

Level C Data Package Deliverables

Wet Chemistry



Applied P & Ch Laboratory

Applied P & Ch Laboratory
Wet Analysis Results for Method 7196

Client Name: GEOFON, Inc.
Project ID: JPL

Project No: 04-4428.10
Service ID: 35951

Anal. Method 7196
Collected by: JR

Component Name: Chromium (VI)
CAS No: 1333-82-0

Lab ID	Sample ID	Matrix	Coll. Date	Rcv Date	Anal. Date	Batch	Unit	RL	Result	Q
03-5951-1	DUPE-5-4-Q03	Water	11/04/03	11/04/03	11/04/03	03W5055	mg/L	0.01	<0.01	U
03-5951-2	EB-9-11-4-03	Water	11/04/03	11/04/03	11/04/03	03W5055	mg/L	0.01	<0.01	U
03-5951-3	MW-14-1	Water	11/04/03	11/04/03	11/04/03	03W5055	mg/L	0.01	<0.01	U
03-5951-4	MW-14-2	Water	11/04/03	11/04/03	11/04/03	03W5055	mg/L	0.01	<0.01	U
03-5951-5	MW-14-3	Water	11/04/03	11/04/03	11/04/03	03W5055	mg/L	0.01	<0.01	U
03-5951-6	MW-14-4	Water	11/04/03	11/04/03	11/04/03	03W5055	mg/L	0.01	<0.01	U
03-5951-7	MW-14-5	Water	11/04/03	11/04/03	11/04/03	03W5055	mg/L	0.01	<0.01	U
03-5951-8	MW-17-1	Water	11/04/03	11/04/03	11/04/03	03W5055	mg/L	0.01	<0.01	U
03-5951-9	MW-17-2	Water	11/04/03	11/04/03	11/04/03	03W5055	mg/L	0.01	<0.01	U
03-5951-10	MW-17-3	Water	11/04/03	11/04/03	11/04/03	03W5055	mg/L	0.01	<0.01	U
03-5951-11	MW-17-4	Water	11/04/03	11/04/03	11/04/03	03W5055	mg/L	0.01	<0.01	U
03-5951-12	MW-17-5	Water	11/04/03	11/04/03	11/04/03	03W5055	mg/L	0.01	<0.01	U
03W5055-MB-01	03W5055-MB-01	Water	11/04/03	11/04/03	11/04/03	03W5055	mg/L	0.01	<0.01	U

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: Q - Qualifier.

Qualifier: U - Not Detected or less than MDL

B - Less than RL (PQL, EQL or CRDL), but greater than MDL.

Applied P & Ch Laboratory
Wet Analysis Results for Method 314.0

Client Name: GEOFON, Inc. Project No: 04-4428.10 Anal. Method 314.0
Project ID: JPL Service ID: 35951 Collected by: JR

Component Name: Perchlorate
CAS No:

Lab ID	Sample ID	Matrix	Coll. Date	Rcv Date	Anal. Date	Batch	Unit	RL	Result	Q
03-5951-1	DUPE-5-4-Q03	Water	11/04/03	11/04/03	11/04/03	03W5052	µg/L	4	193	
03-5951-2	EB-9-11-4-03	Water	11/04/03	11/04/03	11/10/03	03W5108	µg/L	4	<4	U
03-5951-3	MW-14-1	Water	11/04/03	11/04/03	11/10/03	03W5108	µg/L	4	6.6	
03-5951-4	MW-14-2	Water	11/04/03	11/04/03	11/10/03	03W5108	µg/L	4	4.7	
03-5951-5	MW-14-3	Water	11/04/03	11/04/03	11/04/03	03W5052	µg/L	4	7.2	
03-5951-6	MW-14-4	Water	11/04/03	11/04/03	11/04/03	03W5052	µg/L	4	4.4	
03-5951-7	MW-14-5	Water	11/04/03	11/04/03	11/04/03	03W5052	µg/L	4	<4	U
03-5951-8	MW-17-1	Water	11/04/03	11/04/03	11/04/03	03W5052	µg/L	4	<4	U
03-5951-9	MW-17-2	Water	11/04/03	11/04/03	11/04/03	03W5052	µg/L	4	15.7	
03-5951-10	MW-17-3	Water	11/04/03	11/04/03	11/04/03	03W5052	µg/L	4	199	
03-5951-11	MW-17-4	Water	11/04/03	11/04/03	11/04/03	03W5052	µg/L	4	<4	U
03-5951-12	MW-17-5	Water	11/04/03	11/04/03	11/04/03	03W5052	µg/L	4	<4	U
03W5052-MB-01	03W5052-MB-01	Water	11/04/03	11/04/03	11/04/03	03W5052	µg/L	4	<4	U
03W5108-MB-01	03W5108-MB-01	Water	11/10/03	11/10/03	11/10/03	03W5108	µg/L	4	<4	U

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Note: Q - Qualifier.

Qualifier: U - Not Detected or less than MDL

B - Less than RL (PQL, EQL or CRDL), but greater than MDL.

FORM-3

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method 314.0

Client Name: GEOFON, Inc.

Contract No:

Lab Code: APCL

Case No:

SAS No:

Service ID: 35951

Project ID: JPL

Project No: 04-4428.10

Sample Matrix: Water

Batch No: 03W5052

LCS Filename: -

Date Analyzed: 110403

Time Analyzed:

LCSD Filename: -

Date Analyzed: 110403

Time Analyzed:

Spiked Components	Unit	Spike Added	Concentration		LCS Rec% #	QC Limit, % REC
			Unspiked	LCS		
PERCHLORATE	µg/L	25	0	27.8	111	80-120
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	QC Limit, %	
					RPD	REC
PERCHLORATE	µg/L	25	28.0	112	1	20 80-120
# of Out-of-control				0	0	

Column to be used to flag recovery and RPD values:

* - Values outside of contract required QC Limits

D - Spiked components diluted out

Comments: _____

FORM-3

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 314.0

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	35951
Project ID:	JPL	Project No:	04-4428.10	Sample Matrix:	Water
		Batch No:	03W5052		
MS Filename:	-	Date Analyzed:	110403	Time Analyzed:	
MSD Filename:	-	Date Analyzed:	110403	Time Analyzed:	
MS Sample No:	MW-21-4	Sample Lab ID:	03-5892-5		

Spiked Components	Unit	Spike Added	Concentration		MS Rec% #	QC Limit, % REC
			Unspiked	MS		
PERCHLORATE	µg/L	25	3.4	29.8	106	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, %	
						RPD	REC
PERCHLORATE	µg/L	25	29.5	104	2	20	75-125
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* - Values outside of contract required QC Limits

D - Spiked components diluted out

Comments: _____

FORM-3

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method 7196

Client Name: GEOFON, Inc.	Contract No:	Lab Code: APCL
Case No:	SAS No:	Service ID: 35951
Project ID: JPL	Project No: 04-4428.10	Sample Matrix: Water
	Batch No: 03W5055	
LCS Filename: -	Date Analyzed: 110403	Time Analyzed: 13:44
LCSD Filename: -	Date Analyzed: 110403	Time Analyzed: 13:44

Spiked Components	Unit	Spike Added	Concentration		LCS Rec% #	QC Limit, % REC
			Unspiked	LCS		
CHROMIUM (VI)	mg/L	0.25	0	0.258	103	80-115
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, %	
						RPD	REC
CHROMIUM (VI)	mg/L	0.25	0.245	98	5	19	80-115
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* - Values outside of contract required QC Limits

D - Spiked components diluted out

Comments: _____

FORM-3

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 7196

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	35951
Project ID:	JPL	Project No:	04-4428.10	Sample Matrix:	Water
		Batch No:	03W5055		
MS Filename:	-	Date Analyzed:	110403	Time Analyzed:	13:44
MSD Filename:	-	Date Analyzed:	110403	Time Analyzed:	13:44
MS Sample No:	DUPE-5-4-Q03	Sample Lab ID:	03-5951-1		

Spiked Components	Unit	Spike Added	Concentration		MS Rec% #	QC Limit, % REC
			Unspiked	MS		
CHROMIUM (VI)	mg/L	0.25	0	0.230	92	78-115
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, %	
						RPD	REC
CHROMIUM (VI)	mg/L	0.25	0.236	94	2	19	78-115
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* - Values outside of contract required QC Limits

D - Spiked components diluted out

Comments: _____

FORM-3

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method 314.0

Client Name: GEOFON, Inc.

Contract No:

Lab Code: APCL

Case No:

SAS No:

Service ID: 35951

Project ID: JPL

Project No: 04-4428.10

Sample Matrix: Water

Batch No: 03W5108

LCS Filename: -

Date Analyzed: 111003

Time Analyzed:

LCSD Filename: -

Date Analyzed: 111003

Time Analyzed:

Spiked Components	Unit	Spike Added	Concentration		LCS Rec% #	QC Limit, % REC
			Unspiked	LCS		
PERCHLORATE	µg/L	25	0	26.2	105	80-120
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, %	
						RPD	REC
PERCHLORATE	µg/L	25	28.0	112	6	20	80-120
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* - Values outside of contract required QC Limits

D - Spiked components diluted out

Comments:

FORM-3

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 314.0

Client Name: GEOFON, Inc.	Contract No:	Lab Code: APCL
Case No:	SAS No:	Service ID: 35951
Project ID: JPL	Project No: 04-4428.10	Sample Matrix: Water
	Batch No: 03W5108	
MS Filename: -	Date Analyzed: 111003	Time Analyzed:
MSD Filename: -	Date Analyzed: 111003	Time Analyzed:
MS Sample No: MW-3-1	Sample Lab ID: 03-5973-2	

Spiked Components	Unit	Spike Added	Concentration		MS Rec% #	QC Limit, % REC
			Unspiked	MS		
PERCHLORATE	µg/L	25	0	26.2	105	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, %	
						RPD	REC
PERCHLORATE	µg/L	25	26.7	107	2	20	75-125
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* - Values outside of contract required QC Limits

D - Spiked components diluted out

Comments: _____

6A
INITIAL CALIBRATION DATA

Lab Name: Applied P & Ch Lab Contract: 35951

Analysis: Chromium (VI) Calibration Date: 7/28/03

Concentration (mg/L)	0.000	0.0125	0.025	0.125	0.250	0.50
Absorbance	0.000	0.007	0.017	0.107	0.212	0.420

$A = -0.001 + 0.846C$

A=Absorbance

C=Concentration (mg/L)

r= 0.9999

FORM-7
Applied P & Ch Laboratory
CCV Recovery for Wet Analysis

Client Name: GEOFON, Inc.

Contract No.:

Lab Code:

APCL

Case No:

SAS No.:

Service ID:

35951

Project ID: JPL

Project No.: 04-4428.10

#	Component Name	Method	Batch No.	Unit	Expected	Test Result	Rec. %	Dev. %	Flag	Control Limit, %	Test Date
1	Perchlorate	314.0	03W5052	µg/L	50	55.2	110	10	✓	85-115	11/04/2003
	Perchlorate	314.0	03W5052	µg/L	50	57.3	115	15	✓	85-115	11/04/2003
	Perchlorate	314.0	03W5052	µg/L	50	55.2	110	10	✓	85-115	11/04/2003
	Perchlorate	314.0	03W5052	µg/L	50	56.8	114	14	✓	85-115	11/04/2003
2	Chromium (VI)	7196	03W5055	mg/L	0.25	0.248	99	-1	✓	90-110	11/04/2003
	Chromium (VI)	7196	03W5055	mg/L	0.25	0.254	102	2	✓	90-110	11/04/2003
3	Perchlorate	314.0	03W5108	µg/L	50	57.0	114	14	✓	85-115	11/10/2003
	Perchlorate	314.0	03W5108	µg/L	50	57.3	115	15	✓	85-115	11/10/2003
	Perchlorate	314.0	03W5108	µg/L	50	57.1	114	14	✓	85-115	11/10/2003
	Perchlorate	314.0	03W5108	µg/L	50	57.2	114	14	✓	85-115	11/10/2003

Applied P & Ch Laboratory

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Chromium (VI) (7196) Worksheet

Batch # 02W5015 Matrix: W

[Holding Time: 24 hours!!]

