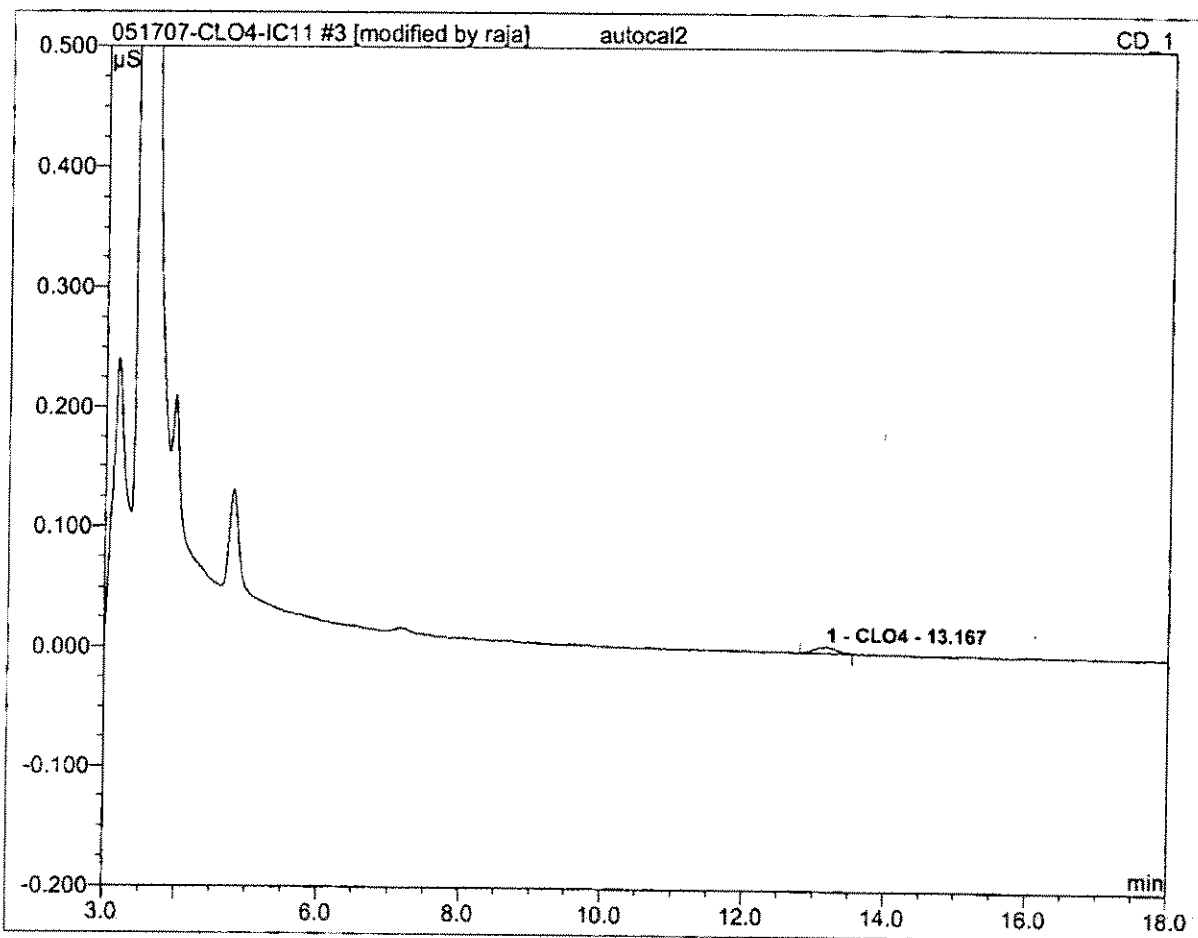
| No. | Ret.Time min | Peak Name | Height μS | Area μS*min | Rel.Area % | Amount | Type |
|--------|-----------------|-----------|--------------|----------------|---------------|--------|------|
| Total: | | | 0.000 | 0.000 | 0.00 | 0.000 | |

| | | | |
|-------------------|------------------|------------------|------------------|
| 2 autocal1 | | | |
| Sample Name: | autocal1 | Channel: | CD_1 |
| Sample Type: | standard | Control Program: | Perchlorate-IC11 |
| Recording Time: | 05/17/2007 11:33 | Quantif. Method: | IC#4-CLO4-LOW |
| Analyst: | Raja | Dilution Factor: | 1.0000 |



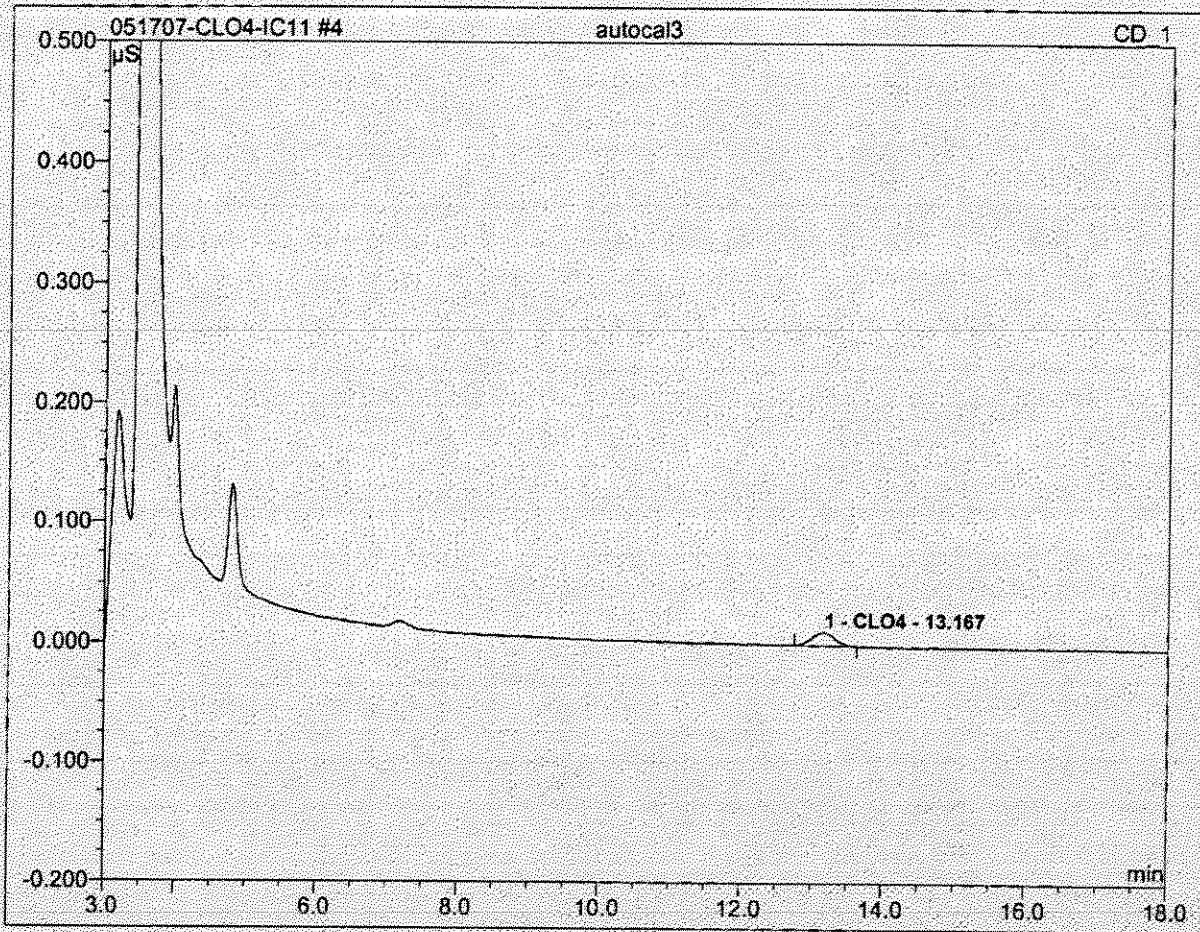
| No. | Ret.Time min | Peak Name | Height μS | Area μS*min | Rel.Area % | Amount | Type |
|---------------|-----------------|-----------|--------------|----------------|---------------|--------|------|
| Total: | | | 0.000 | 0.000 | 0.00 | 0.000 | |

| | | | |
|---------------------|------------------|------------------|------------------|
| 3 autocal2 | | | |
| RAJA060913-2 | | | |
| Sample Name: | autocal2 | Channel: | CD_1 |
| Sample Type: | standard | Control Program: | Perchlorate-IC11 |
| Recording Time: | 05/17/2007 11:55 | Quantif. Method: | IC#4-CLO4-LOW |
| Analyst: | Raja | Dilution Factor: | 1.0000 |



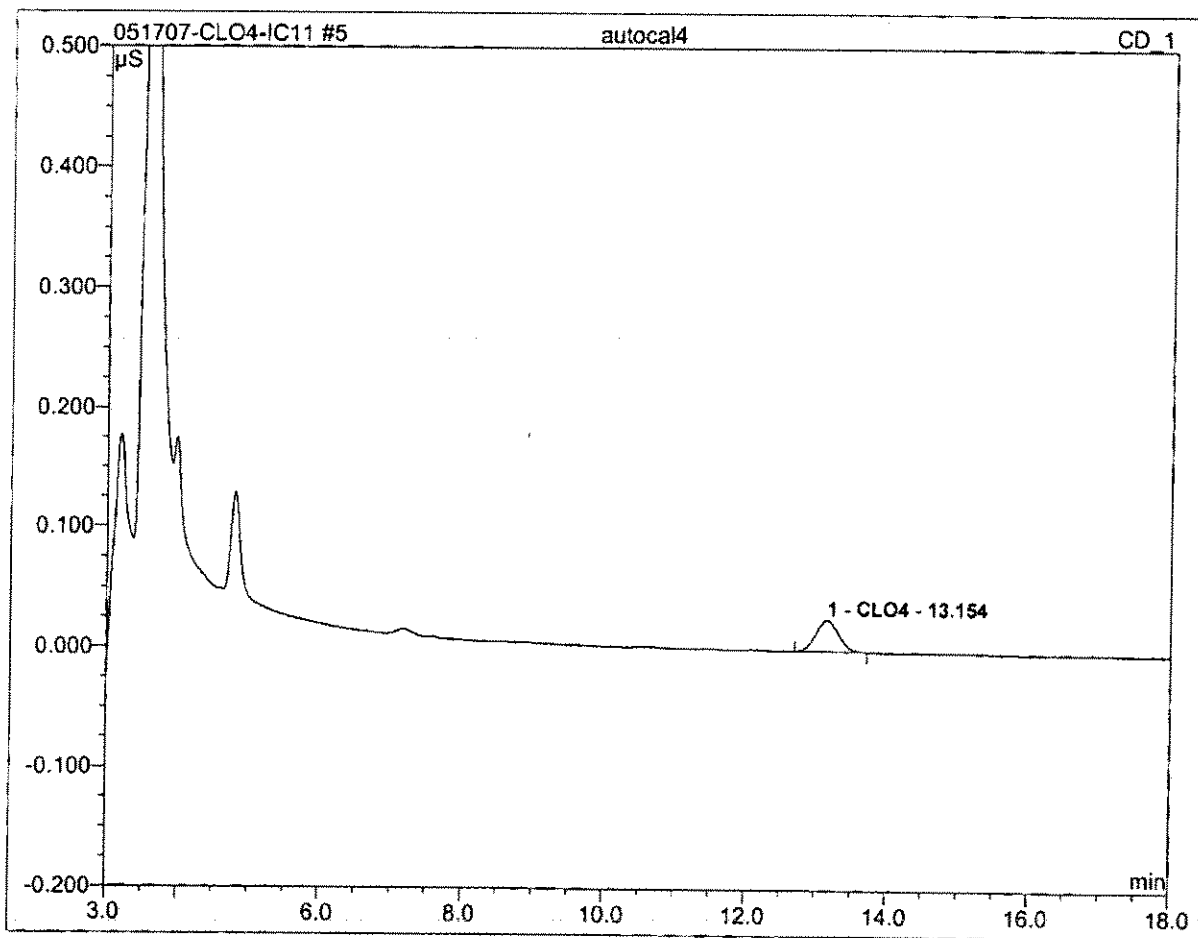
| No. | Ret.Time min | Peak Name | Height μS | Area μS*min | Rel.Area % | Amount | Type |
|---------------|-----------------|-----------|--------------|----------------|---------------|--------|------|
| 1 | 13.17 | CLO4 | 0.005 | 0.002 | 100.00 | 1.919 | BMB* |
| Total: | | | 0.005 | 0.002 | 100.00 | 1.919 | |

| | | | |
|---------------------|------------------|------------------|------------------|
| 4 autocal3 | | | |
| RAJA060913-3 | | | |
| Sample Name: | autocal3 | Channel: | CD_1 |
| Sample Type: | standard | Control Program: | Perchlorate-IC11 |
| Recording Time: | 05/17/2007 12:18 | Quantif. Method: | IC#4-CLO4-LOW |
| Analyst: | Raja | Dilution Factor: | 1.0000 |