Test Date: 11/4/03

Analyst: h

Lot #: Reagent Water

Diphenylcazide solution

Test Time: 3:44

SOP: G-2

Calibration	STD Lot #	$C_{std} \times V_{std} / V_f = C_i$	A_i	$RF_i = A_i / C_i$	Calibration results	Note
STD-1	W-	x / = mg/L			Least Square [RF]=	Cal. Code:
STD-2	W-	x / = mg/L			Average RF=	
STD-3	W-	x / = mg/L			C.C.= <u>0.9999</u> (≥ 0.995)	
STD-4	W-	x / = mg/L			RSD= % ($\leq 15\%$)	
STD-5	W-	x / = mg/L			Ref. page	
STD-6	W-	x / = mg/L				

Analysis Type	Sample ID or Lot #	Samp. Amnt X_0 (g or mL)	Dilu./Ext $X/X_0 = f_1$	Treat. Ratio $V/X = f_2$	540 nm A	Concentration $C' = A/RF$	C (Sample) $C = f_1 f_2 C'$	Anomaly Note
CCV	Lot: W- <u>7757</u>	Expected Conc.: x	/	= <u>0.25</u> mg/L	<u>0.210</u>	<u>0.248</u> mg/L	REC. %	90-110 %
Method Blank	Bl. Lot: <u>T1118</u>		$/X_0 =$	95.0/ =	<u>0.000</u>	mg/L	<u>0.001</u> ppm	
LCS1	Bl. Lot:		$/X_0 =$	95.0/ =	<u>0.217</u>	mg/L	<u>0.258</u> ppm	
Sample-1	<u>5951-1</u>		$/X_0 =$	95.0/ =	<u>0.201</u>	mg/L	<u>0.002</u> ppm	
MS on S-1	<u>1</u>		$/X_0 =$	95.0/ =	<u>0.194</u>	mg/L	<u>0.230</u> ppm	
MSD on S-1	<u>1</u>		$/X_0 =$	95.0/ =	<u>0.199</u>	mg/L	<u>0.236</u> ppm	
Sample 2	<u>2</u>		$/X_0 =$	95.0/ =	<u>0.200</u>	mg/L	<u>0.001</u> ppm	
Sample 3	<u>3</u>		$/X_0 =$	95.0/ =	<u>0.201</u>	mg/L	<u>0.002</u> ppm	
Sample 4	<u>4</u>		$/X_0 =$	95.0/ =	<u>0.201</u>	mg/L	<u>0.002</u> ppm	
Sample 5	<u>5</u>		$/X_0 =$	95.0/ =	<u>0.201</u>	mg/L	<u>0.002</u> ppm	
Sample 6	<u>6</u>		$/X_0 =$	95.0/ =	<u>0.203</u>	mg/L	<u>0.005</u> ppm	
Sample 7	<u>7</u>		$/X_0 =$	95.0/ =	<u>0.201</u>	mg/L	<u>0.002</u> ppm	
Sample 8	<u>8</u>		$/X_0 =$	95.0/ =	<u>0.200</u>	mg/L	<u>0.001</u> ppm	
Sample 9	<u>9</u>		$/X_0 =$	95.0/ =	<u>0.201</u>	mg/L	<u>0.002</u> ppm	
Sample 10	<u>10</u>		$/X_0 =$	95.0/ =	<u>0.204</u>	mg/L	<u>0.006</u> ppm	
Blank	Lot: <u>T1118</u>		$/X_0 =$	95.0/ =	<u>0.002</u>	mg/L	<u>0.004</u> ppm	
LCS2	Bl. Lot:		$/X_0 =$	95.0/ =	<u>0.000</u>	mg/L	<u>0.001</u> ppm	
Sample 11	<u>11</u>		$/X_0 =$	95.0/ =	<u>0.209</u>	mg/L	<u>0.245</u> ppm	
Sample 12	<u>12</u>		$/X_0 =$	95.0/ =	<u>0.202</u>	mg/L	<u>0.004</u> ppm	
Sample 13			$/X_0 =$	95.0/ =	<u>0.201</u>	mg/L	<u>0.002</u> ppm	
Sample 14			$/X_0 =$	95.0/ =		mg/L	ppm	
Sample 15			$/X_0 =$	95.0/ =		mg/L	ppm	
Sample 16			$/X_0 =$	95.0/ =		mg/L	ppm	
Sample 17			$/X_0 =$	95.0/ =		mg/L	ppm	
Sample 18			$/X_0 =$	95.0/ =		mg/L	ppm	
Sample 19			$/X_0 =$	95.0/ =		mg/L	ppm	
Sample 20			$/X_0 =$	95.0/ =		mg/L	ppm	
MTX Dup.			$/X_0 =$	95.0/ =		mg/L	ppm	

Type	STD Lot #	$C_{STD} (\mu\text{g/mL}) \times V_{STD} (\text{mL}) / X (\text{g or mL}) = T$	Spike Rec.	Ctl Limit (W/S)	PQL/MDL (in ppm)
MS	W- <u>7757</u>	x / = <u>0.25</u> ppm	%	80-120 %/80-120 %	PQL(w) 0.01
MSD	W- <u>7757</u>	x / = ppm	%		PQL(s) 0.05
LCS	W- <u>7853</u>	x / = ppm	%	80-120 %/80-120 %	MDL(w) <u>0.1734</u>
LCSD	W- <u>7853</u>	x / = ppm	%		MDL(s) 0.025

Applied P & Ch Laboratory

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Chromium (VI) (7196) Worksheet

Batch # PZ Matrix: W HGS [Holding Time: 24 hours!!]Test Date: 7/28/03 Analyst: PCLot #: Reagent Water Al 7/28/03
Diphenylcarbazide solution

Test Time: _____ SOP: G

Calibration	STD Lot #	$C_{std} \times V_{std} / V_f = C_i$	A_i	$RF_i = A_i / C_i$	Calibration results	Note
STD-1	W- <u>7257</u>	x / = 0.00 mg/L	0.000		Least Square [RF]=	Cal. Code:
STD-2	W-	x / = 0.015 mg/L	0.007		Average RF=	
STD-3	W-	x / = 0.025 mg/L	0.017		C.C. <u>0.999</u> (≥ 0.995)	
STD-4	W-	x / = 0.05 mg/L	0.107		RSD= % ($\leq 15\%$)	
STD-5	W-	x / = 0.100 mg/L	0.212		Ref. page	
STD-6	W-	x / = 0.50 mg/L	0.420		$A = -0.001 + 0.846C$	

Analysis Type	Sample ID or Lot #	Samp. Amnt X_0 (g or mL)	Dilu./Ext $X/X_0 = f_1$	Treat. Ratio $V/X = f_2$	540 nm A	Concentration $C' = A / RF$	C (Sample) $C = f_1 f_2 C'$	Anom. Note
CCV	Lot: W- <u>7853</u>	Expected Conc.: x	/ = 0.25 mg/L		0.218	0.259 mg/L	REC. %	90-110
Method Blank	Bl. Lot:		$1/X_0 =$	95.0/ =	0.000	0.000 mg/L	ppm	
LCS1	Bl. Lot:		$1/X_0 =$	95.0/ =	0.000	0.000 mg/L	ppm	
Sample-1	<u>4177-37</u>	<u>1ml -> 100ml</u> $X_0 = 1$	$1/X_0 =$	95.0/ = 2	0.240	0.250 mg/L	ppm	
MS on S-1	<u>37</u>	<u>0.5ml -> 100ml</u> $X_0 =$	$1/X_0 =$	95.0/ = 2	0.290	0.681 mg/L	ppm	
MSD on S-1	<u>4175-15</u>	<u>10.0g</u> $X_0 = 5$	$1/X_0 =$	95.0/ = 10	0.287	0.682 mg/L	ppm	report
Sample 2	<u>15</u>	<u>Y</u>	$1/X_0 =$	95.0/ = 2	0.050	3.04 mg/L	ppm	
Sample 3			$1/X_0 =$	95.0/ =	0.247	2.94 mg/L	ppm	report
Sample 4			$1/X_0 =$	95.0/ =		mg/L	ppm	
Sample 5			$1/X_0 =$	95.0/ =		mg/L	ppm	
Sample 6			$1/X_0 =$	95.0/ =		mg/L	ppm	
Sample 7			$1/X_0 =$	95.0/ =		mg/L	ppm	
Sample 8			$1/X_0 =$	95.0/ =		mg/L	ppm	
Sample 9			$1/X_0 =$	95.0/ =		mg/L	ppm	
Sample 10			$1/X_0 =$	95.0/ =		mg/L	ppm	
Blank	Lot:		$1/X_0 =$	95.0/ =		mg/L	ppm	
LCS2	Bl. Lot:		$1/X_0 =$	95.0/ =		mg/L	ppm	
Sample 11			$1/X_0 =$	95.0/ =		mg/L	ppm	
Sample 12			$1/X_0 =$	95.0/ =		mg/L	ppm	
Sample 13			$1/X_0 =$	95.0/ =		mg/L	ppm	
Sample 14			$1/X_0 =$	95.0/ =		mg/L	ppm	
Sample 15			$1/X_0 =$	95.0/ =		mg/L	ppm	
Sample 16			$1/X_0 =$	95.0/ =		mg/L	ppm	
Sample 17			$1/X_0 =$	95.0/ =		mg/L	ppm	
Sample 18			$1/X_0 =$	95.0/ =		mg/L	ppm	
Sample 19			$1/X_0 =$	95.0/ =		mg/L	ppm	
Sample 20			$1/X_0 =$	95.0/ =		mg/L	ppm	
MTX Dup.	<u>Al 7/28/03</u>		$1/X_0 =$	95.0/ =	0.248	0.259 mg/L	ppm	

Type	STD Lot #	$C_{STD} (\mu\text{g/mL}) \times V_{STD} (\text{mL}) / X (\text{g or mL}) = T$	Spike Rec.	Ctl Limit (W/S)	PQL/MDL (in ppm)
MS	W-	x / = ppm	%	80-120 %/80-120 %	PQL(w) 0.01
MSD	W-	x / = ppm	%		PQL(s) 0.05
LCS	W-	x / = ppm	%	80-120 %/80-120 %	MDL(w) 0.005
LCSD	W-	x / = ppm	%		MDL(s) 17035

Line	Sample	Sample Type	Level	Method	Data File	Volume	Dilution
1	ccv 50ppb w8082	Sample		e314-011.met	c:\data\03w5108k\w5108k q01	1	1
2	lcs 25ppb w8087	Sample		e314-011.met	c:\data\03w5108k\w5108k l01_002.dxd	1	1
3	Lcsd 25PPB W8257	Sample		e314-011.met	c:\data\03w5108k\w5108k j01_003.dxd	1	1
4	ICCS 4ppb w8088	Sample		e314-011.met	c:\data\03w5108k\w5108k iccs 4ppb_004.dxd	1	1
5	##03W5108K IPC 25PPB W8032	Sample		e314-011.met	c:\data\03w5108k\w5108k ipc 25ppb_005.dxd	1	1
6	mb	Sample		e314-011.met	c:\data\03w5108k\w5108k k01_006.dxd	1	1
7	5951-02 f=1	Sample		e314-011.met	c:\data\03w5108k\5951-02_007.dxd	1	1
8	5951-03 f=1	Sample		e314-011.met	c:\data\03w5108k\5951-03_008.dxd	1	1
9	5951-04 f=1	Sample		e314-011.met	c:\data\03w5108k\5951-04_009.dxd	1	1
10	5973-01 f=1	Sample		e314-011.met	c:\data\03w5108k\5973-01_010.dxd	1	1
11	5973-02 f=1	Sample		e314-011.met	c:\data\03w5108k\5973-02_011.dxd	1	1
12	ccv 50ppb w8082	Sample		e314-011.met	c:\data\03w5108k\w5108k q02_012.dxd	1	1
13	ccb	Sample		e314-011.met	c:\data\03w5108k\w5108k ccb_013.dxd	1	1
14	5973-03 f=1	Sample		e314-011.met	c:\data\03w5108k\5973-03_014.dxd	1	1
15	5973-02 ms 25ppb f=1	Sample		e314-011.met	c:\data\03w5108k\w5108k m01_015.dxd	1	1
16	5973-02 msd 25ppb f=1	Sample		e314-011.met	c:\data\03w5108k\w5108k n01_016.dxd	1	1
17	5971-09 f=1	Sample		e314-011.met	c:\data\03w5108k\5971-09_017.dxd	1	1
18	5971-01 f=1	Sample		e314-011.met	c:\data\03w5108k\5971-01_018.dxd	1	1
19	5971-02 f=1	Sample		e314-011.met	c:\data\03w5108k\5971-02_019.dxd	1	1
20	5971-03 f=1	Sample		e314-011.met	c:\data\03w5108k\5971-03_020.dxd	1	1
21	5971-04 f=1	Sample		e314-011.met	c:\data\03w5108k\5971-04_021.dxd	1	1
22	5971-06 F=1	Sample		e314-011.met	c:\data\03w5108k\5971-06_022.dxd	1	1
23	ccv 50ppb w8082	Sample		e314-011.met	c:\data\03w5108k\w5108k q03_023.dxd	1	1
24	ccb	Sample		e314-011.met	c:\data\03w5108k\w5108k ccb_024.dxd	1	1
25	5971-10 F=1	Sample		e314-011.met	c:\data\03w5108k\5971-10_025.dxd	1	1
26	5995-04 f=1	Sample		e314-011.met	c:\data\03w5108k\5995-04_026.dxd	1	1
27	5995-05 f=1	Sample		e314-011.met	c:\data\03w5108k\5995-05_027.dxd	1	1
28	5995-11 f=1	Sample		e314-011.met	c:\data\03w5108k\5995-11_028.dxd	1	1
29	5995-12 f=1	Sample		e314-011.met	c:\data\03w5108k\5995-12_029.dxd	1	1
30	5995-13 f=1	Sample		e314-011.met	c:\data\03w5108k\5995-13_030.dxd	1	1
31	6002-01 f=1	Sample		e314-011.met	c:\data\03w5108k\6002-01_031.dxd	1	1
32	6002-03 f=1	Sample		e314-011.met	c:\data\03w5108k\6002-03_032.dxd	1	1
33	ccv 50ppb w8082	Sample		e314-011.met	c:\data\03w5108k\w5108k q04_033.dxd	1	1
34		Sample		aastopcl.met		1	1