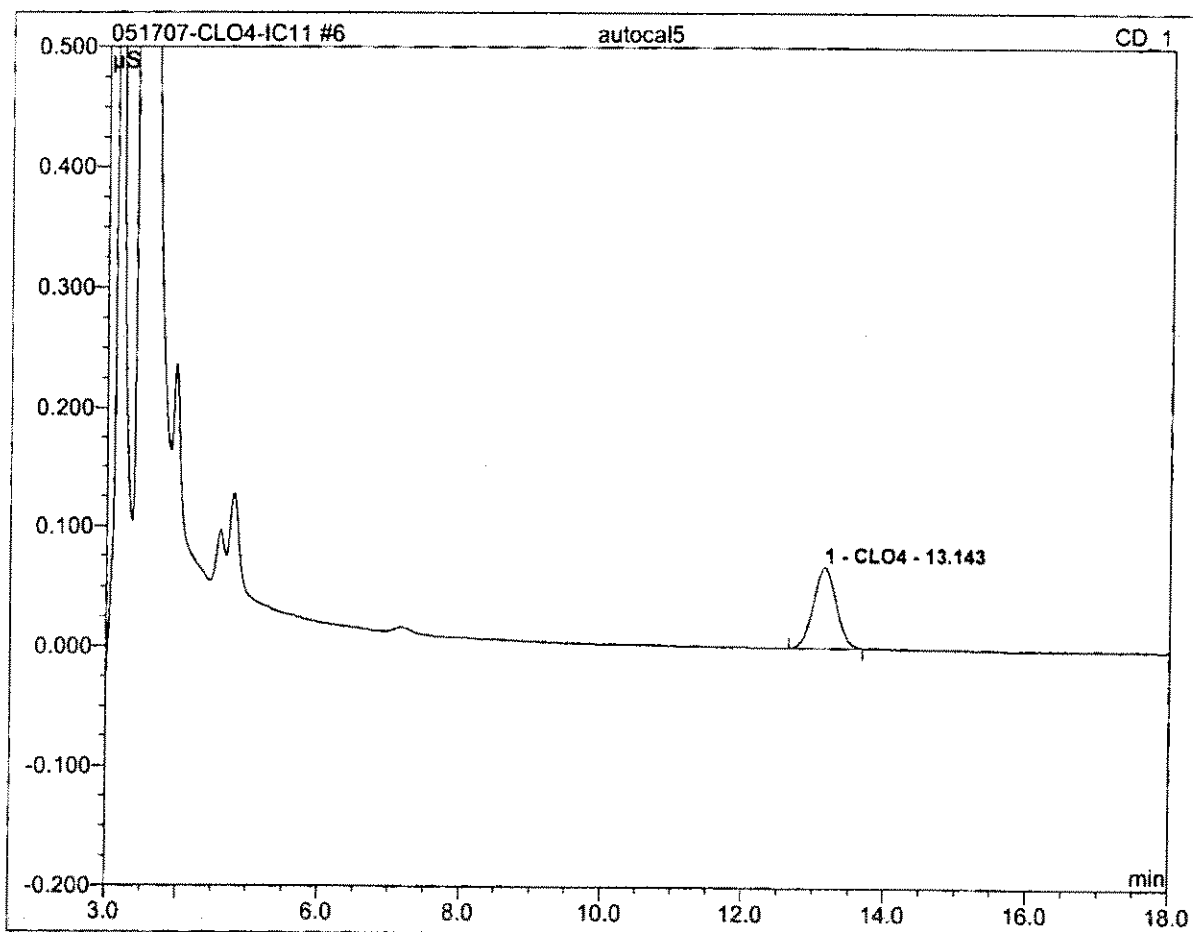
| No. | Ret. Time min | Peak Name | Height μS | Area μS*min | Rel.Area % | Amount | Type |
|---------------|------------------|-----------|--------------|----------------|---------------|--------|------|
| 1 | 13.17 | CLO4 | 0.011 | 0.004 | 100.00 | 4.071 | BMB |
| Total: | | | 0.011 | 0.004 | 100.00 | 4.071 | |

| | | | |
|---------------------|------------------|------------------|------------------|
| 5 autocal4 | | | |
| RAJA060913-4 | | | |
| Sample Name: | autocal4 | Channel: | CD_1 |
| Sample Type: | standard | Control Program: | Perchlorate-IC11 |
| Recording Time: | 05/17/2007 12:40 | Quantif. Method: | IC#4-CLO4-LOW |
| Analyst: | Raja | Dilution Factor: | 1.0000 |



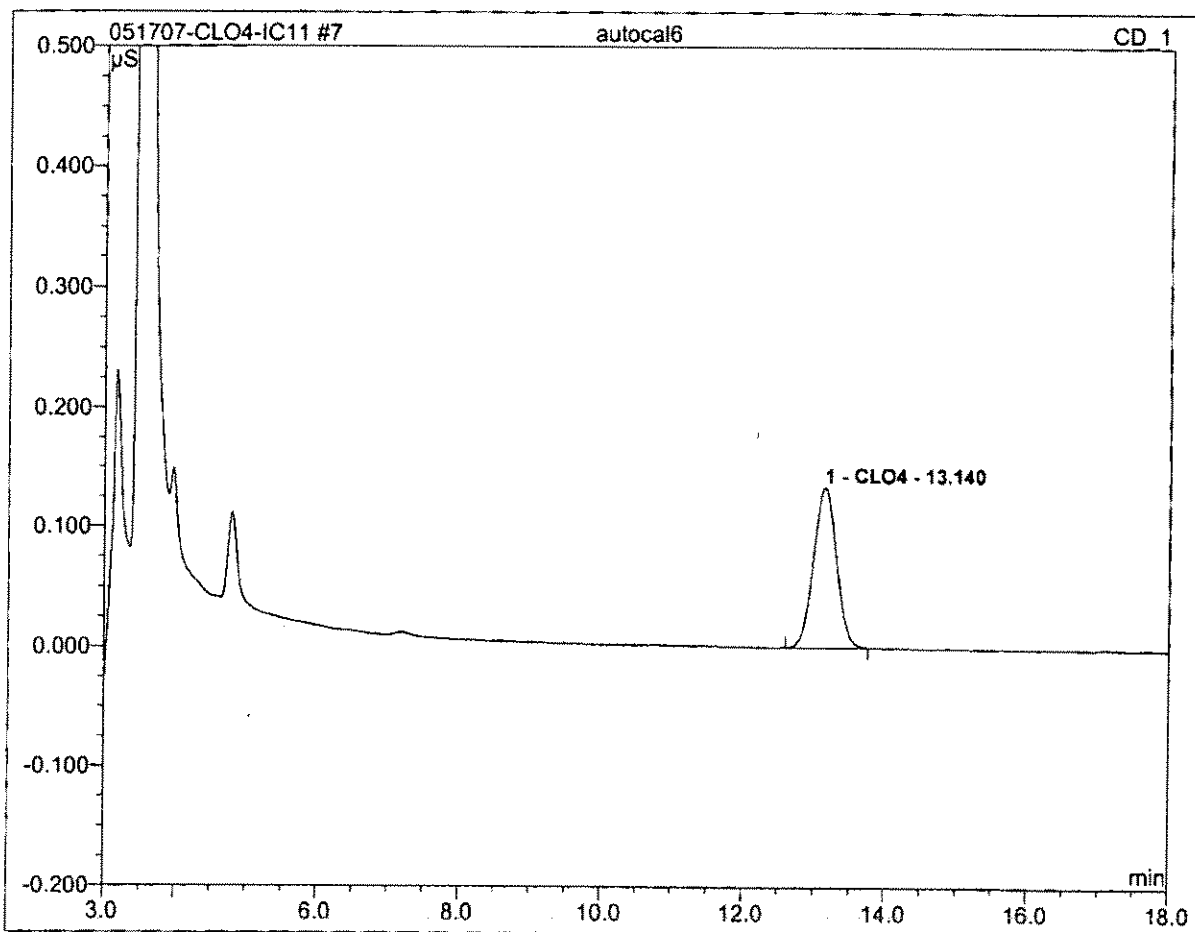
| No. | Ret.Time min | Peak Name | Height μS | Area μS*min | Rel.Area % | Amount | Type |
|---------------|-----------------|-----------|--------------|----------------|---------------|--------|------|
| 1 | 13.15 | CLO4 | 0.026 | 0.010 | 100.00 | 9.904 | BMB |
| Total: | | | 0.026 | 0.010 | 100.00 | 9.904 | |

| | | | |
|---------------------|------------------|------------------|------------------|
| 6 autocal5 | | | |
| RAJA060913-5 | | | |
| Sample Name: | autocal5 | Channel: | CD_1 |
| Sample Type: | standard | Control Program: | Perchlorate-IC11 |
| Recording Time: | 05/17/2007 13:02 | Quantif. Method: | IC#4-CLO4-LOW |
| Analyst: | Raja | Dilution Factor: | 1.0000 |



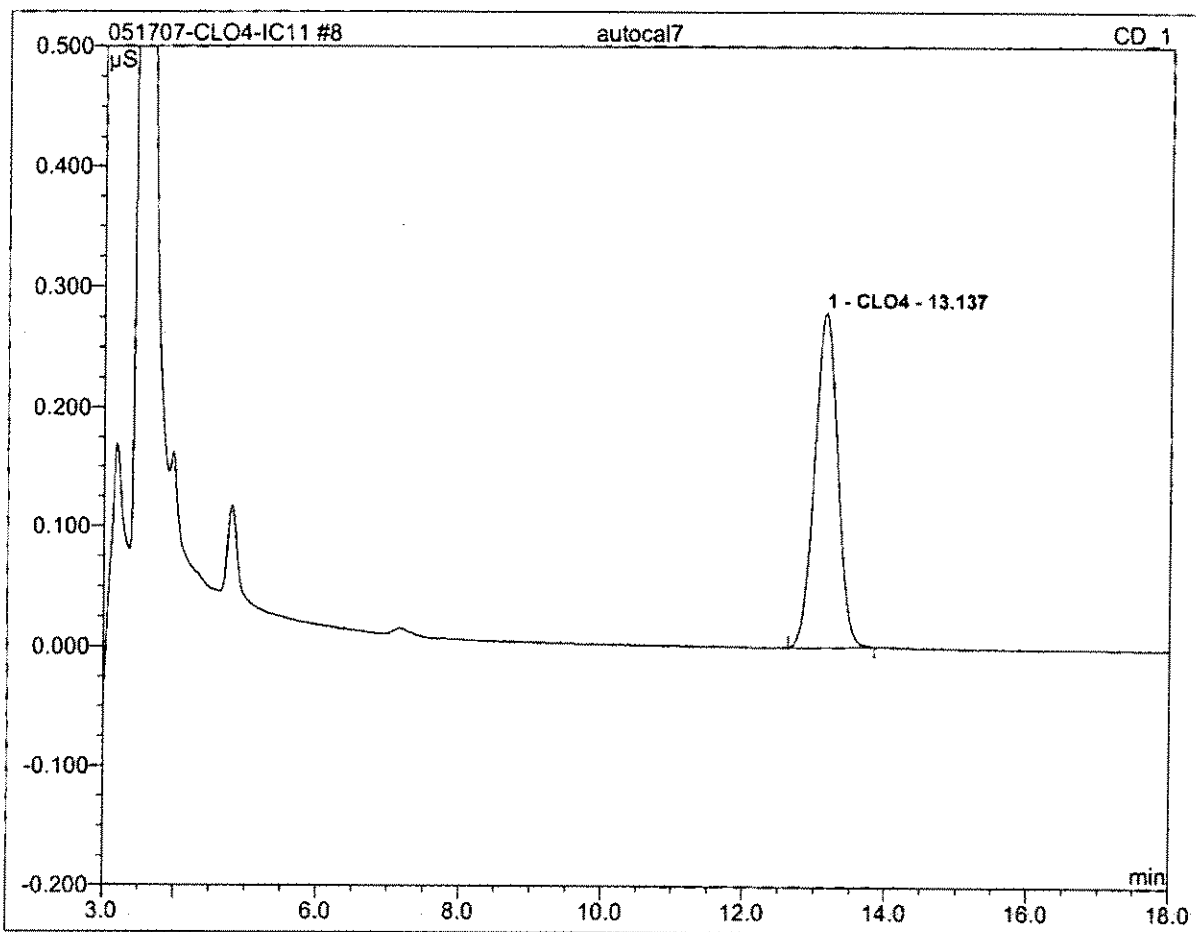
| No. | Ret.Time min | Peak Name | Height µS | Area µS*min | Rel.Area % | Amount | Type |
|---------------|-----------------|-----------|--------------|----------------|---------------|--------|------|
| 1 | 13.14 | CLO4 | 0.067 | 0.025 | 100.00 | 25.433 | BMB |
| Total: | | | 0.067 | 0.025 | 100.00 | 25.433 | |

| | | | |
|---------------------|------------------|------------------|------------------|
| 7 autocal6 | | | |
| RAJA060913-6 | | | |
| Sample Name: | autocal6 | Channel: | CD_1 |
| Sample Type: | standard | Control Program: | Perchlorate-IC11 |
| Recording Time: | 05/17/2007 13:25 | Quantif. Method: | IC#4-CLO4-LOW |
| Analyst: | Raja | Dilution Factor: | 1.0000 |



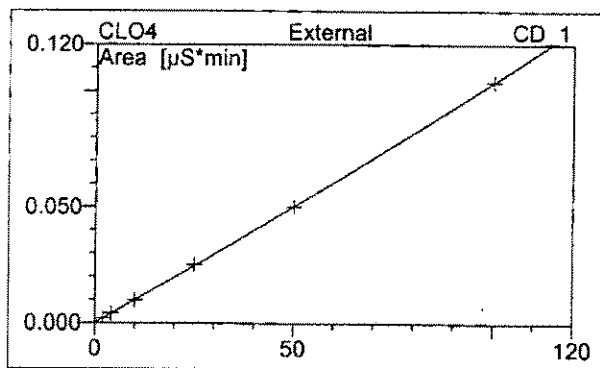
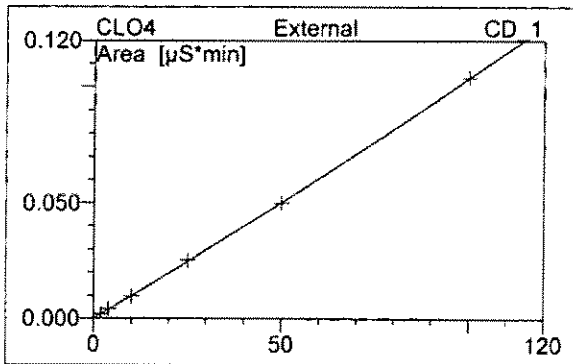
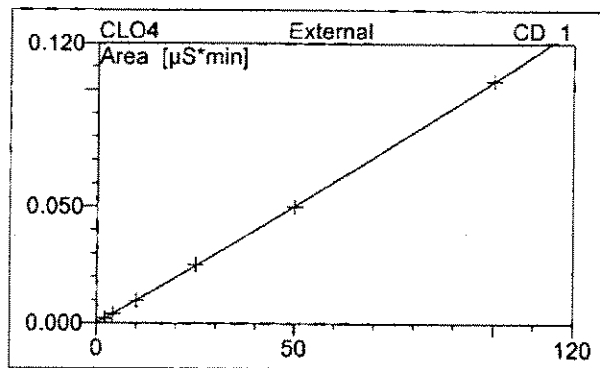
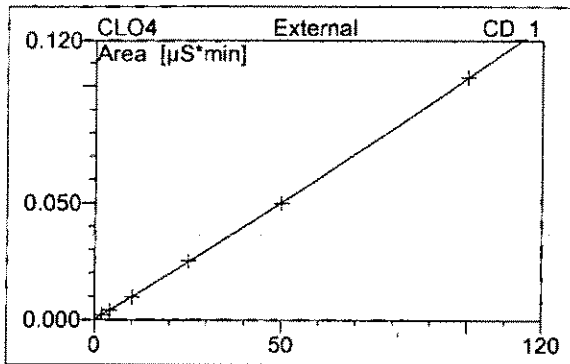
| No. | Ret.Time min | Peak Name | Height μS | Area μS*min | Rel.Area % | Amount | Type |
|---------------|-----------------|-----------|--------------|----------------|---------------|--------|------|
| 1 | 13.14 | CLO4 | 0.133 | 0.050 | 100.00 | 49.714 | BMB |
| Total: | | | 0.133 | 0.050 | 100.00 | 49.714 | |

| | | | |
|---------------------|------------------|------------------|------------------|
| 8 autocal7 | | | |
| RAJA060913-7 | | | |
| Sample Name: | autocal7 | Channel: | CD_1 |
| Sample Type: | standard | Control Program: | Perchlorate-IC11 |
| Recording Time: | 05/17/2007 13:47 | Quantif. Method: | IC#4-CLO4-LOW |
| Analyst: | Raja | Dilution Factor: | 1.0000 |



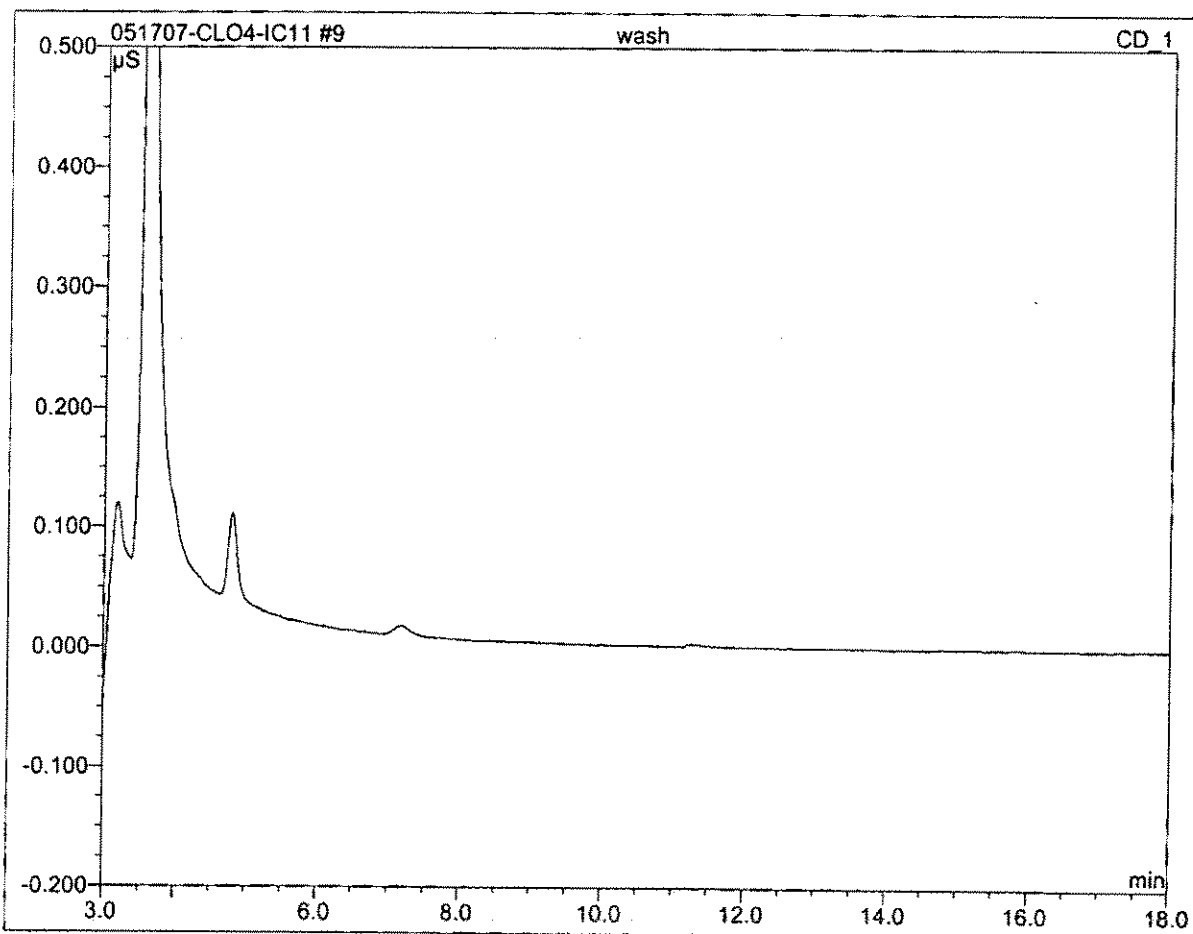
| No. | Ret.Time min | Peak Name | Height μS | Area μS*min | Rel.Area % | Amount | Type |
|---------------|-----------------|-----------|--------------|----------------|---------------|---------|------|
| 1 | 13.14 | CLO4 | 0.279 | 0.104 | 100.00 | 100.043 | BMB |
| Total: | | | 0.279 | 0.104 | 100.00 | 100.043 | |

| | | | |
|---------------------|------------------|-------------------|--------|
| 8 autocal7 | | | |
| RAJA060913-7 | | | |
| Sample Name: | autocal7 | Injection Volume: | 20.0 |
| Vial Number: | 109 | Channel: | CD_1 |
| Sample Type: | standard | Wavelength: | n.a. |
| Control Program: | Perchlorate-IC11 | Bandwidth: | n.a. |
| Quantif. Method: | IC#4-CLO4-LOW | Dilution Factor: | 1.0000 |
| Recording Time: | 5/17/2007 13:47 | Sample Weight: | 1.0000 |
| Run Time (min): | 20.00 | Sample Amount: | 1.0000 |



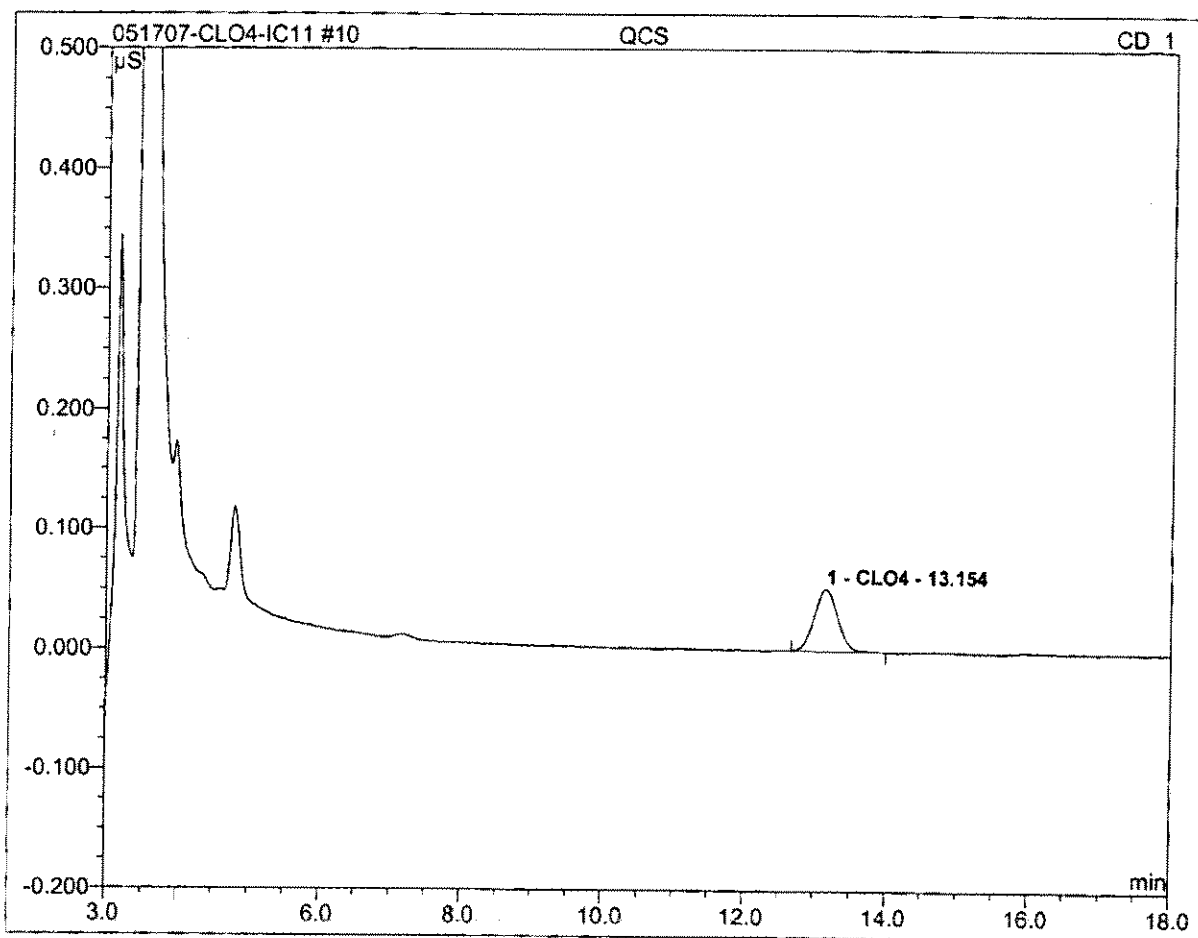
| No. | Ret.Time min | Peak Name | Cal.Type | Points | Corr.Coeff. % | Offset | Slope | Curve |
|-----------------|-----------------|-----------|----------|--------|------------------|--------|--------|--------|
| 1 | 13.14 | CLO4 | 0QOff | 6 | 99.9809 | 0.0001 | 0.0010 | 0.0000 |
| Average: | | | | | 99.9809 | 0.0001 | 0.0010 | 0.0000 |

| | | | |
|-----------------|------------------|------------------|------------------|
| 9 wash | | | |
| Sample Name: | wash | Channel: | CD_1 |
| Sample Type: | unknown | Control Program: | Perchlorate-IC11 |
| Recording Time: | 05/17/2007 14:10 | Quantif. Method: | IC#4-CLO4-LOW |
| Analyst: | Raja | Dilution Factor: | 1.0000 |