Analyst W. W
Date 11/10/03
Instrument LC-1

Line	Int. Std.	Comment
1	1	
2	1	
3	1	
4	1	
5	1	
6	1	
7	1	
8	1	
9	1	
10	1	
11	1	
12	1	
13	1	
14	1	
15	1	
16	1	
17	1	
18	1	
19	1	
20	1	
21	1	
22	1	
23	1	
24	1	
25	1	
26	1	
27	1	
28	1	
29	1	
30	1	
31	1	
32	1	
33	1	
34	1	

Default Method Path: C:\PEAKNET\METHOD

Default Data Path: C:\DATA\03W5052K

Comment:

APCL Perchlorate Analysis Report

Sample Name : 5951-01 f=5

Data File Name : C:\DATA\03W5052K\5951-01_036.DXD

Method File Name : c:\peaknet\method\314-011.met

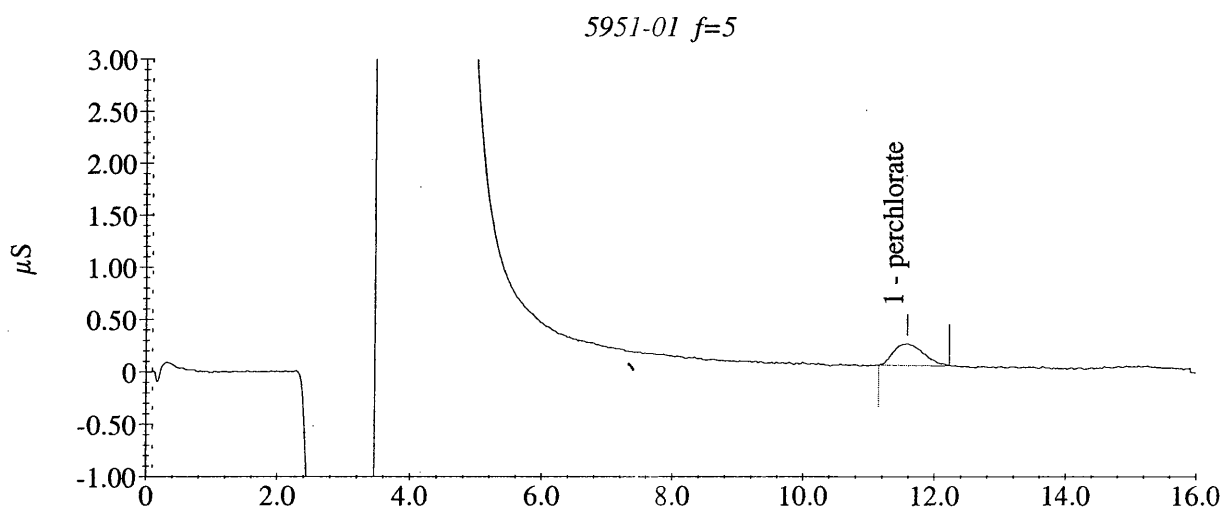
Date Time Collected : 11/05/2003 9:40:32 AM

System Operator : C.W and W.W

Dilution Factor : 5.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
1	perchlorate	11.58	193.34	65620.35	2069.52



APCL Perchlorate Analysis Report

Sample Name : 5951-01 f=1

Data File Name : C:\DATA\03W5052K\5951-01_024.DXD

Method File Name : c:\peaknet\method\314-011.met

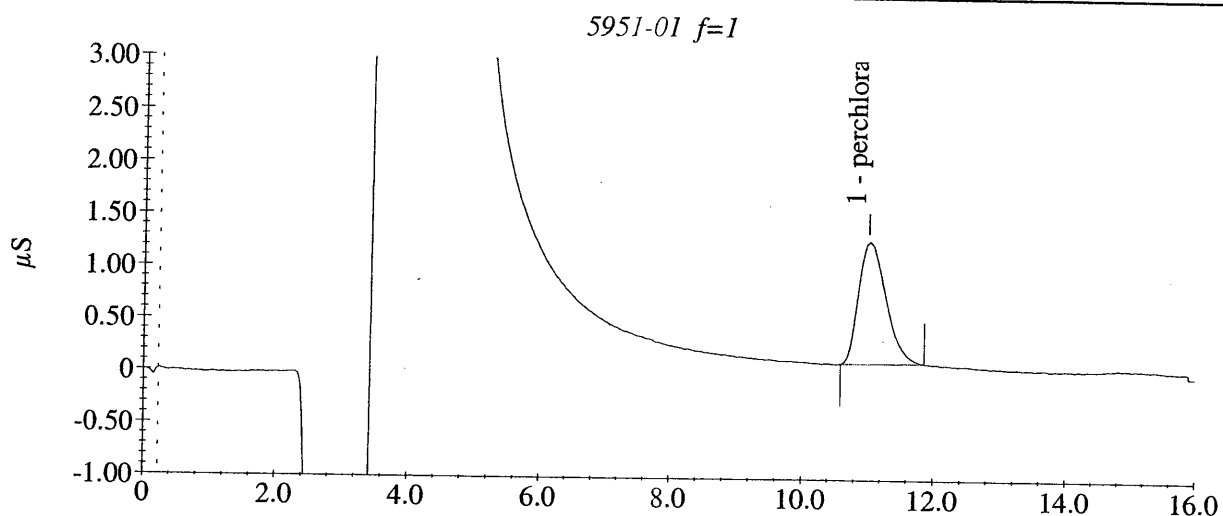
Date Time Collected : 11/04/2003 6:20:22 PM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
1	perchlorate	11.02	199.59	338720.20	11659.29



for reference



APCL Perchlorate Analysis Report

Sample Name : 5951-05 f=1

Data File Name : C:\DATA\03W5052K\5951-05_028.DXD

Method File Name : c:\peaknet\method\314-011.met

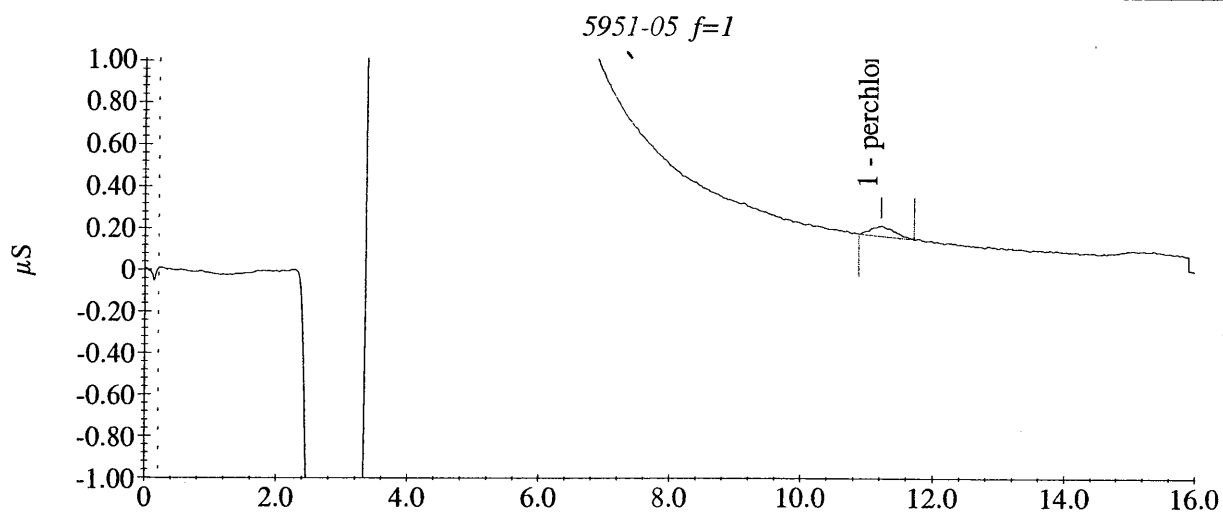
Date Time Collected : 11/04/2003 7:34:00 PM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
1	perchlorate	11.22	7.24	12284.10	486.02



APCL Perchlorate Analysis Report

Sample Name : 5951-06 f=1

Data File Name : C:\DATA\03W5052K\5951-06_029.DXD

Method File Name : c:\peaknet\method\314-011.met

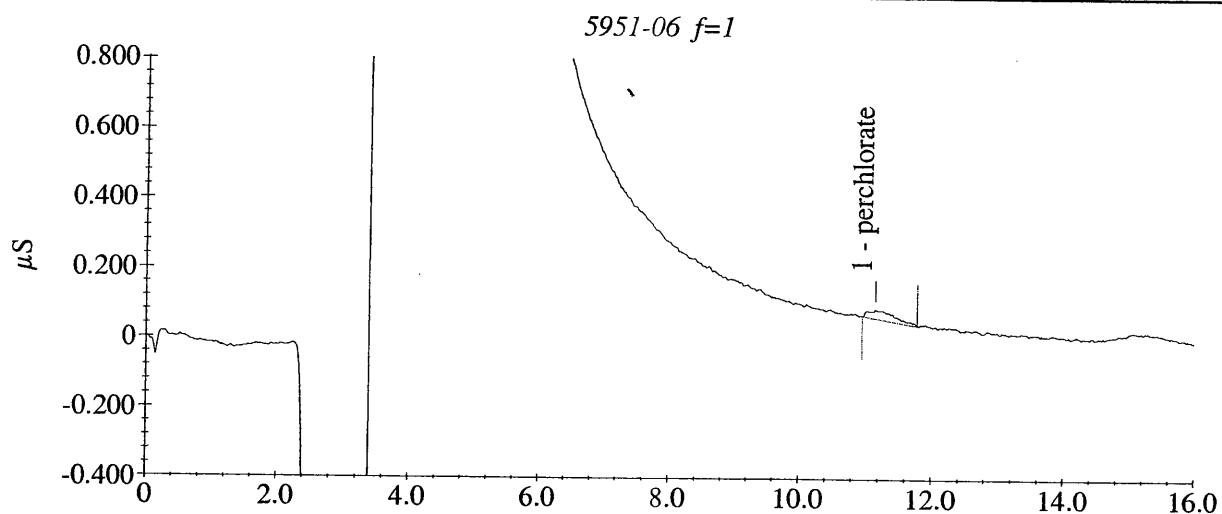
Date Time Collected : 11/04/2003 7:52:24 PM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
1	perchlorate	11.15	4.41	7486.55	250.46



APCL Perchlorate Analysis Report

Sample Name : 5951-07 f=1

Data File Name : C:\DATA\03W5052K\5951-07_030.DXD

Method File Name : c:\peaknet\method\314-011.met

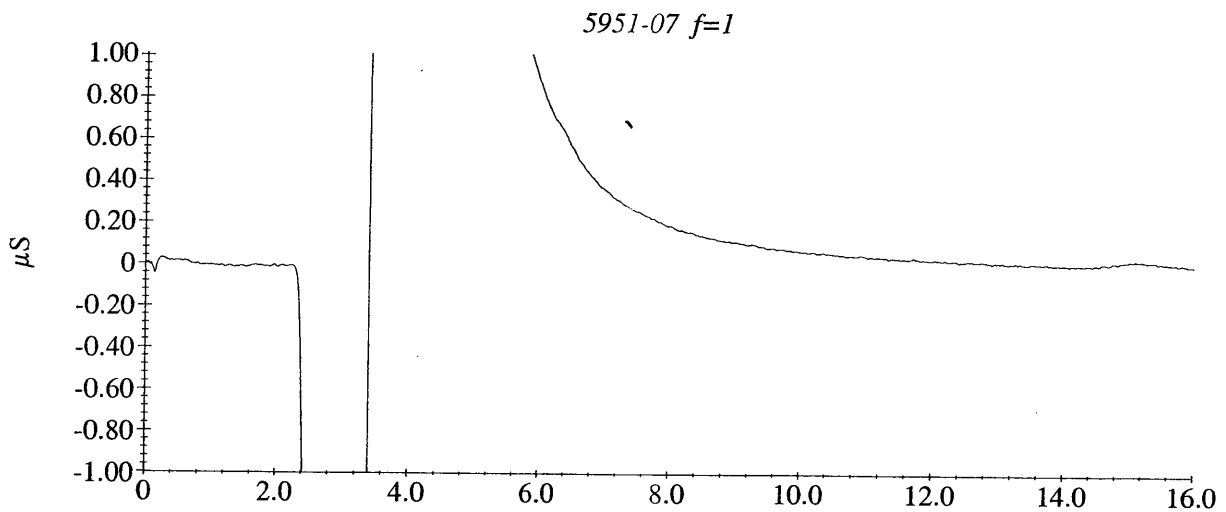
Date Time Collected : 11/04/2003 8:10:50 PM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
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APCL Perchlorate Analysis Report

Sample Name : 5951-08 f=1

Data File Name : C:\DATA\03W5052K\5951-08_031.DXD

Method File Name : c:\peaknet\method\314-011.met

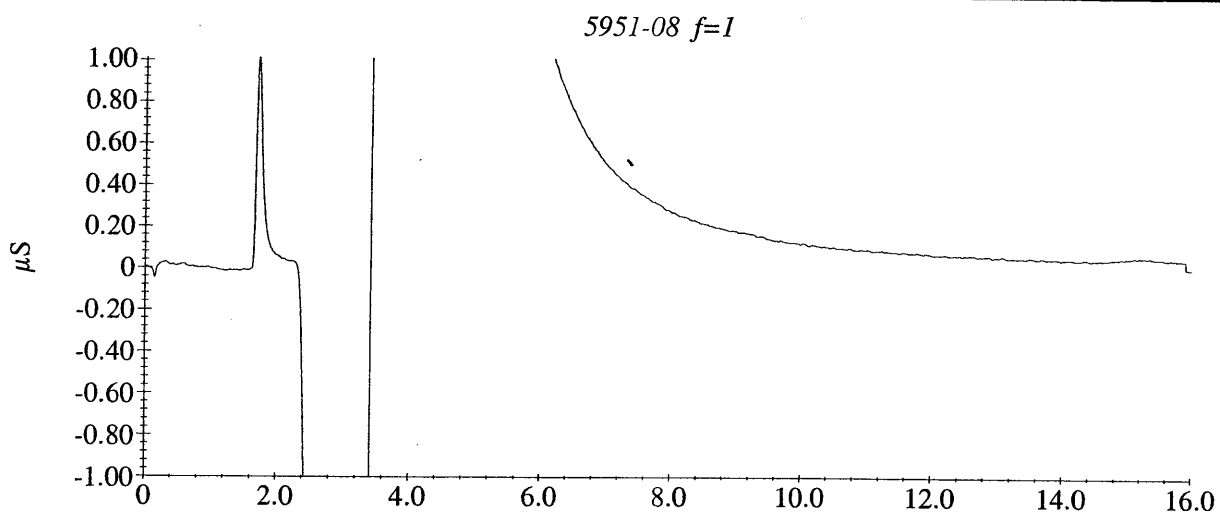
Date Time Collected : 11/04/2003 8:29:14 PM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
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APCL Perchlorate Analysis Report

Sample Name : 5951-09 f=1

Data File Name : C:\DATA\03W5052K\5951-09_032.DXD

Method File Name : c:\peaknet\method\314-011.met

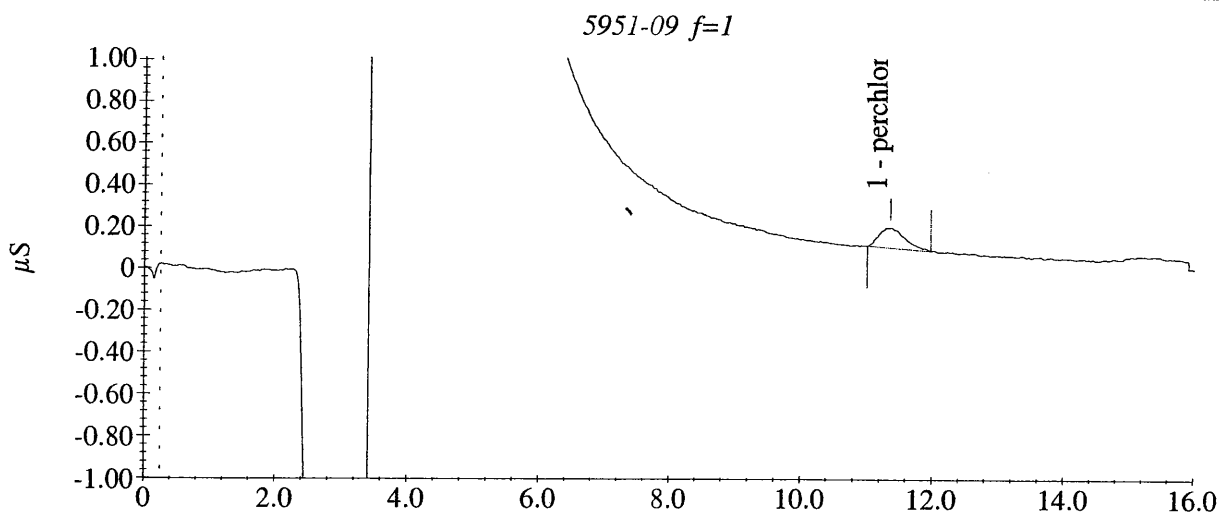
Date Time Collected : 11/04/2003 8:47:39 PM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
1	perchlorate	11.35	15.70	26644.80	951.20



APCL Perchlorate Analysis Report

Sample Name : 5951-10 f=5

Data File Name : C:\DATA\03W5052K\5951-10_037.DXD

Method File Name : c:\peaknet\method\314-011.met

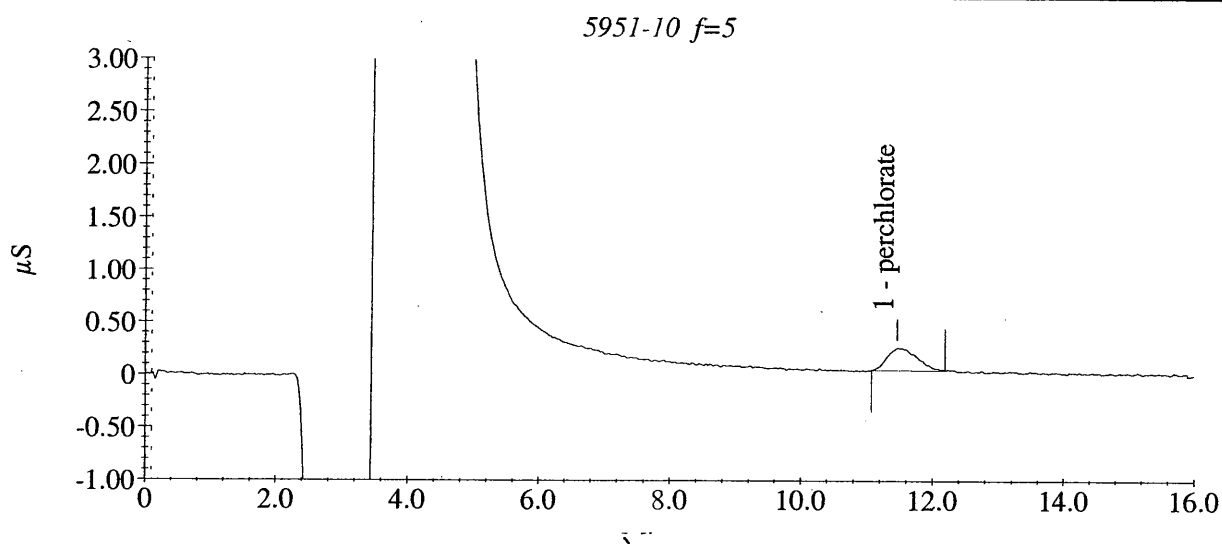
Date Time Collected : 11/05/2003 9:58:57 AM

System Operator : C.W and W.W

Dilution Factor : 5.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
1	perchlorate	11.47	199.37	67667.85	2124.63



APCL Perchlorate Analysis Report

Sample Name : 5951-10 f=1

Data File Name : C:\DATA\03W5052K\5951-10_025.DXD

Method File Name : c:\peaknet\method\ve314-011.met

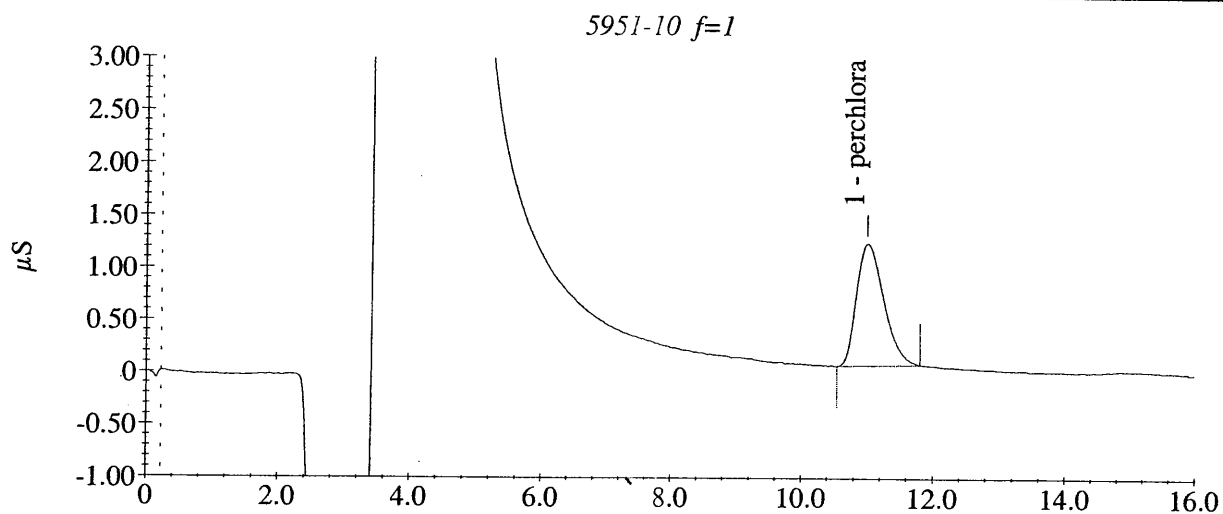
Date Time Collected : 11/04/2003 6:38:48 PM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
1	perchlorate	11.00	199.95	339327.60	11688.33