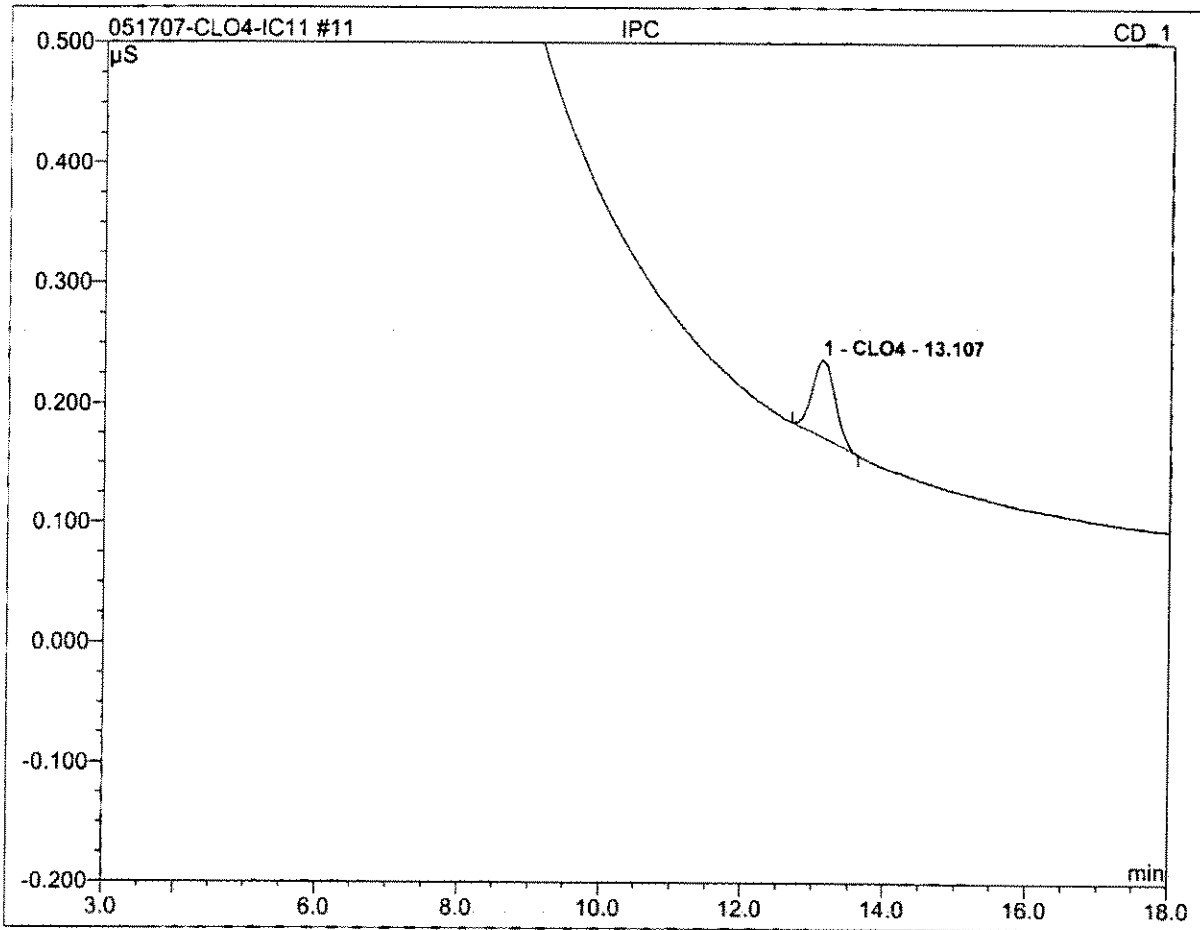
| No. | Ret.Time min | Peak Name | Height µS | Area µS*min | Rel.Area % | Amount | Type |
|---------------|-----------------|-----------|--------------|----------------|---------------|--------|------|
| Total: | | | 0.000 | 0.000 | 0.00 | 0.000 | |

| | | | |
|-----------------|------------------|------------------|------------------|
| 10 QCS | | | |
| Sample Name: | QCS | Channel: | CD_1 |
| Sample Type: | unknown | Control Program: | Perchlorate-IC11 |
| Recording Time: | 05/17/2007 14:32 | Quantif. Method: | IC#4-CLO4-LOW |
| Analyst: | Raja | Dilution Factor: | 1.0000 |



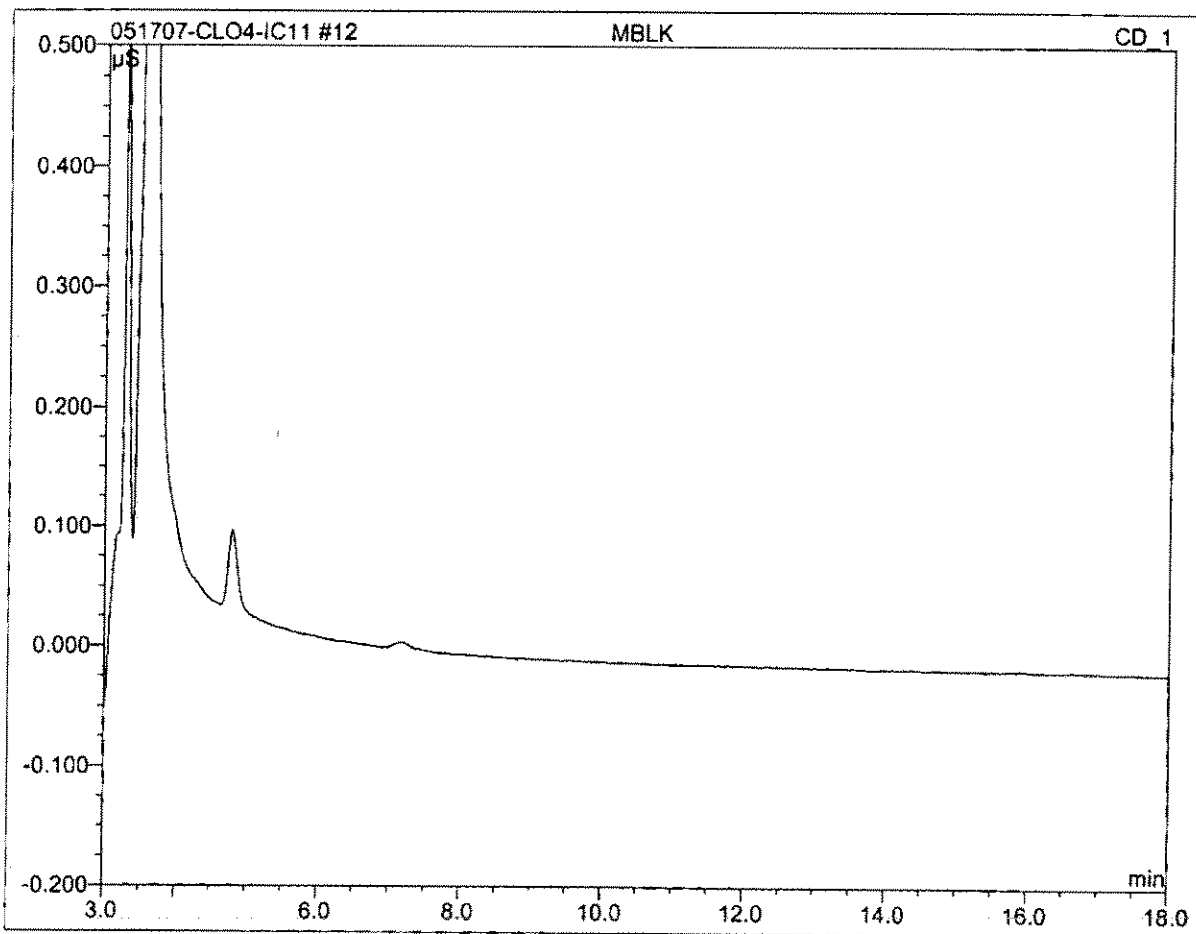
| No. | Ret.Time min | Peak Name | Height μS | Area μS*min | Rel.Area % | Amount | Type |
|---------------|-----------------|-----------|--------------|----------------|---------------|--------|------|
| 1 | 13.15 | CLO4 | 0.052 | 0.020 | 100.00 | 20.218 | BMB |
| Total: | | | 0.052 | 0.020 | 100.00 | 20.218 | |

| | | | |
|-----------------|------------------|------------------|------------------|
| 11 IPC | | | |
| Sample Name: | IPC | Channel: | CD_1 |
| Sample Type: | unknown | Control Program: | Perchlorate-IC11 |
| Recording Time: | 05/17/2007 14:54 | Quantif. Method: | IC#4-CLO4-LOW |
| Analyst: | Raja | Dilution Factor: | 1.0000 |



| No. | Ret.Time min | Peak Name | Height μS | Area μS*min | Rel.Area % | Amount | Type |
|---------------|-----------------|-----------|--------------|----------------|---------------|--------|------|
| 1 | 13.11 | CLO4 | 0.065 | 0.024 | 100.00 | 24.657 | BMB |
| Total: | | | 0.065 | 0.024 | 100.00 | 24.657 | |

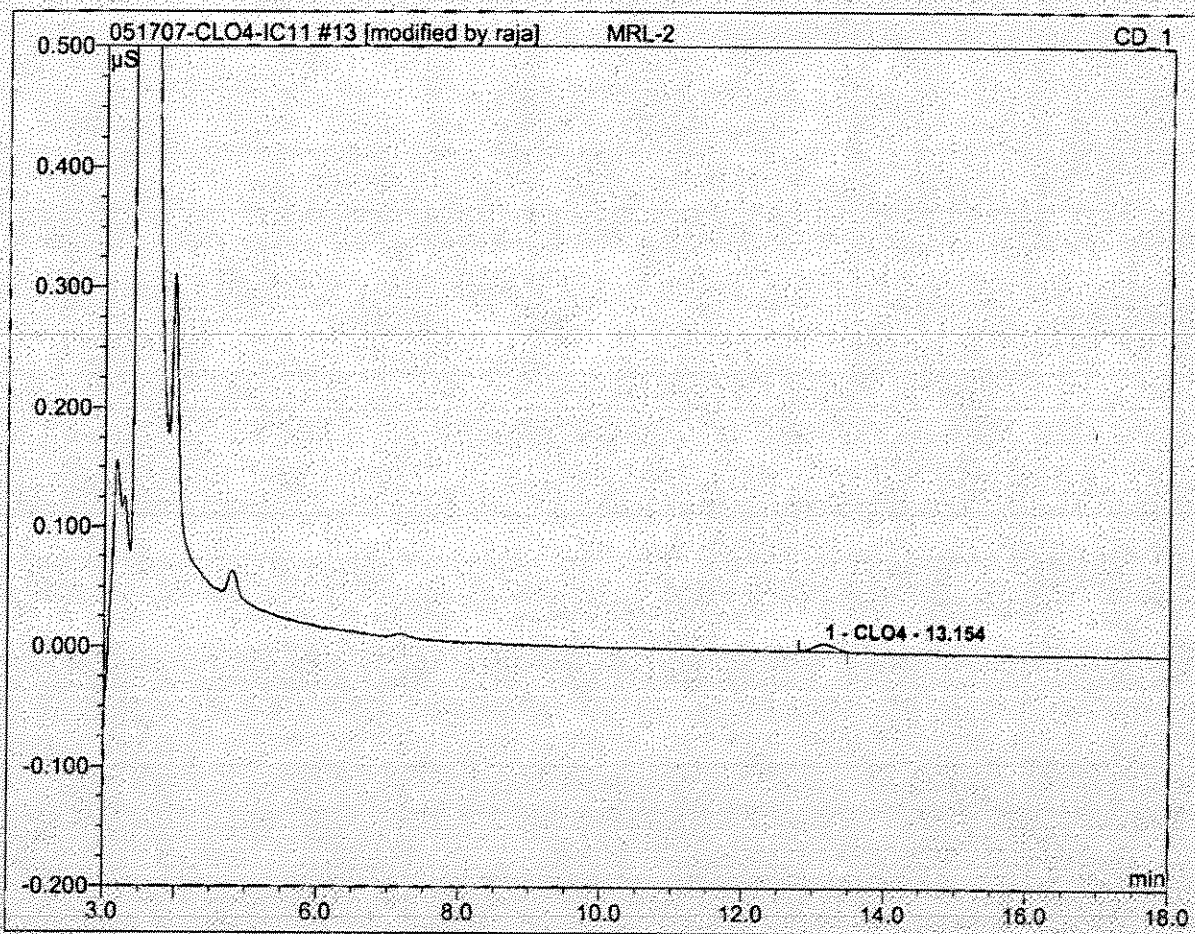
| | | | |
|-----------------|------------------|------------------|------------------|
| 12 MBLK | | | |
| Sample Name: | MBLK | Channel: | CD_1 |
| Sample Type: | unknown | Control Program: | Perchlorate-IC11 |
| Recording Time: | 05/17/2007 15:17 | Quantif. Method: | IC#4-CLO4-LOW |
| Analyst: | Raja | Dilution Factor: | 1.0000 |



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

13 MRL-2

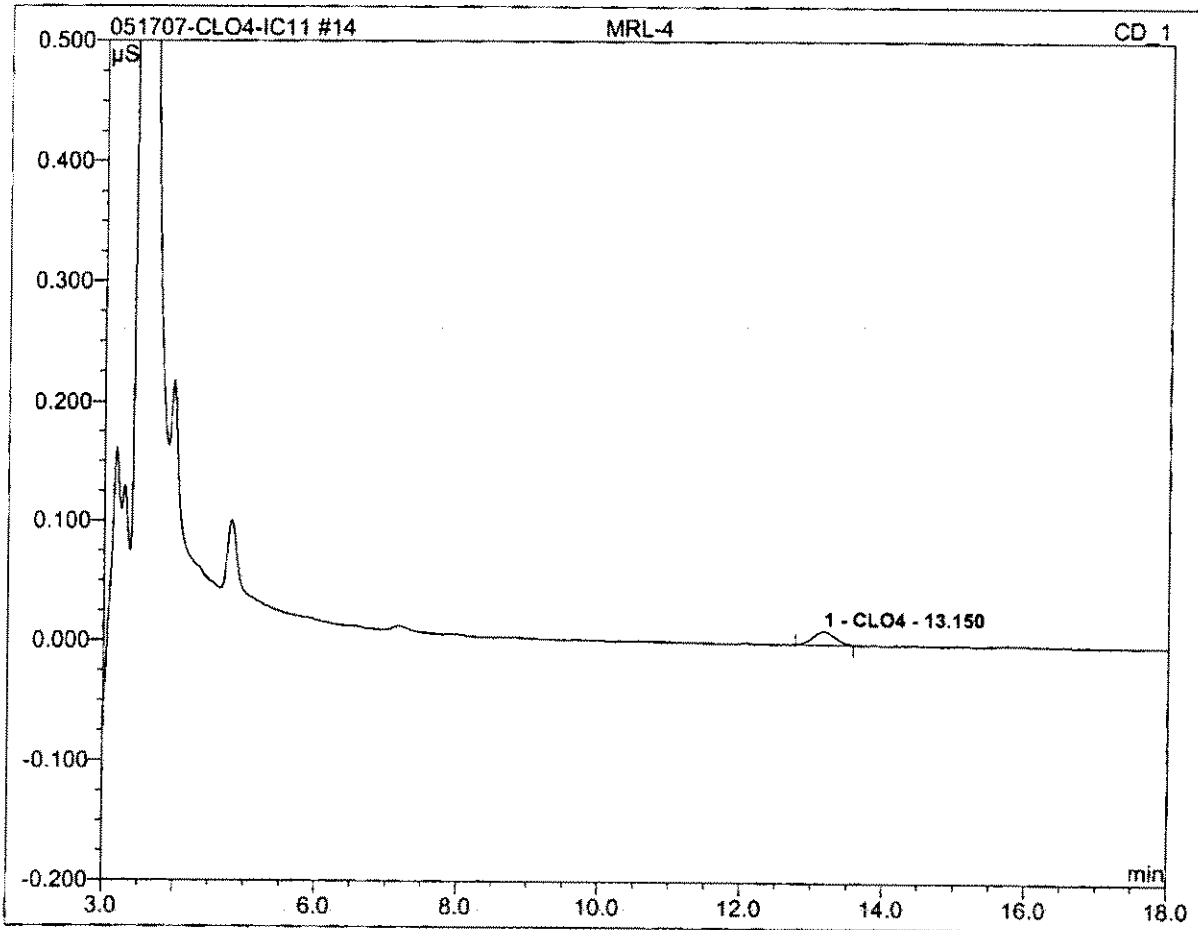
| | | | |
|-----------------|------------------|------------------|------------------|
| Sample Name: | MRL-2 | Channel: | CD_1 |
| Sample Type: | unknown | Control Program: | Perchlorate-IC11 |
| Recording Time: | 05/17/2007 15:39 | Quantif. Method: | IC#4-CLO4-LOW |
| Analyst: | Raja | Dilution Factor: | 1.0000 |



| No. | Ret.Time min | Peak Name | Height μS | Area $\mu\text{S}\cdot\text{min}$ | Rel.Area % | Amount | Type |
|---------------|-----------------|-----------|-------------------------|--------------------------------------|---------------|--------|------|
| 1 | 13.15 | CLO4 | 0.007 | 0.002 | 100.00 | 2.238 | BMB* |
| Total: | | | 0.007 | 0.002 | 100.00 | 2.238 | |