for reference



APCL Perchlorate Analysis Report

Sample Name : 5951-11 f=1

Data File Name : C:\DATA\03W5052K\5951-11_027.DXD

Method File Name : c:\peaknet\method\314-011.met

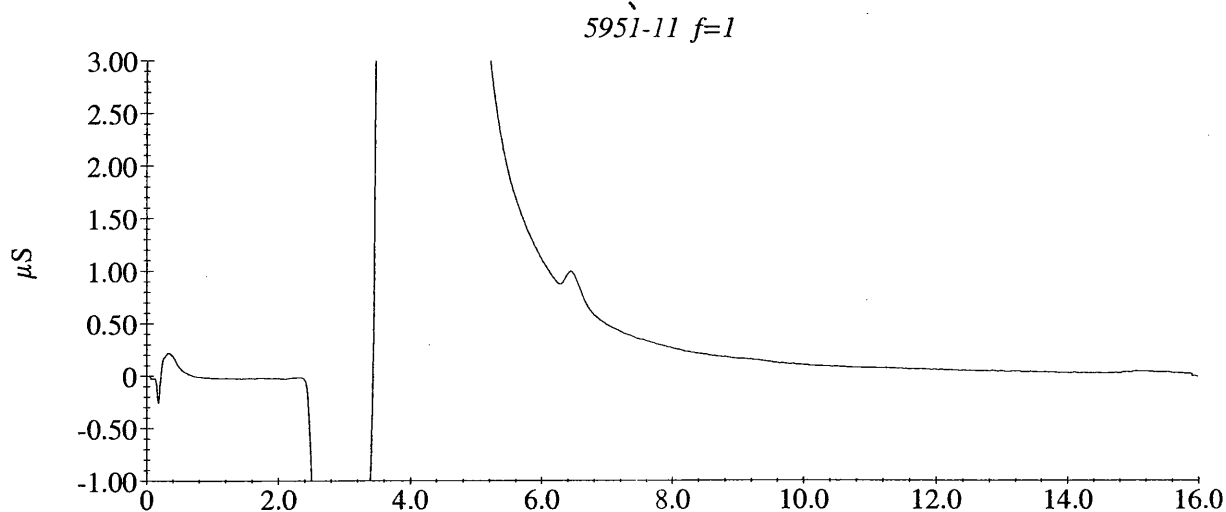
Date Time Collected : 11/04/2003 7:15:36 PM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
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APCL Perchlorate Analysis Report

Sample Name : 5951-12 f=1

Data File Name : C:\DATA\03W5052K\5951-12_026.DXD

Method File Name : c:\peaknet\method\314-011.met

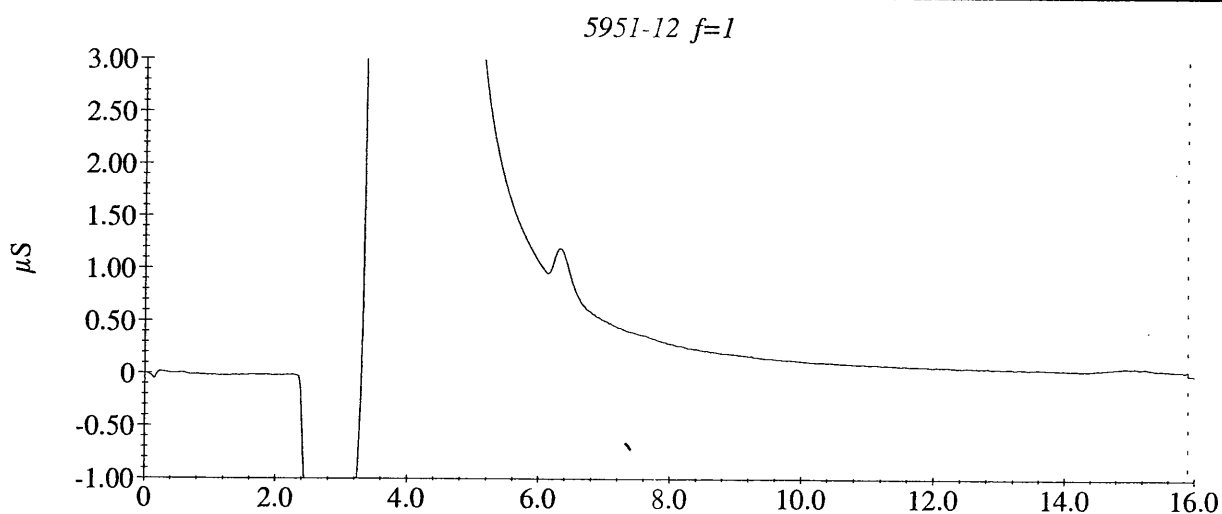
Date Time Collected : 11/04/2003 6:57:11 PM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
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Line	Sample	Sample Type	Level	Method	Data File	Volume	Dilution	Weight	Int. Std.
1	##03w5052k ipc 25ppb w8032	Sample		e314-011.met	w5052k ipc25ppb	1	1	1	1
2	ccv 50ppb w8082	Sample		e314-011.met	w5052k q01	1	1	1	1
3	ics 25ppb w8087	Sample		e314-011.met	w5052k i01	1	1	1	1
4	Lcsd 25PPB W8257	Sample		e314-011.met	w5052k j01	1	1	1	1
5	ICCS 4ppb w8088	Sample		e314-011.met	w5052k iccs 4ppb	1	1	1	1
6	mb	Sample		e314-011.met	w5052k k01	1	1	1	1
7	5892-05 f=1	Sample		e314-011.met	5892-05	1	1	1	1
8	5892-01 f=1	Sample		e314-011.met	5892-01	1	1	1	1
9	5892-02 f=1	Sample		e314-011.met	5892-02	1	1	1	1
10	5892-03 f=1	Sample		e314-011.met	5892-03	1	1	1	1
11	5892-04 f=1	Sample		e314-011.met	5892-04	1	1	1	1
12	5892-06 f=1	Sample		e314-011.met	5892-06	1	1	1	1
13	ccv 50ppb w8082	Sample		e314-011.met	w5052k q02	1	1	1	1
14	ccb	Sample		e314-011.met	w5052k ccb	1	1	1	1
15	5892-05 ms 25ppb f=1	Sample		e314-011.met	w5052k m01	1	1	1	1
16	5892-05 msd 25ppb f=1	Sample		e314-011.met	w5052k n01	1	1	1	1
17	5885-21 f=1	Sample		e314-011.met	5885-21	1	1	1	1
18	5923-01 f=1	Sample		e314-011.met	5923-01	1	1	1	1
19	5923-02 f=1	Sample		e314-011.met	5923-02	1	1	1	1
20	5923-03 f=1	Sample		e314-011.met	5923-03	1	1	1	1
21	5923-04 f=1	Sample		e314-011.met	5923-04	1	1	1	1
22	ccv 50ppb w8082	Sample		e314-011.met	w5052k q03	1	1	1	1
23	ccb	Sample		e314-011.met	w5052k ccb	1	1	1	1
24	5951-01 f=1	Sample		e314-011.met	5951-01	1	1	1	1
25	5951-10 f=1	Sample		e314-011.met	5951-10	1	1	1	1
26	5951-12 f=1	Sample		e314-011.met	5951-12	1	1	1	1
27	5951-11 f=1	Sample		e314-011.met	5951-11	1	1	1	1
28	5951-05 f=1	Sample		e314-011.met	5951-05	1	1	1	1
29	5951-06 f=1	Sample		e314-011.met	5951-06	1	1	1	1
30	5951-07 f=1	Sample		e314-011.met	5951-07	1	1	1	1
31	5951-08 f=1	Sample		e314-011.met	5951-08	1	1	1	1
32	5951-09 f=1	Sample		e314-011.met	5951-09	1	1	1	1
33	ccv 50ppb w8082	Sample		e314-011.met	w5052k q04	1	1	1	1
34	ccv 50ppb w8082	Sample		e314-011.met	w5052k q05	1	1	1	1
35	ccb	Sample		e314-011.met	w5052k ccb_035.dxd	1	1	1	1
36	5951-01 f=5	Sample		e314-011.met	5951-01_036.dxd	1	5	1	1
37	5951-10 f=5	Sample		e314-011.met	5951-10_037.dxd	1	5	1	1
38	ccv 50ppb w8082	Sample		e314-011.met	w5052k q06	1	1	1	1

Analyst W. W
Date 11/4/03
Instrument LC-K

Line	Comment
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1	
2	
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Default Method Path: C:\PEAKNET\METHOD
Default Data Path: C:\DATA\03W5052K
Comment:

APCL Perchlorate Analysis Report

Sample Name : 5892-05 ms 25ppb f=1w8033b ww 11/4/03

Data File Name : C:\DATA\03W5052K\W5052K M01_015.DXD

Method File Name : c:\peaknet\method\314-011.met

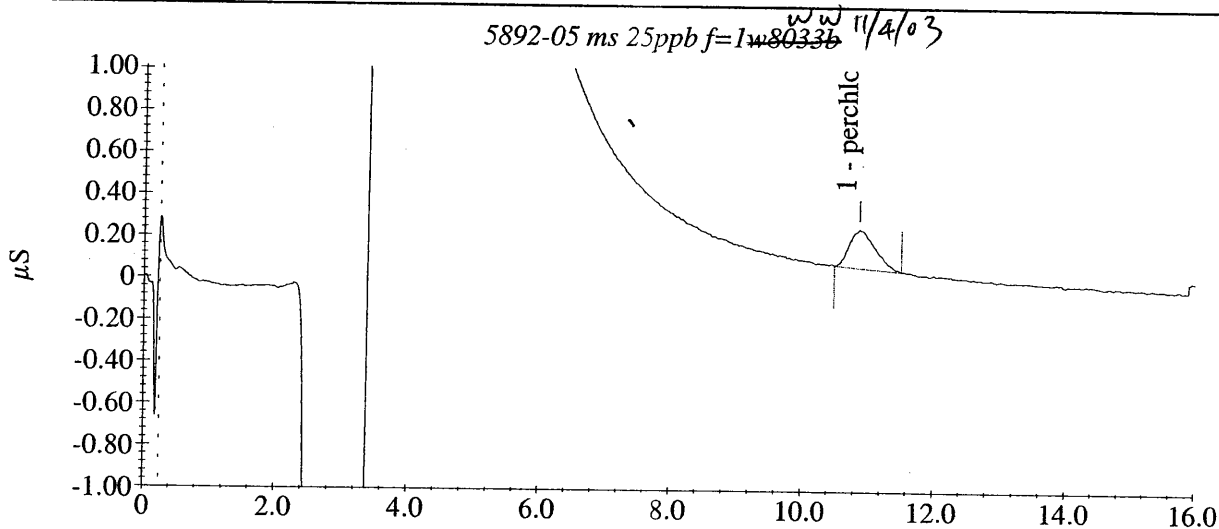
Date Time Collected : 11/04/2003 3:13:51 PM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
1	perchlorate	10.87	29.78	50546.30	1834.30



Rec 105.60%



APCL Perchlorate Analysis Report

Sample Name : 5892-05 msd 25ppb f=1w8033b ww 11/4/03
Data File Name : C:\DATA\03W5052K\W5052K N01_016.DXD

Method File Name : c:\peaknet\method\314-011.met

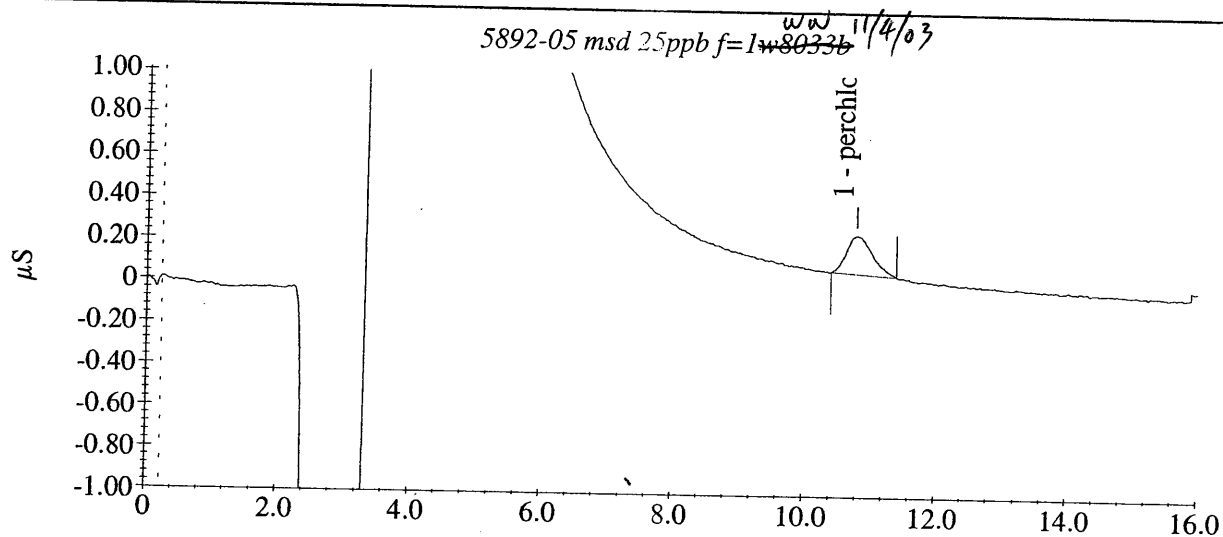
Date Time Collected : 11/04/2003 3:32:15 PM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
1	perchlorate	10.78	29.54	50129.00	1823.42



Rec 104.64%



APCL Perchlorate Analysis Report

Sample Name : 5892-05 f=1

Data File Name : C:\DATA\03W5052K\5892-05_007.DXD

Method File Name : c:\peaknet\method\314-011.met

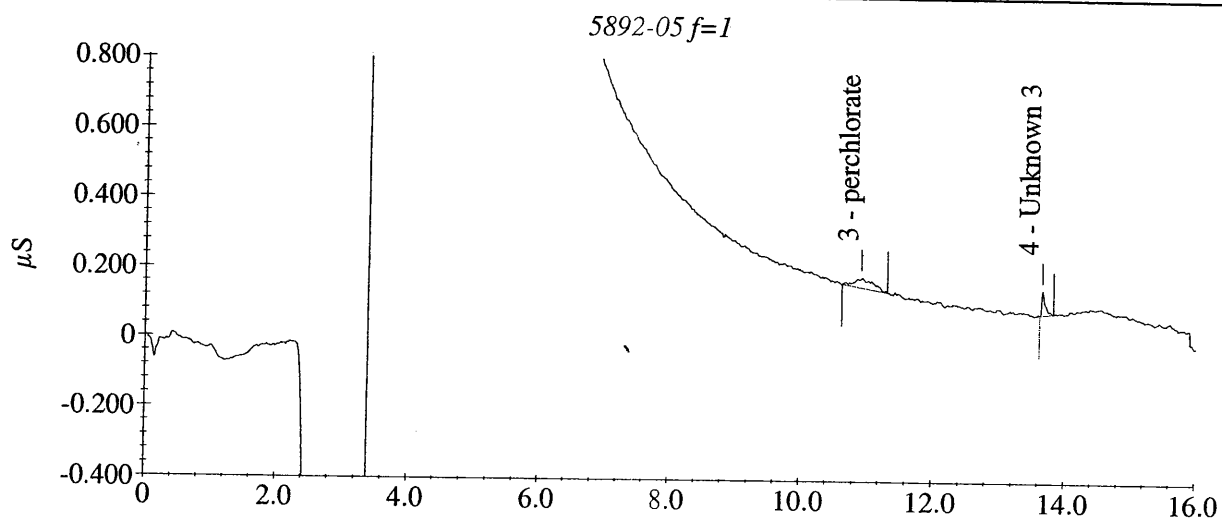
Date Time Collected : 11/04/2003 12:29:05 PM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
3	perchlorate	10.92	3.38	5734.75	261.94



APCL Perchlorate Analysis Report

Sample Name : ccv 50ppb w8082

Data File Name : C:\DATA\03W5052K\W5052K Q01_002.DXD

Method File Name : c:\peaknet\method\c314-011.met

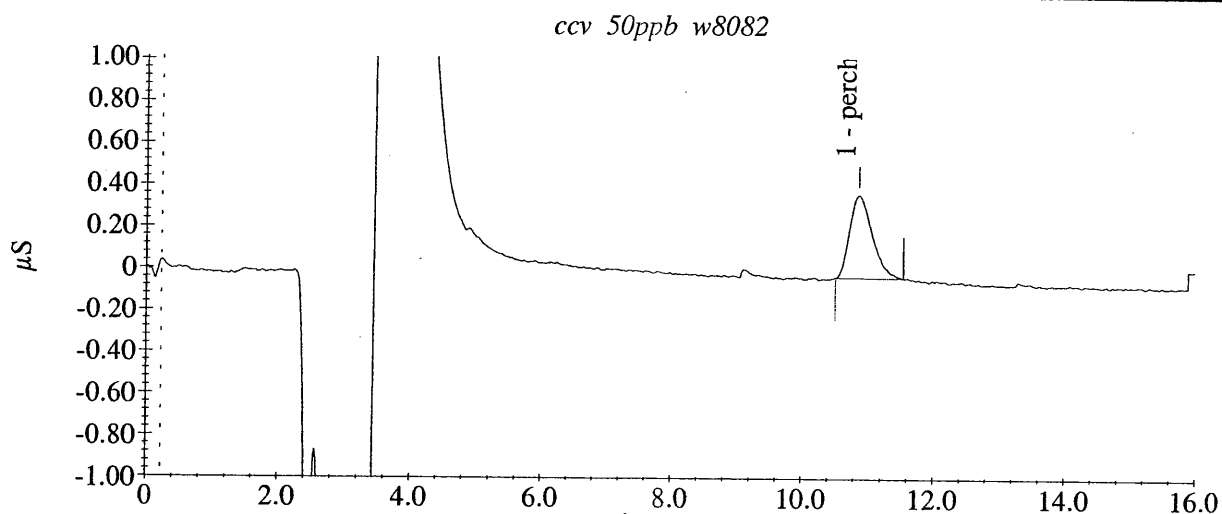
Date Time Collected : 11/04/2003 10:56:23 AM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
1	perchlorate	10.87	55.21	93701.00	3932.74



APCL Perchlorate Analysis Report

Sample Name : ccv 50ppb w8082

Data File Name : C:\DATA\03W5052K\W5052K Q02_013.DXD

Method File Name : c:\peaknet\method\314-011.met

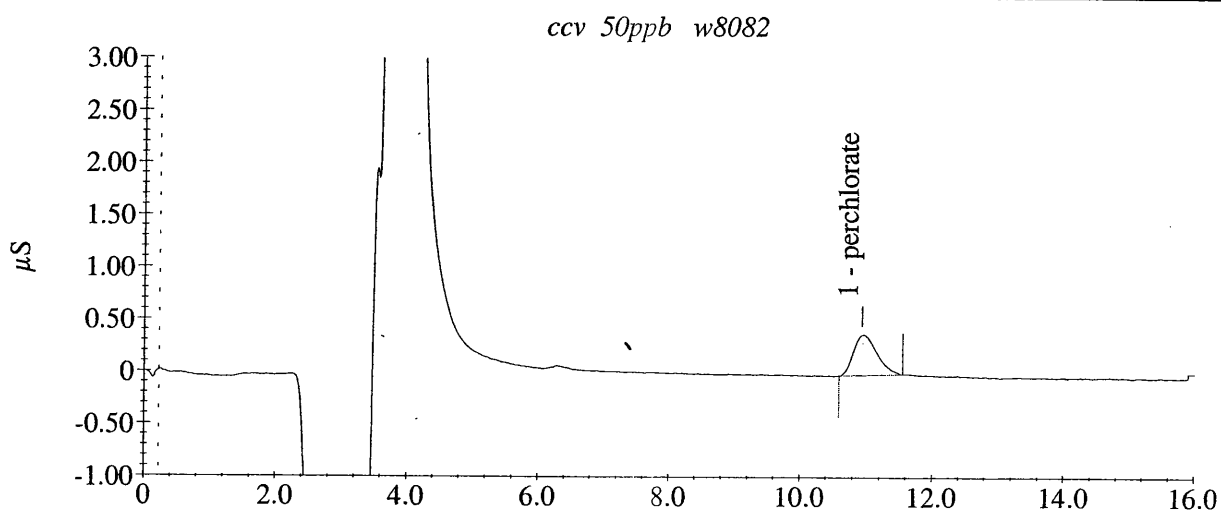
Date Time Collected : 11/04/2003 2:19:30 PM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
1	perchlorate	10.93	56.09	95191.40	3875.41



APCL Perchlorate Analysis Report

Sample Name : ccv 50ppb w8082

Data File Name : C:\DATA\03W5052K\W5052K Q03_022.DXD

Method File Name : c:\peaknet\method\c314-011.met

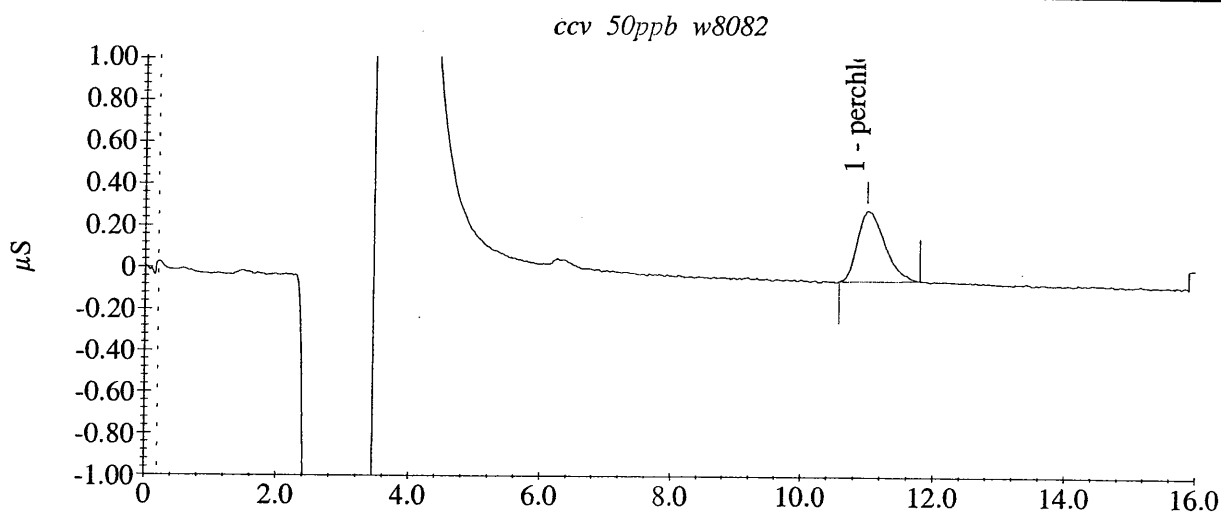
Date Time Collected : 11/04/2003 5:43:31 PM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
1	perchlorate	11.00	57.34	97314.20	3364.34



APCL Perchlorate Analysis Report

Sample Name : ccv 50ppb w8082

Data File Name : C:\DATA\03W5052K\W5052K Q04_033.DXD

Method File Name : c:\peaknet\method\314-011.met

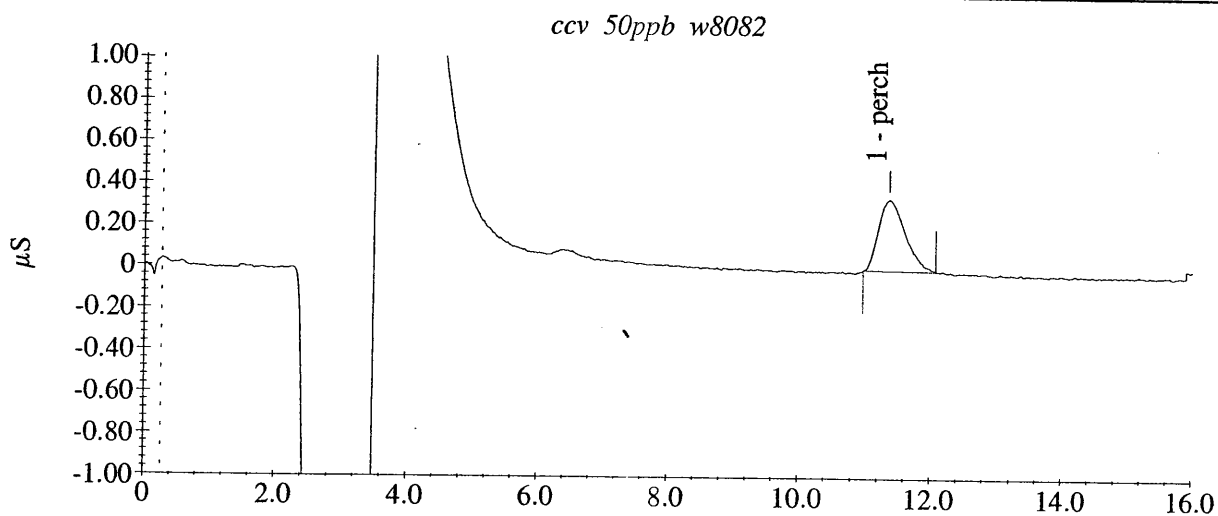
Date Time Collected : 11/04/2003 9:06:05 PM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
1	perchlorate	11.37	56.42	95746.10	3396.40