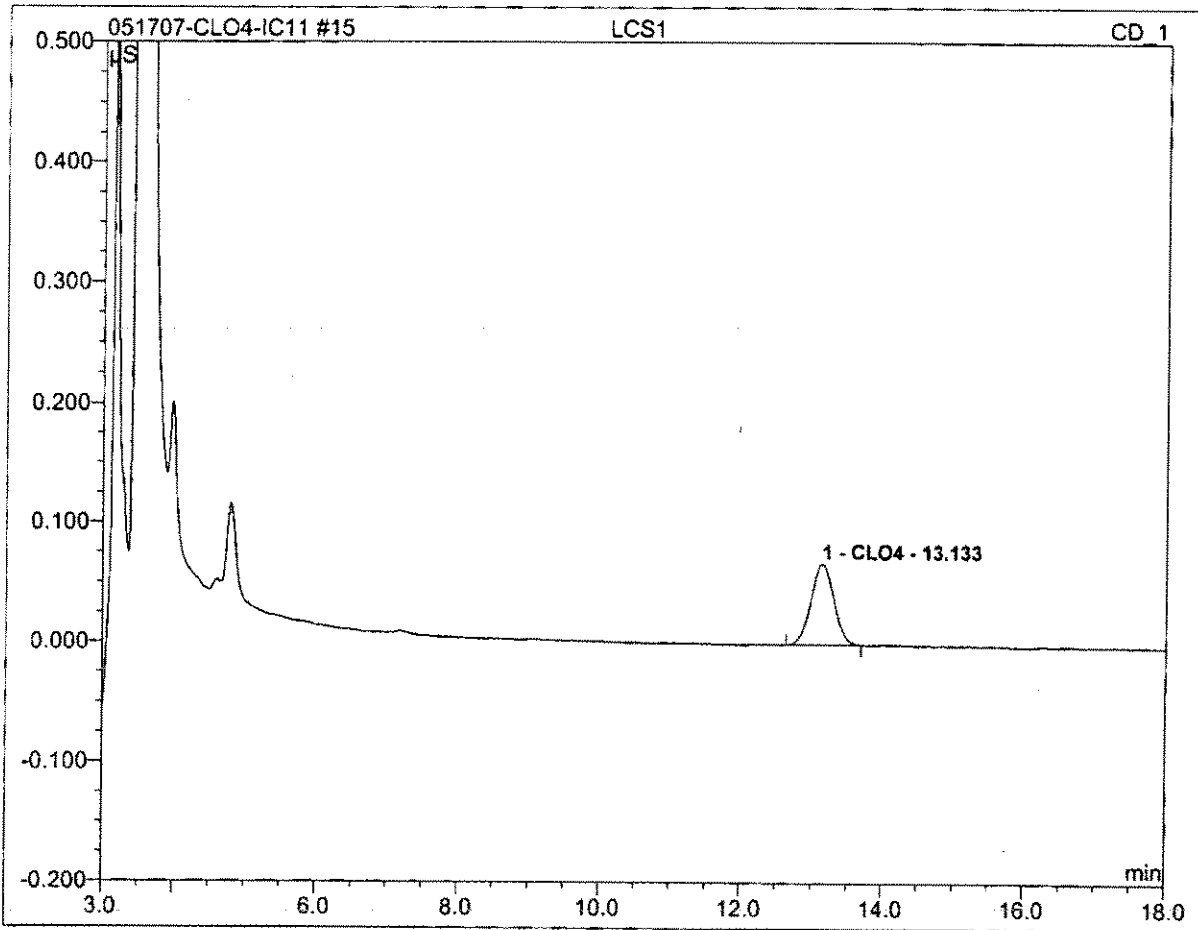
14 MRL-4

| | | | |
|-----------------|------------------|------------------|------------------|
| Sample Name: | MRL-4 | Channel: | CD_1 |
| Sample Type: | unknown | Control Program: | Perchlorate-IC11 |
| Recording Time: | 05/17/2007 16:01 | Quantif. Method: | IC#4-CLO4-LOW |
| Analyst: | Raja | Dilution Factor: | 1.0000 |



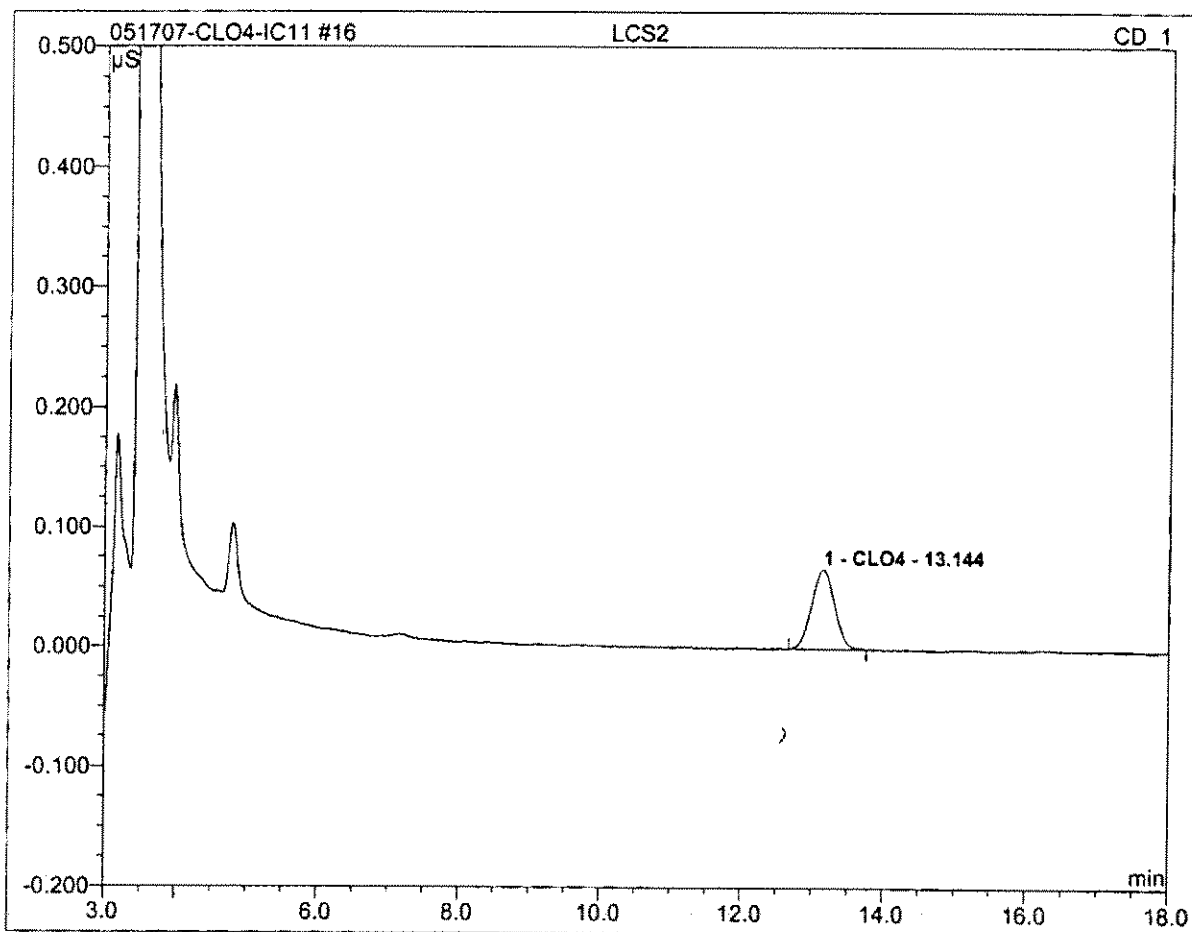
| No. | Ret.Time min | Peak Name | Height μS | Area μS*min | Rel.Area % | Amount | Type |
|---------------|-----------------|-----------|--------------|----------------|---------------|--------|------|
| 1 | 13.15 | CLO4 | 0.011 | 0.004 | 100.00 | 4.118 | BMB |
| Total: | | | 0.011 | 0.004 | 100.00 | 4.118 | |

| | | | |
|-----------------|------------------|------------------|------------------|
| 15 LCS1 | | | |
| Sample Name: | LCS1 | Channel: | CD_1 |
| Sample Type: | unknown | Control Program: | Perchlorate-IC11 |
| Recording Time: | 05/17/2007 16:24 | Quantif. Method: | IC#4-CLO4-LOW |
| Analyst: | Raja | Dilution Factor: | 1.0000 |



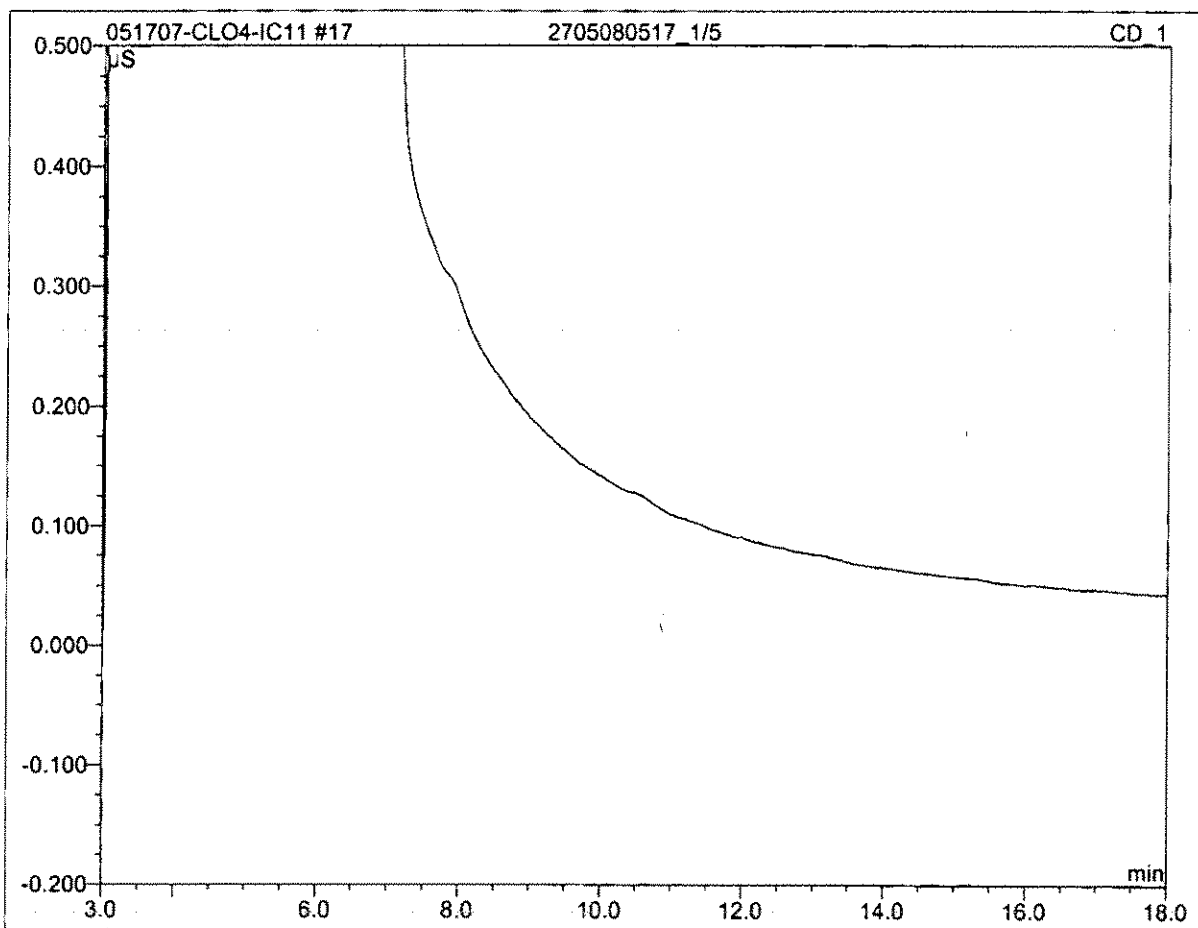
| No. | Ret.Time min | Peak Name | Height μS | Area μS*min | Rel.Area % | Amount | Type |
|---------------|-----------------|-----------|--------------|----------------|---------------|--------|------|
| 1 | 13.13 | CLO4 | 0.068 | 0.025 | 100.00 | 25.589 | BMB |
| Total: | | | 0.068 | 0.025 | 100.00 | 25.589 | |

| | | | |
|-----------------|------------------|------------------|------------------|
| 16 LCS2 | | | |
| Sample Name: | LCS2 | Channel: | CD_1 |
| Sample Type: | unknown | Control Program: | Perchlorate-IC11 |
| Recording Time: | 05/17/2007 16:46 | Quantif. Method: | IC#4-CLO4-LOW |
| Analyst: | Raja | Dilution Factor: | 1.0000 |