APCL Perchlorate Analysis Report

Sample Name : ccv 50ppb w8082

Data File Name : C:\DATA\03W5052K\W5052K Q05_034.DXD

Method File Name : c:\peaknet\method\c314-011.met

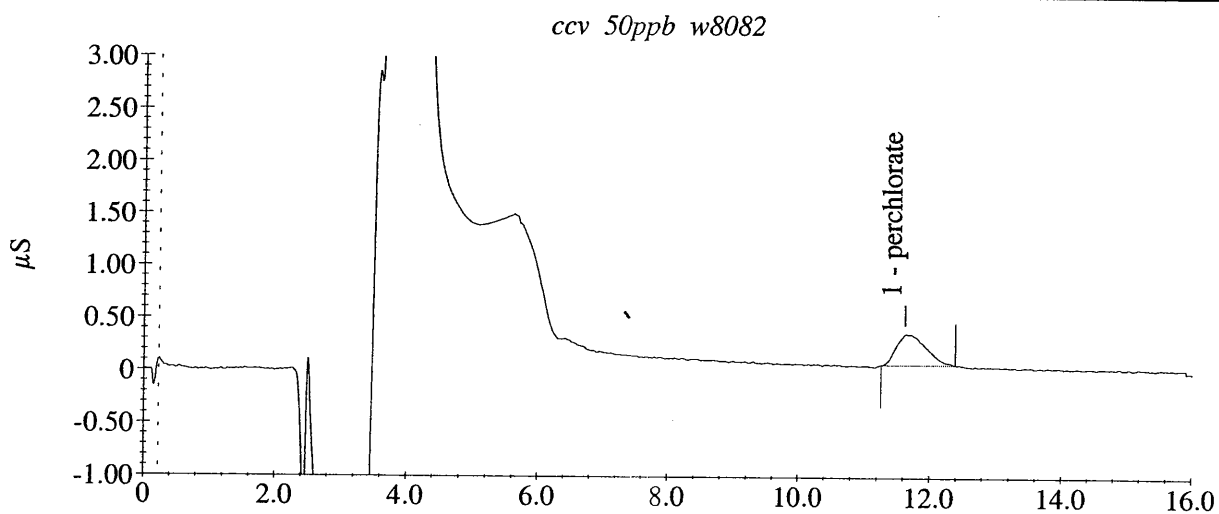
Date Time Collected : 11/05/2003 9:02:04 AM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
1	perchlorate	11.62	55.17	93625.85	2959.96



APCL Perchlorate Analysis Report

Sample Name : ccv 50ppb w8082

Data File Name : C:\DATA\03W5052K\W5052K Q06_038.DXD

Method File Name : c:\peaknet\method\c314-011.met

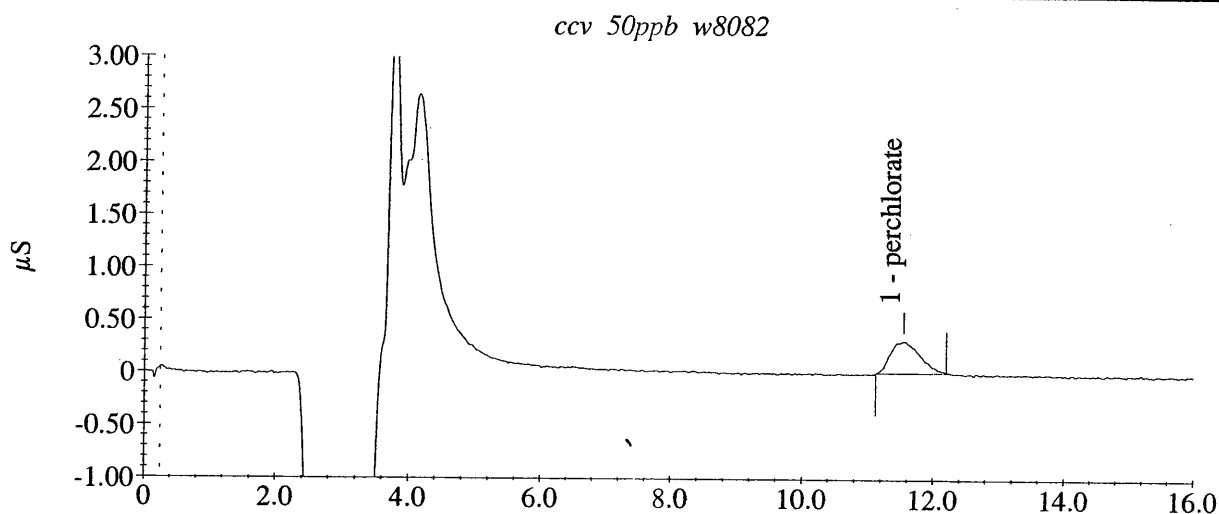
Date Time Collected : 11/05/2003 10:17:29 AM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
1	perchlorate	11.55	56.75	96308.10	3040.03



APCL Perchlorate Analysis Report

Sample Name : Lcsd 25PPB ~~W8033a~~ ^{W 8257} _{W 11/4/03}
Data File Name : C:\DATA\03W5052K\W5052K J01_004.DXD

Method File Name : c:\peaknet\method\c314-011.met

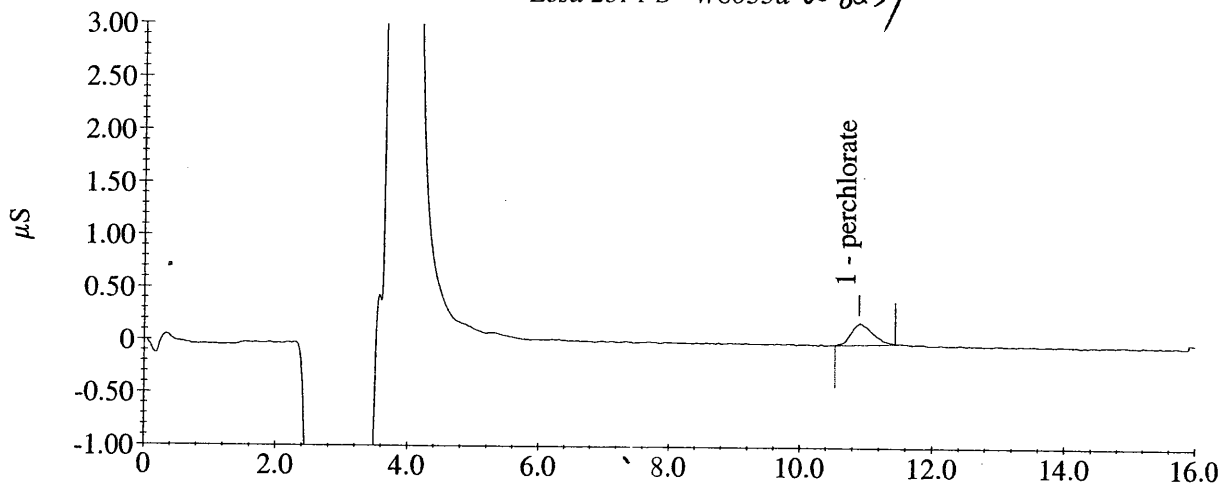
Date Time Collected : 11/04/2003 11:33:19 AM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
1	perchlorate	10.90	27.95	47427.10	2027.26



APCL Perchlorate Analysis Report

Sample Name : lcs 25ppb w8087

Data File Name : C:\DATA\03W5052K\W5052K L01_003.DXD

Method File Name : c:\peaknet\method\c314-011.met

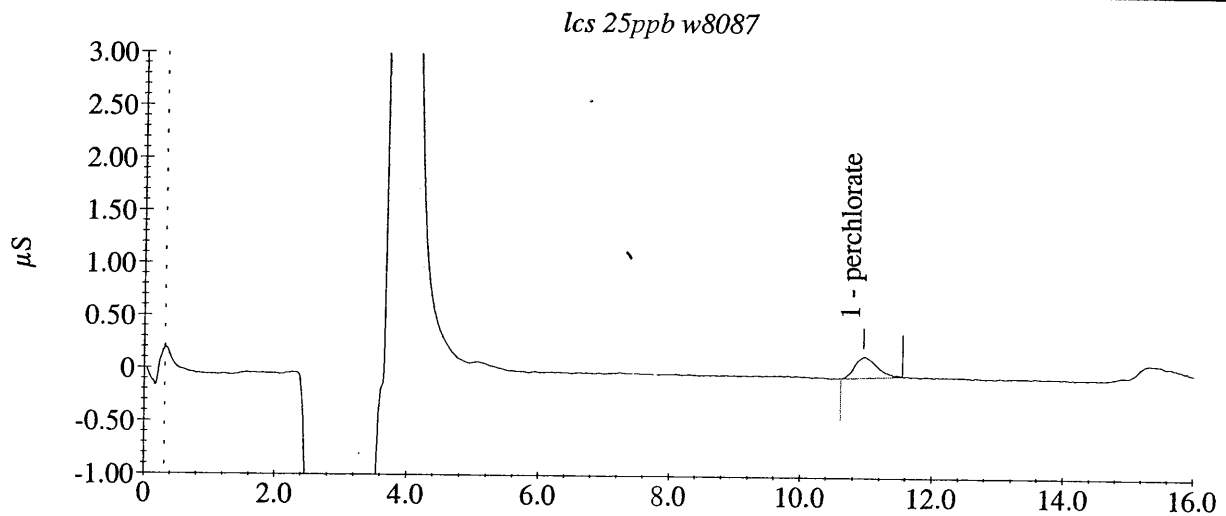
Date Time Collected : 11/04/2003 11:14:50 AM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
1	perchlorate	10.95	27.78	47142.70	1997.78



APCL Perchlorate Analysis Report

Sample Name : ICCS 4ppb w8088

Data File Name : C:\DATA\03W5052K\W5052K ICCS 4PPB_005.DXD

Method File Name : c:\peaknet\method\314-011.met

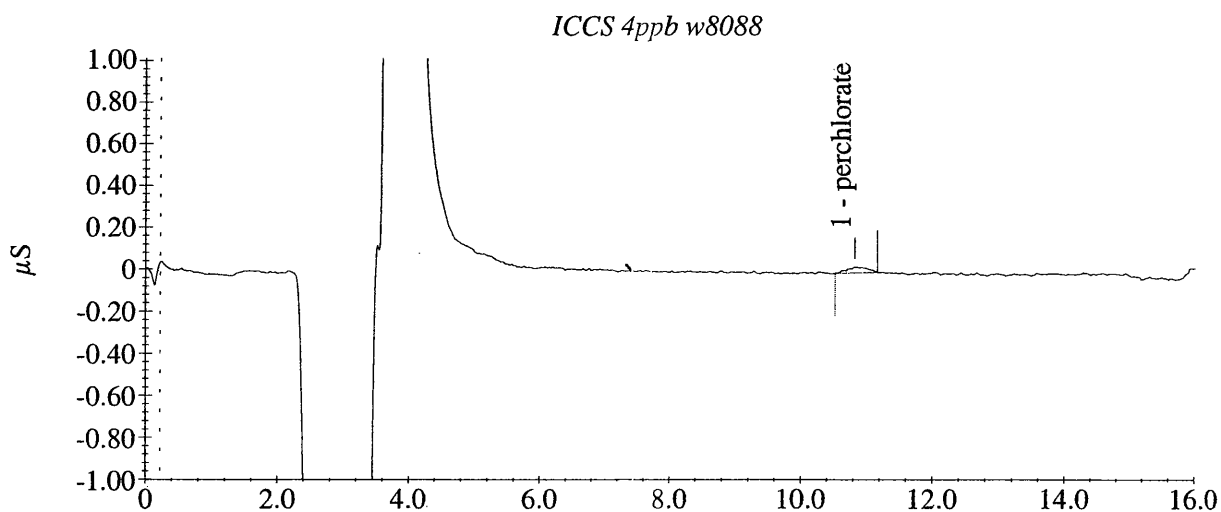
Date Time Collected : 11/04/2003 11:51:50 AM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
1	perchlorate	10.82	3.67	6222.85	280.44