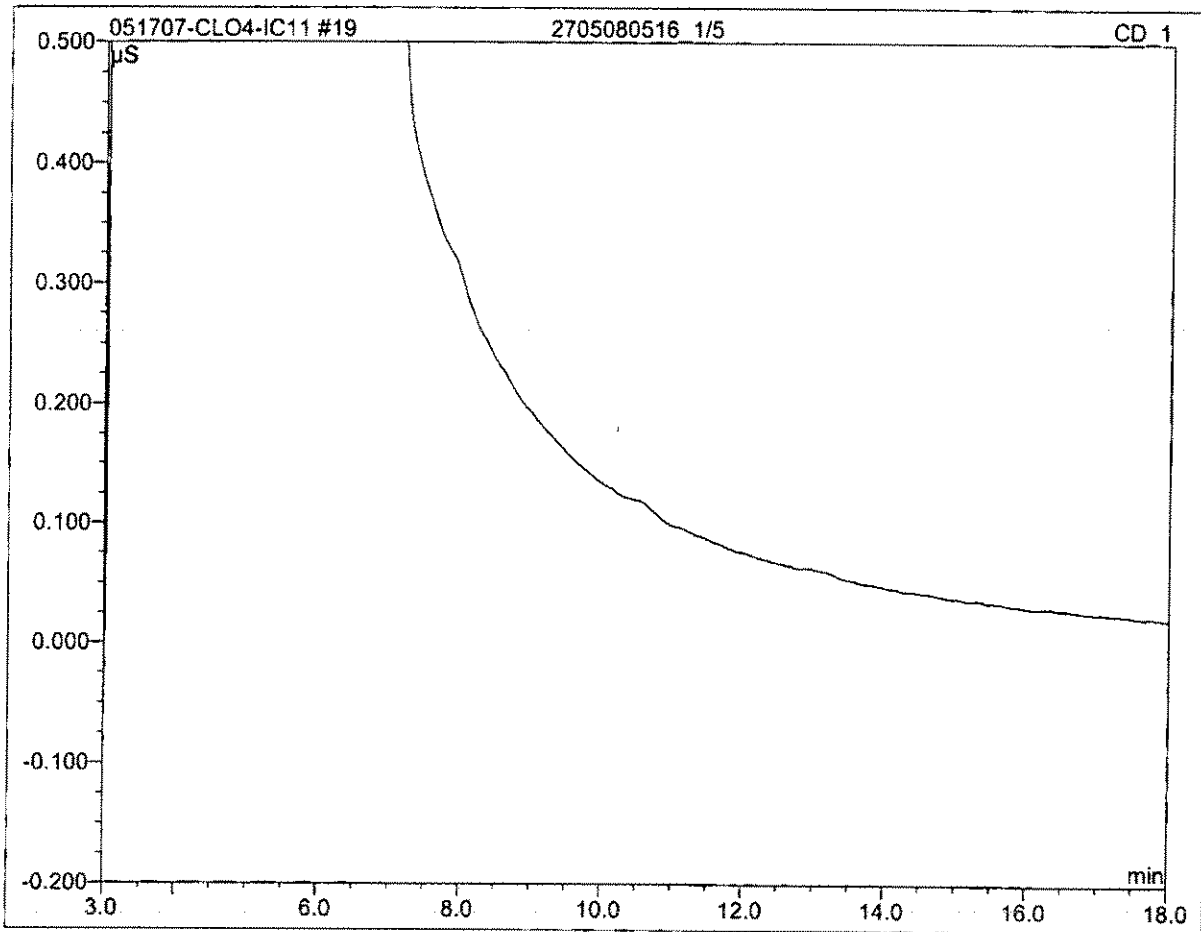
| No. | Ret.Time min | Peak Name | Height µS | Area µS*min | Rel.Area % | Amount | Type |
|---------------|-----------------|-----------|--------------|----------------|---------------|--------|------|
| 1 | 13.14 | CLO4 | 0.067 | 0.025 | 100.00 | 25.454 | BMB |
| Total: | | | 0.067 | 0.025 | 100.00 | 25.454 | |

| | | | |
|--------------------------|------------------|------------------|------------------|
| 17 2705080517_1/5 | | | |
| Sample Name: | 2705080517_1/5 | Channel: | CD_1 |
| Sample Type: | unknown | Control Program: | Perchlorate-IC11 |
| Recording Time: | 05/17/2007 17:09 | Quantif. Method: | IC#4-CLO4-LOW |
| Analyst: | Raja | Dilution Factor: | 5.0000 |



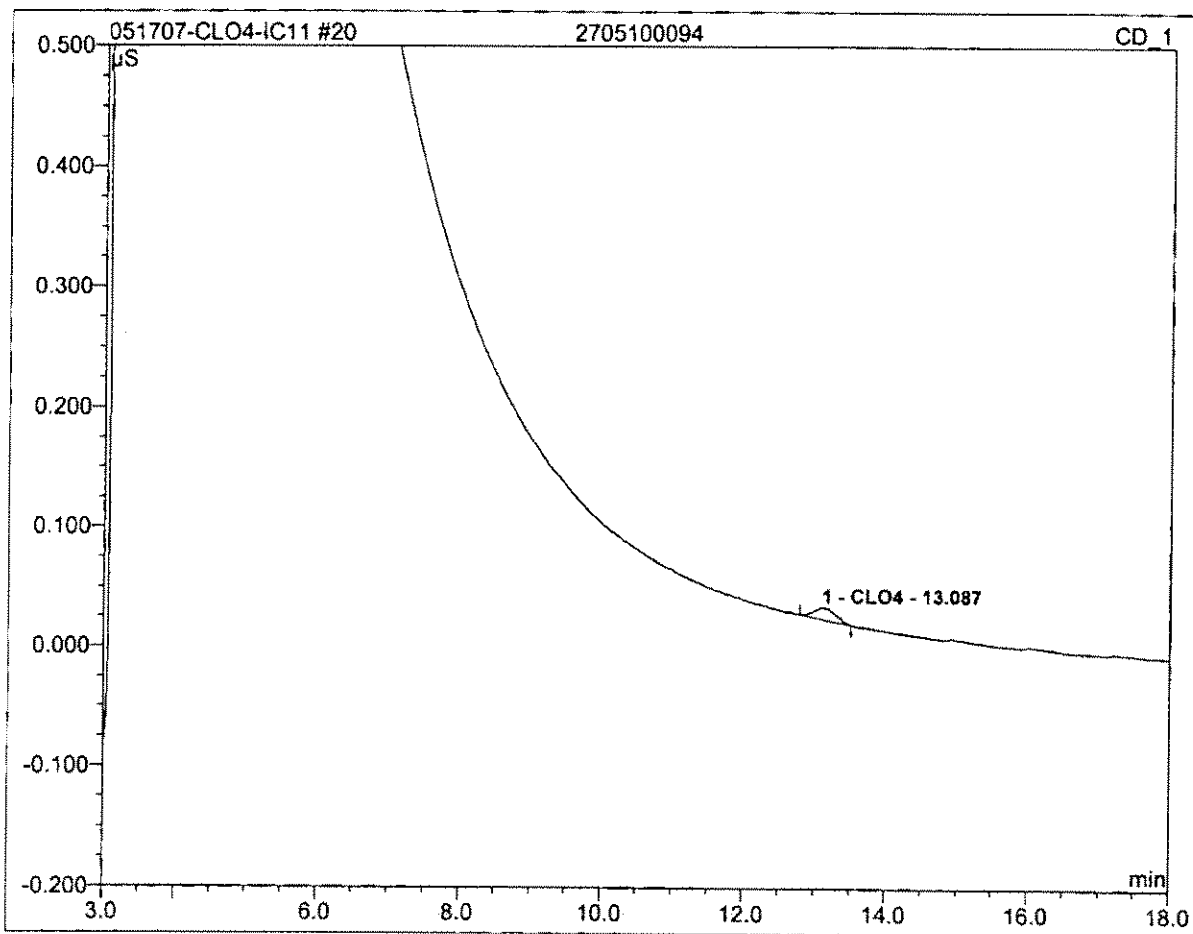
| No. | Ret.Time min | Peak Name | Height µS | Area µS*min | Rel.Area % | Amount | Type |
|--------|-----------------|-----------|--------------|----------------|---------------|--------|------|
| Total: | | | 0.000 | 0.000 | 0.00 | 0.000 | |

| | | | |
|--------------------------|------------------|------------------|------------------|
| 19 2705080516_1/5 | | | |
| Sample Name: | 2705080516_1/5 | Channel: | CD_1 |
| Sample Type: | unknown | Control Program: | Perchlorate-IC11 |
| Recording Time: | 05/17/2007 17:53 | Quantif. Method: | IC#4-CLO4-LOW |
| Analyst: | Raja | Dilution Factor: | 5.0000 |



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

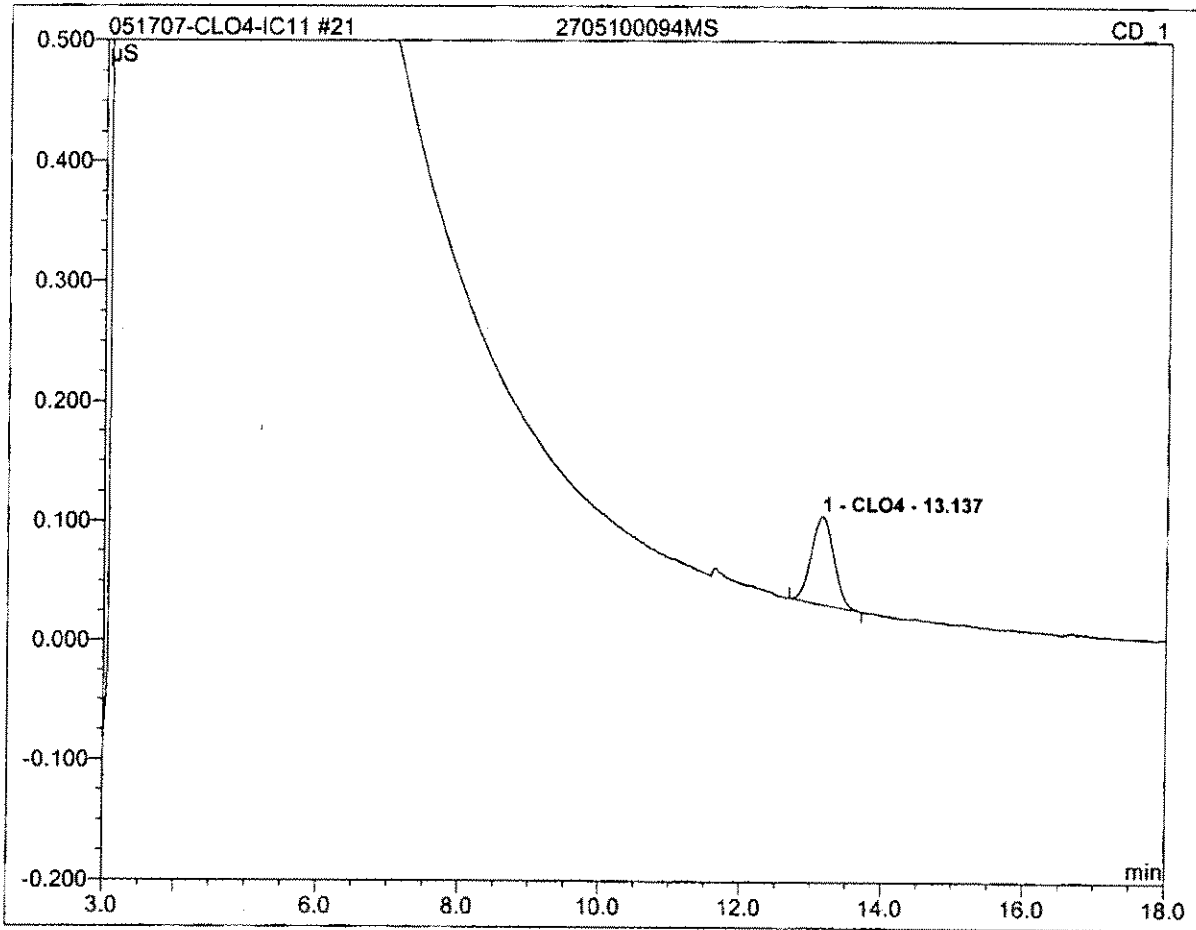
| | | | |
|----------------------|------------------|------------------|------------------|
| 20 2705100094 | | | |
| Sample Name: | 2705100094 | Channel: | CD_1 |
| Sample Type: | unknown | Control Program: | Perchlorate-IC11 |
| Recording Time: | 05/17/2007 18:16 | Quantif. Method: | IC#4-CLO4-LOW |
| Analyst: | Raja | Dilution Factor: | 1.0000 |



| No. | Ret.Time min | Peak Name | Height µS | Area µS*min | Rel.Area % | Amount | Type |
|---------------|-----------------|-----------|--------------|----------------|---------------|--------|------|
| 1 | 13.09 | CLO4 | 0.010 | 0.004 | 100.00 | 3.652 | BMB |
| Total: | | | 0.010 | 0.004 | 100.00 | 3.652 | |

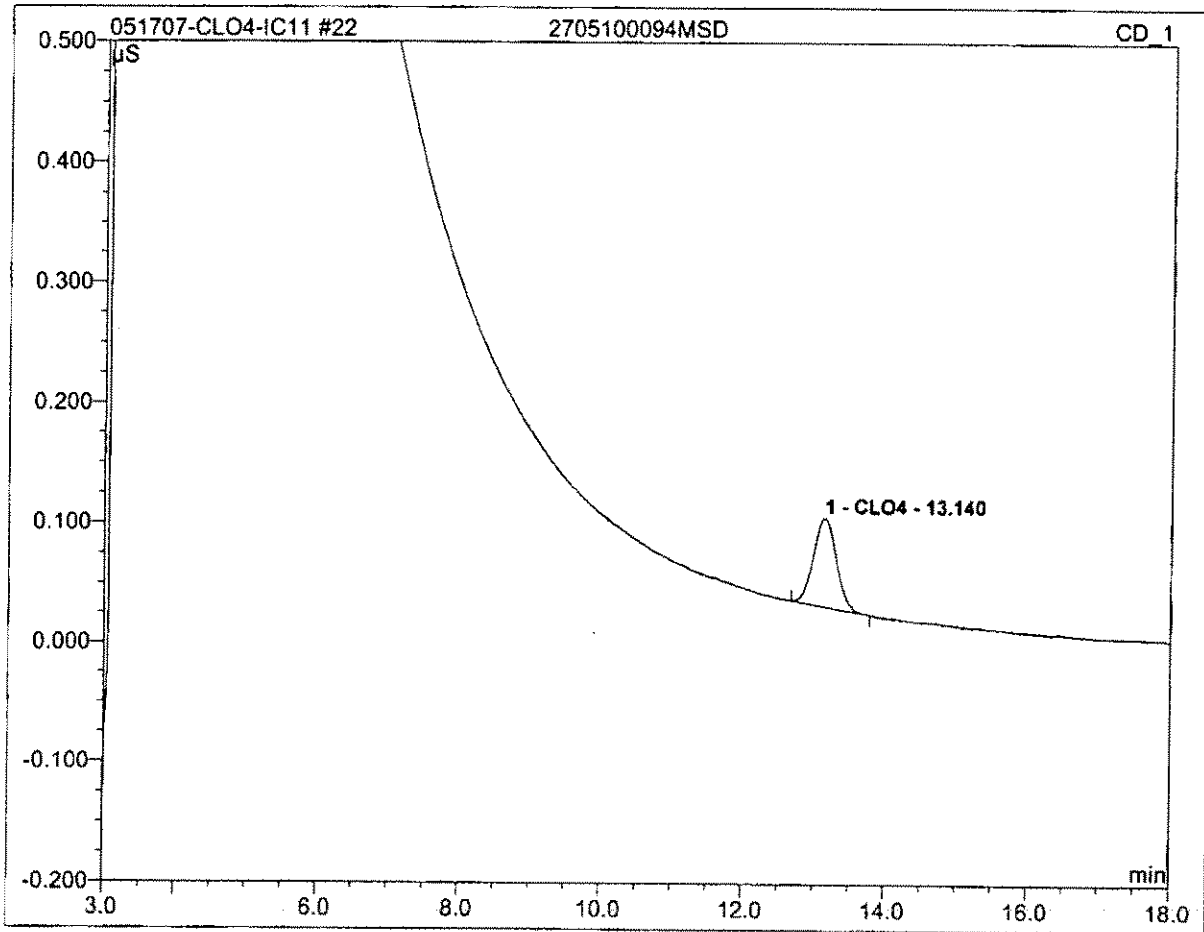
21 2705100094MS

| | | | |
|-----------------|------------------|------------------|------------------|
| Sample Name: | 2705100094MS | Channel: | CD_1 |
| Sample Type: | unknown | Control Program: | Perchlorate-IC11 |
| Recording Time: | 05/17/2007 18:38 | Quantif. Method: | IC#4-CLO4-LOW |
| Analyst: | Raja | Dilution Factor: | 1.0000 |



| No. | Ret.Time min | Peak Name | Height µS | Area µS*min | Rel.Area % | Amount | Type |
|---------------|-----------------|-----------|--------------|----------------|---------------|--------|------|
| 1 | 13.14 | CLO4 | 0.074 | 0.027 | 100.00 | 27.592 | BMB |
| Total: | | | 0.074 | 0.027 | 100.00 | 27.592 | |

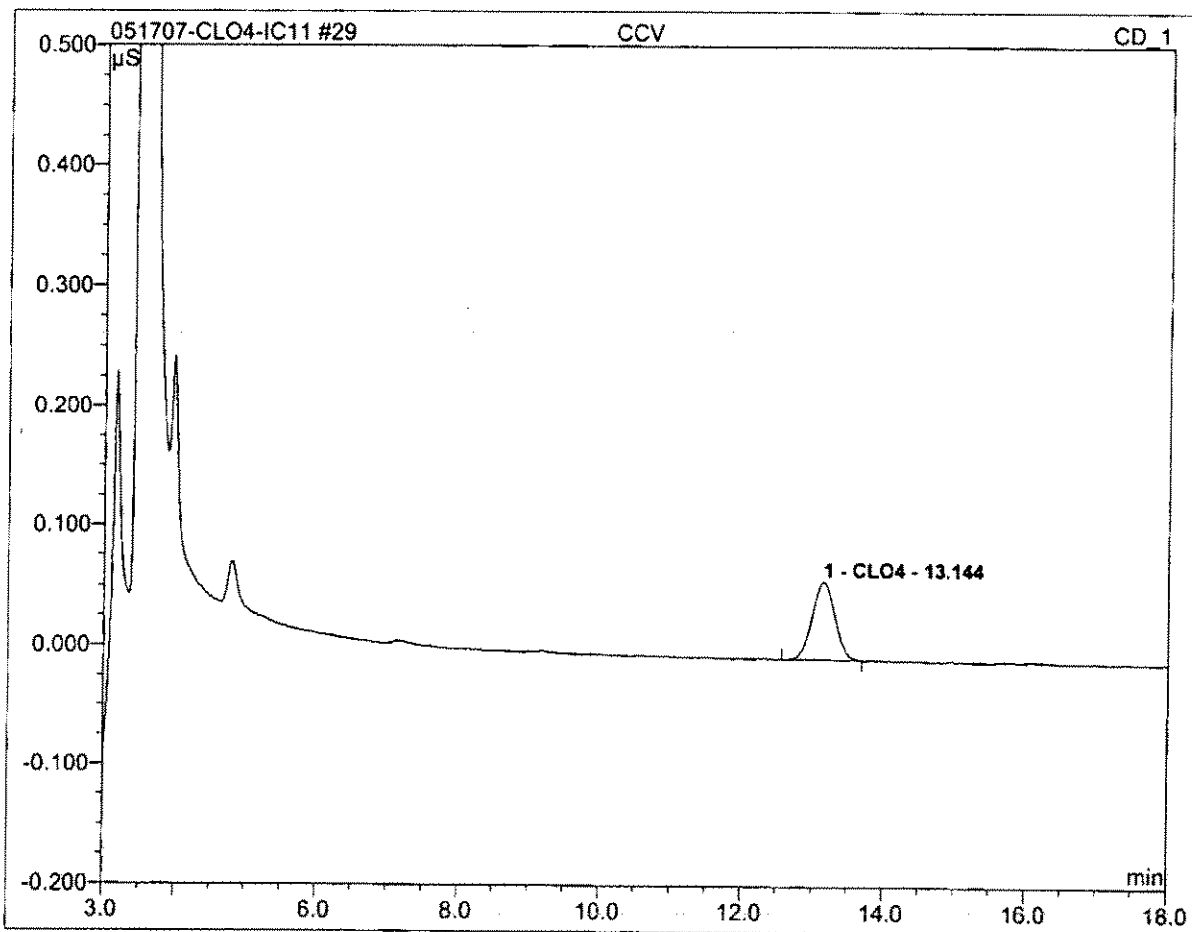
| | | | |
|-------------------------|------------------|------------------|------------------|
| 22 2705100094MSD | | | |
| Sample Name: | 2705100094MSD | Channel: | CD_1 |
| Sample Type: | unknown | Control Program: | Perchlorate-IC11 |
| Recording Time: | 05/17/2007 19:01 | Quantif. Method: | IC#4-CLO4-LOW |
| Analyst: | Raja | Dilution Factor: | 1.0000 |



| No. | Ret.Time min | Peak Name | Height µS | Area µS*min | Rel.Area % | Amount | Type |
|---------------|-----------------|-----------|--------------|----------------|---------------|--------|------|
| 1 | 13.14 | CLO4 | 0.074 | 0.028 | 100.00 | 27.962 | BMB |
| Total: | | | 0.074 | 0.028 | 100.00 | 27.962 | |

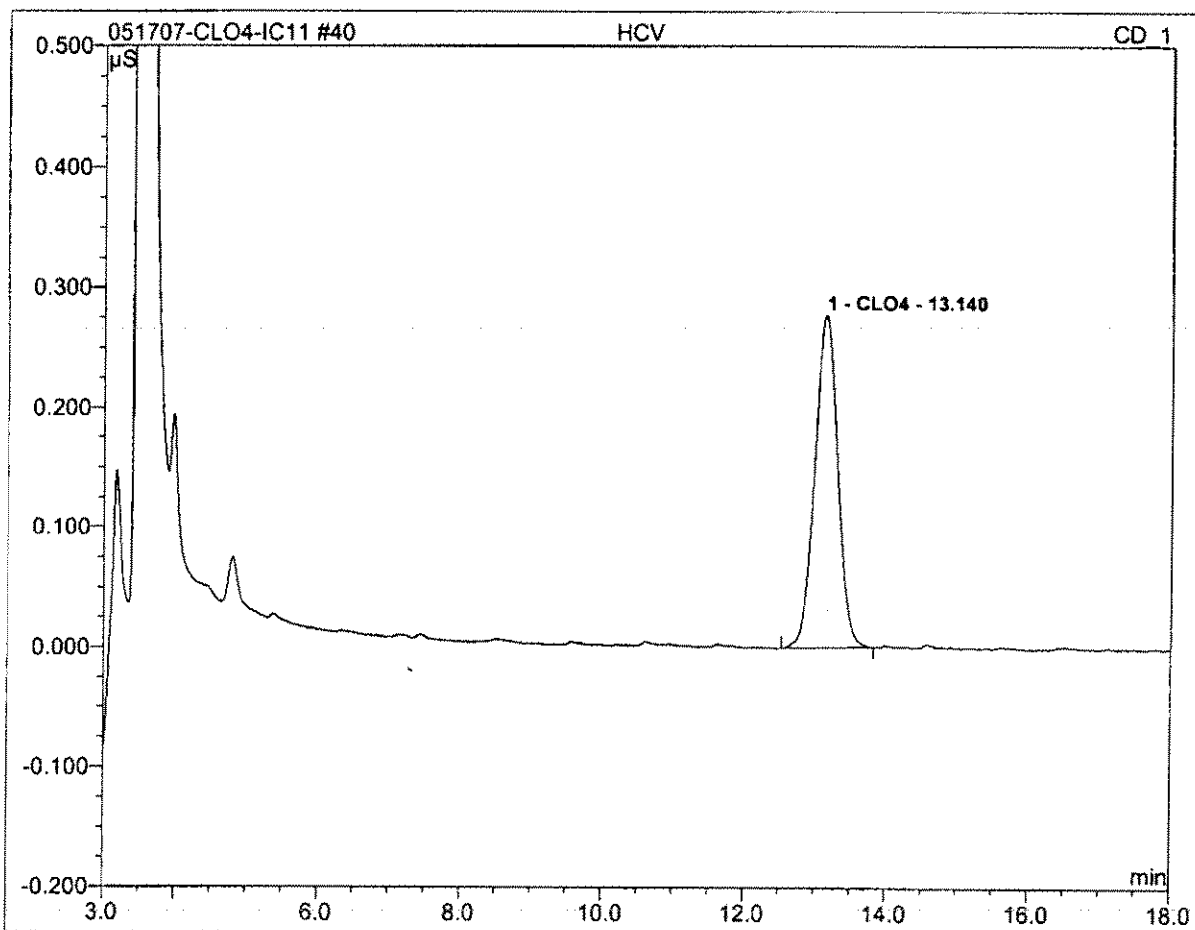
29 CCV

| | | | |
|-----------------|------------------|------------------|------------------|
| Sample Name: | CCV | Channel: | CD_1 |
| Sample Type: | unknown | Control Program: | Perchlorate-IC11 |
| Recording Time: | 05/17/2007 21:37 | Quantif. Method: | IC#4-CLO4-LOW |
| Analyst: | Raja | Dilution Factor: | 1.0000 |



| No. | Ret.Time min | Peak Name | Height μS | Area μS*min | Rel.Area % | Amount | Type |
|---------------|-----------------|-----------|--------------|----------------|---------------|--------|------|
| 1 | 13.14 | CLO4 | 0.065 | 0.024 | 100.00 | 24.758 | BMB |
| Total: | | | 0.065 | 0.024 | 100.00 | 24.758 | |

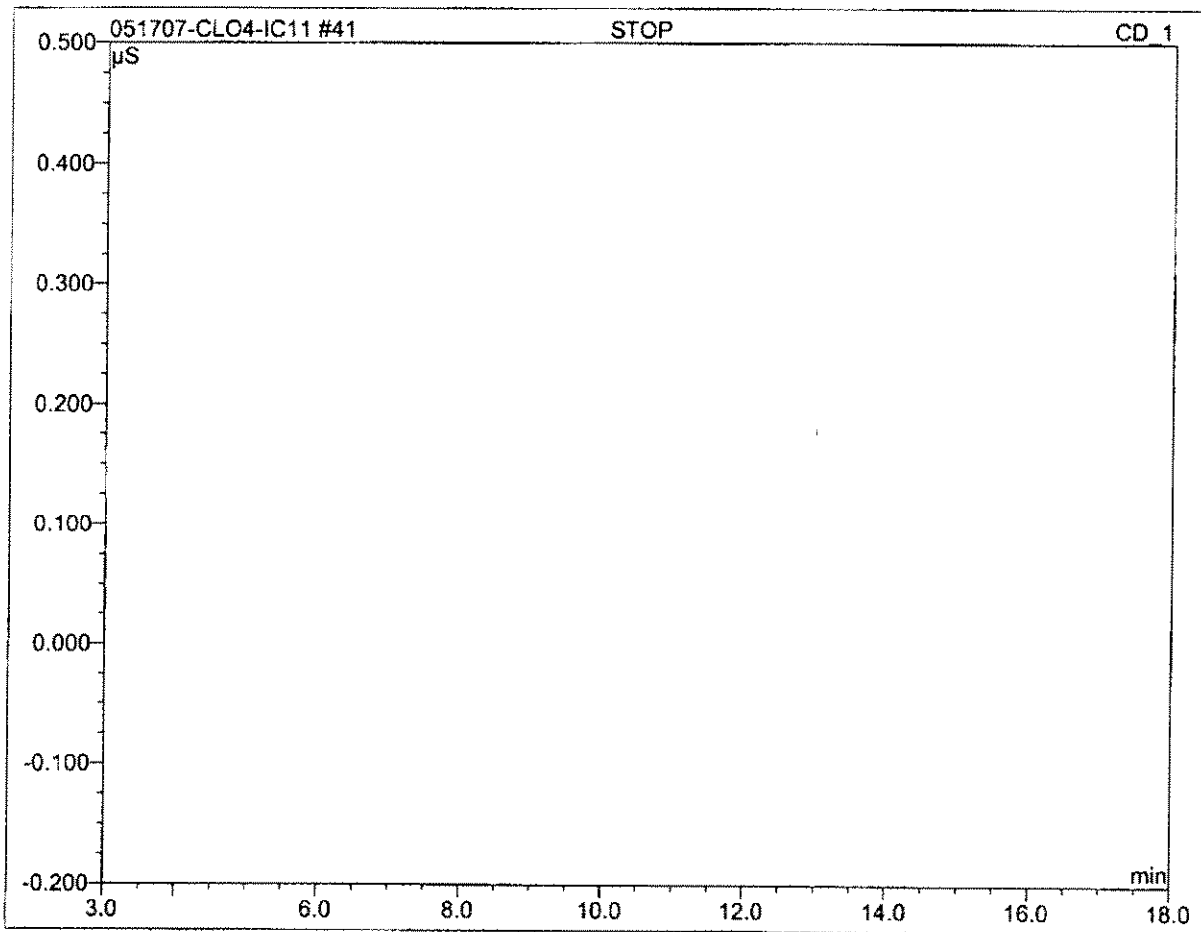
| | | | |
|-----------------|------------------|------------------|------------------|
| 40 HCV | | | |
| Sample Name: | HCV | Channel: | CD_1 |
| Sample Type: | unknown | Control Program: | Perchlorate-IC11 |
| Recording Time: | 05/18/2007 01:44 | Quantif. Method: | IC#4-CLO4-LOW |
| Analyst: | Raja | Dilution Factor: | 1.0000 |



| No. | Ret.Time min | Peak Name | Height μS | Area μS*min | Rel.Area % | Amount | Type |
|---------------|-----------------|-----------|--------------|----------------|---------------|--------|------|
| 1 | 13.14 | CLO4 | 0.277 | 0.104 | 100.00 | 99.958 | BMB |
| Total: | | | 0.277 | 0.104 | 100.00 | 99.958 | |

41 STOP

| | | | |
|-----------------|------------------|------------------|---------------|
| Sample Name: | STOP | Channel: | CD_1 |
| Sample Type: | unknown | Control Program: | IC11 Stop |
| Recording Time: | 05/18/2007 02:06 | Quantif. Method: | IC#4-CLO4-LOW |
| Analyst: | Raja | Dilution Factor: | 1.0000 |



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

**Standard
Preparation
Worksheet
&
Certificate of
Analysis**

Reagent Preparation Documentation

Reagent: DBP LCS Stock Solution
Date Received/Prepped: 082706/100106/110106/111606/122006/1010807/020607
Date Expired: 092706/110106/120106/121606/012007/020607/030607
Manufacturer: _____
Storage Condition: _____

MW #: Raja060827-1
By: Raja
Matrix: aq
Amount: 100ml
Lot #: _____

| Component | Comment | Standard | Concentration |
|-----------------------------------|--|----------|---------------|
| Chlorite 100ppm Exp: -03-24-07 | 1000 mL → Add 50 mL of EDA (LMR060129-12) the | R 201401 | 10ppm |
| Chlorate 100ppm Exp: -05-31-09 | 1000 mL dilute to 100 mL with D.I. water | R 201400 | 10ppm |
| Bromide Exp: -10-27-07 | 500 mL | R 201369 | 5ppm |

Comment: _____

Reagent: DBP LCS Solution
Date Received/Prepped: 082706/100106/110106/111606/122006/1010807/020607
Date Expired: 092706/110106/120106/121606/012007/020607/030607
Manufacturer: _____
Storage Condition: _____

MW #: Raja060827-2
By: Raja
Matrix: aq
Amount: 100ml
Lot #: _____

| Component | Comment | Standard | Concentration |
|--------------------|--|--------------|---|
| DBP LCS Stock soln | 2ml → Dilute with D.I. water to 100ml | Raja060827-1 | ClO ₂ :- 200ppb |
| EDA Solution | 50 mL | LMR060129-12 | ClO ₂ :- 200ppb Br:- 100ppb |

Comment: Prep: _____
 Expired: _____

Reagent: Perchlorate Calibration Stock Solution
Date Received/Prepped: 091306/101106/113006/102106/102206/1022607
Date Expired: 121306/101107/102300/1042107/1050607/1052807
Manufacturer: _____
Storage Condition: _____

MW #: Raja060913-1
By: Raja
Matrix: aq
Amount: 100ml
Lot #: _____

| Component | Comment | Standard | Concentration |
|-------------------------------------|---|----------|---------------|
| Perchlorate 1000ppm Exp: -012809 | 100 mL → Dilute with D.I. water to 100ml | R 201449 | 1000ppm |

Comment: MS/MSD
030407/040207/051407/061207/060407/072707/1081107/091207/

Reagent Preparation Documentation

Reagent: ClO₄ Calibration Standard #1
 Date Received/Prepped: 091306/101106/113006/102107/102207/1022807
 Date Expired: 121306/101107/102307/104210/105207/1052807
 Manufacturer: _____
 Storage Condition: _____

MW #: Raja060913-2
 By: Raja
 Matrix: eg
 Amount: 100ml
 Lot #: _____

| Component | Comment | Standard | Concentration |
|-----------------------------------|--|--------------|---------------|
| ClO ₄ Cal. Stock sol'n | 200 ML → Dilute to 100ml with D.I. water | Raja060913-1 | 2.0 ppb |
| | | | |
| | | | |
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| | | | |

Comment: 030407/042707/051607/061207/060407/072707/081607/091207/

Reagent: ClO₄ Calibration Standard #2
 Date Received/Prepped: 091306/101106/113006/102107/102207/1022807
 Date Expired: 121306/101107/102307/104210/105207/1052807
 Manufacturer: _____
 Storage Condition: _____

MW #: Raja060913-3
 By: Raja
 Matrix: eg
 Amount: 100ml
 Lot #: _____

| Component | Comment | Standard | Concentration |
|-----------------------------------|--|--------------|---------------|
| ClO ₄ Cal. Stock sol'n | 400 ML → Dilute to 100ml with D.I. water | Raja060913-1 | 4.0 ppb |
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| | | | |

Comment: 030407/042707/051607/061207/060407/072707/081607/091207/

Reagent: ClO₄ Calibration Standard #3
 Date Received/Prepped: 091306/101106/113006/102107/102207/1022807
 Date Expired: 121306/101107/102307/104210/105207/1052807
 Manufacturer: _____
 Storage Condition: _____

MW #: Raja060913-4
 By: Raja
 Matrix: eg
 Amount: 100ml
 Lot #: _____

| Component | Comment | Standard | Concentration |
|-----------------------------------|---------------------------------------|--------------|---------------|
| ClO ₄ Cal. Stock sol'n | 1ml → Dilute to 100ml with D.I. water | Raja060913-1 | 10.0 ppb |
| | | | |
| | | | |
| | | | |
| | | | |

Comment: 030407/042707/051607/061207/060407/072707/081607/091207/

Reagent Preparation Documentation

Reagent: ClO₄ Calibration Standard #4
Date Received/Prepped: 091306/101106 / 113006/1012107 / 022807/030407
Date Expired: 121306/011107 / 023007/042107 / 052807/060407
Manufacturer: 023007
Storage Condition: _____

MW #: Raja060913-5
By: Raja
Matrix: ag
Amount: 100ml
Lot #: _____

| Component | Comment | Standard | Concentration |
|-----------------------------------|---|--------------|---------------|
| ClO ₄ Cal. Stock Sol'n | 2.5ml → Dilute to 100ml with D.I. water | Raja060913-1 | 25.0ppb |
| | | | |
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Comment: 042707/051607/061207/
072707/081607/091207/

Reagent: ClO₄ Calibration Standard #5
Date Received/Prepped: 091306/101106 / 113006/1012107 / 022807/030407
Date Expired: 121306/011107 / 023007/042107 / 052807/060407
Manufacturer: _____
Storage Condition: _____

MW #: Raja060913-6
By: Raja
Matrix: ag
Amount: 100ml
Lot #: _____

| Component | Comment | Standard | Concentration |
|-----------------------------------|---|--------------|---------------|
| ClO ₄ Cal. Stock Sol'n | 5.0ml → Dilute to 100ml with D.I. water | Raja060913-1 | 50.0ppb |
| | | | |
| | | | |
| | | | |
| | | | |

Comment: 042707/051607/
072707/081607/

Reagent: ClO₄ Calibration Standard #6
Date Received/Prepped: 091306/101106 / 113006/1012107 / 022807/030407
Date Expired: 121306/011107 / 023007/042107 / 052807/060407
Manufacturer: _____
Storage Condition: _____

MW #: Raja060913-7
By: Raja
Matrix: ag
Amount: 100ml
Lot #: _____

| Component | Comment | Standard | Concentration |
|-----------------------------------|--|--------------|---------------|
| ClO ₄ Cal. Stock Sol'n | 10.0ml → Dilute to 100ml with D.I. water | Raja060913-1 | 100ppb |
| | | | |
| | | | |
| | | | |
| | | | |

Comment: 042707/051607/061207/
072707/081607/091207/

CERTIFIED WEIGHT REPORT:

Part Number: 57001 Lot # 072806
 Lot Number: 072806 Solvent(s): 072806 ASTM Type 1 Water
 Description: Perchlorate

R201449

Expiration Date: 072809
 Nominal Concentration (µg/mL): 1000

Weight(s) shown below were combined and diluted to (mL): 1000.55 5E-05 Balance Uncertainty
 0.084 Flask Uncertainty

| | |
|------------------------|-----------------|
| <i>Lawrence Barry</i> | |
| Formulated By: | Lawrence Barry |
| <i>Pedro L. Rentas</i> | |
| Reviewed By: | Pedro L. Rentas |
| 072806 | |

| Compound | RM# | Lot Number | Nominal Conc. (µg/mL) | Purity (%) | Uncertainty Assay (%) | Target Weight(g) | Actual Weight(g) | *Actual Conc. (µg/mL) | Expanded Uncertainty (+/-) | CAS# | (Solvent Safety Info. On Attached pg.) | NIST |
|------------------------------|-----------------|------------|-----------------------|------------|-----------------------|------------------|------------------|-----------------------|----------------------------|------------|--|-------|
| 1. Sodium Perchlorate (ClO4) | IN119 AR06730TQ | | 1000.0 | 99.0 | 0.10 | 1.2319 | 1.23216 | 1000.2 | 0.00203 | 07601-89-0 | N/A | 3152a |
| | | | | | | | | | | | N/A | SEM |

Method: E:300P.M. Column: ASAHIPACK ODP50 (150mm X 4.0mm ID X 5.0µm df). Inj. Volume= 10µL. Flow Rate= 1.5mL/min.. Column Temp.= 40°C. Isocratic Analysis using Anion Mobile Phase.
 Detector: PDA (DAD1, Sig=360,20 REF=266, 10). Analyst: Pedro Rentas.

| Peak No. | Name | PDA RT (min.) |
|----------|--------------------|---------------|
| 1 | Sodium Perchlorate | 21.78 |