APCL Perchlorate Analysis Report

Sample Name : ##03w5052k ipc 25ppb w8032

Data File Name : C:\DATA\03W5052K\W5052K IPC25PPB_001.DXD

Method File Name : c:\peaknet\method\c314-011.met

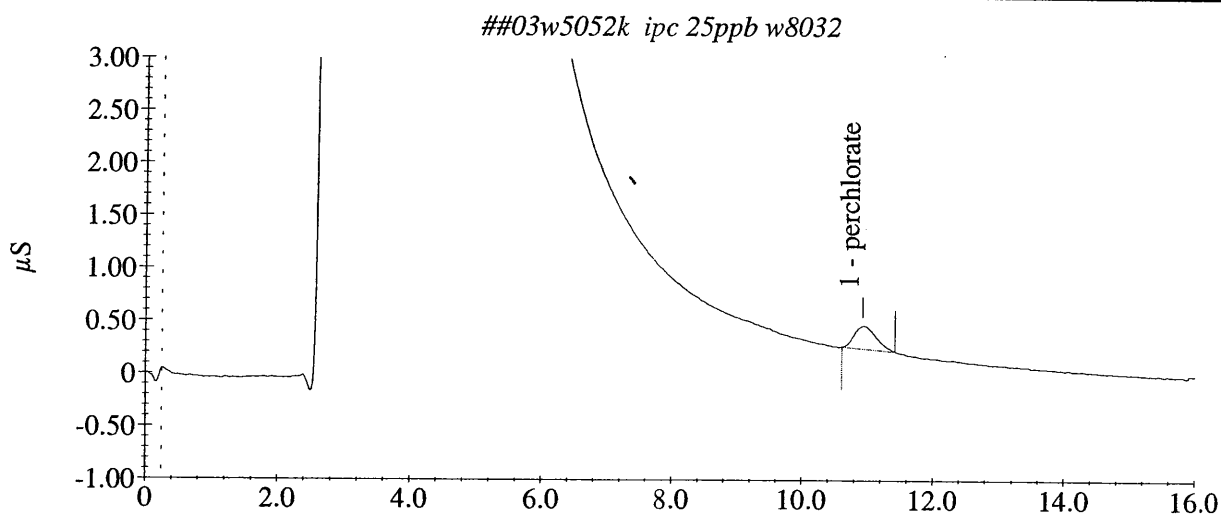
Date Time Collected : 11/04/2003 10:33:48 AM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
1	perchlorate	10.92	29.70	50409.75	2137.28



APCL Perchlorate Analysis Report

Sample Name : ccb

Data File Name : C:\DATA\03W5052K\W5052K CCB_014.DXD

Method File Name : c:\peaknet\method\c314-011.met

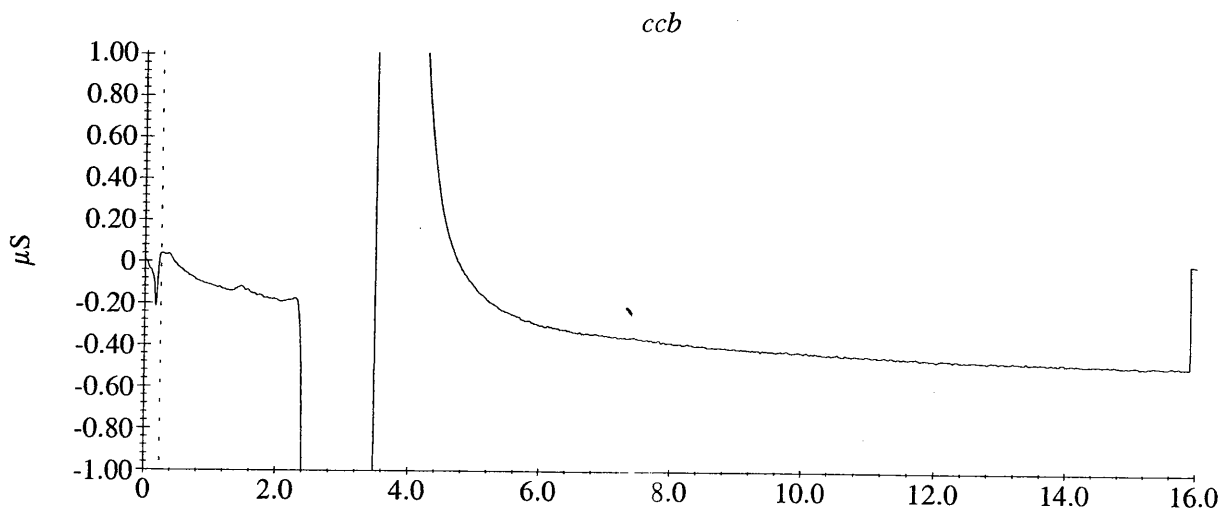
Date Time Collected : 11/04/2003 2:55:25 PM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
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APCL Perchlorate Analysis Report

Sample Name : ccb

Data File Name : C:\DATA\03W5052K\W5052K CCB_035.DXD

Method File Name : c:\peaknet\method\314-011.met

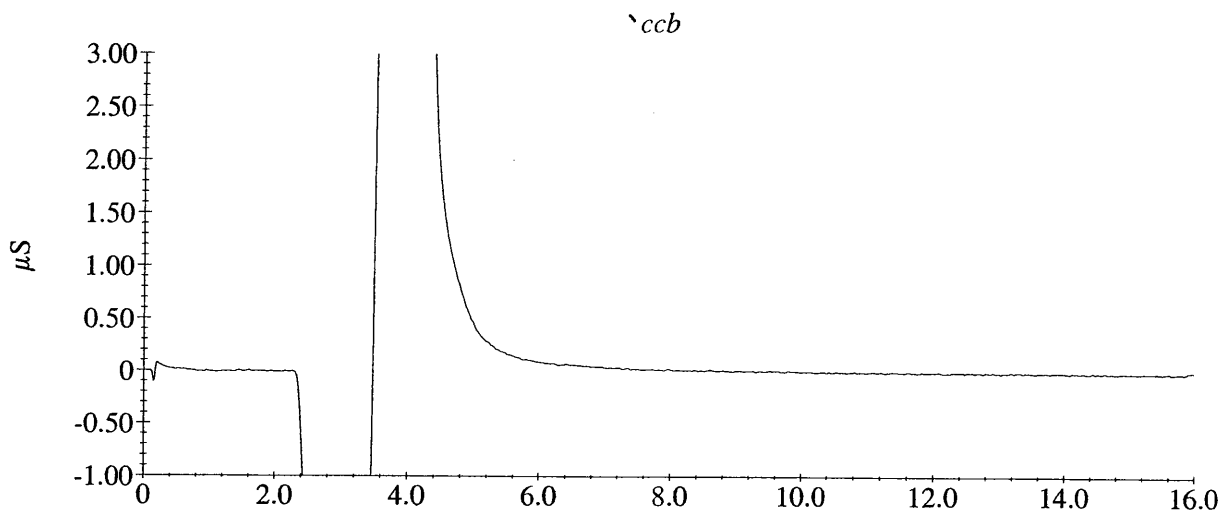
Date Time Collected : 11/05/2003 9:20:34 AM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
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APCL Perchlorate Analysis Report

Sample Name : mb

Data File Name : C:\DATA\03W5052K\W5052K K01_006.DXD

Method File Name : c:\peaknet\method\314-011.met

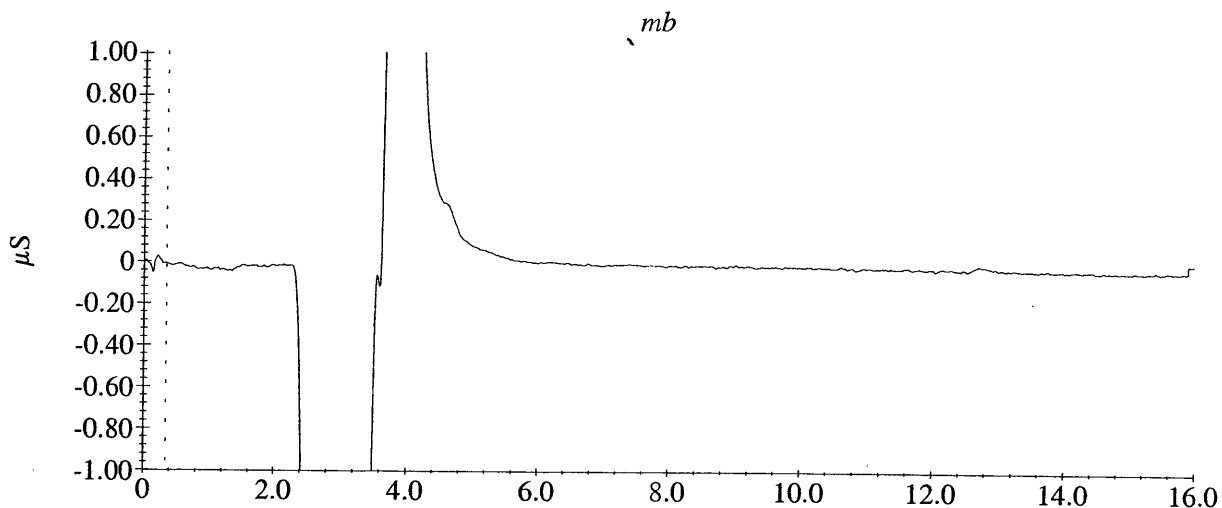
Date Time Collected : 11/04/2003 12:10:17 PM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
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APCL Perchlorate Analysis Report

Sample Name : ccb

Data File Name : C:\DATA\03W5052K\W5052K-CCB_023.DXD

Method File Name : c:\peaknet\method\c314-011.met

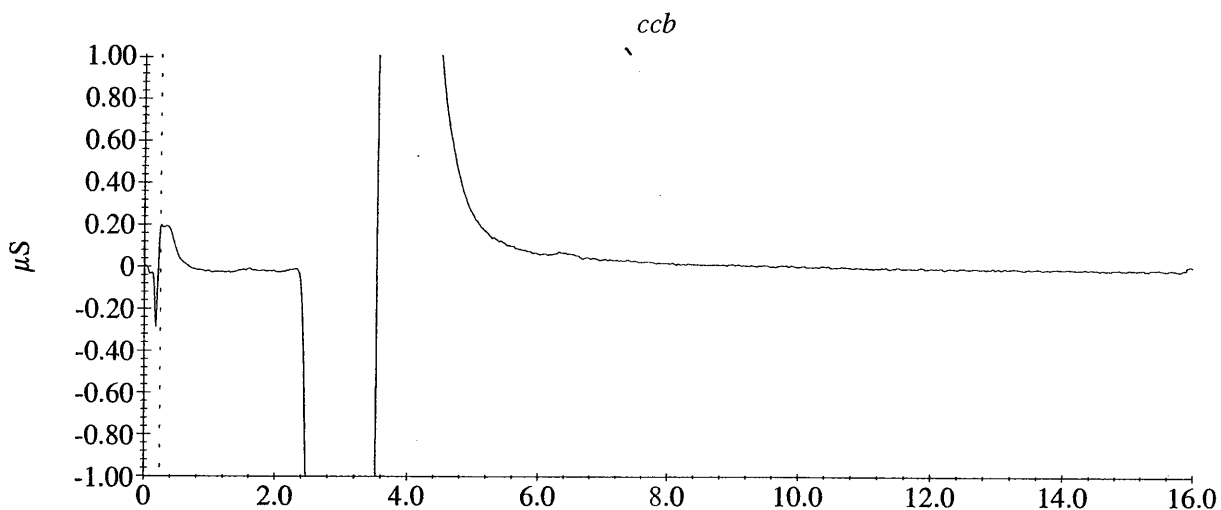
Date Time Collected : 11/04/2003 6:01:57 PM

System Operator : C.W and W.W

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
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Method: C:\PEAKNET\METHOD\E314-011.MET Updated: 03/13/2003 10:39:48 AM Total: 1

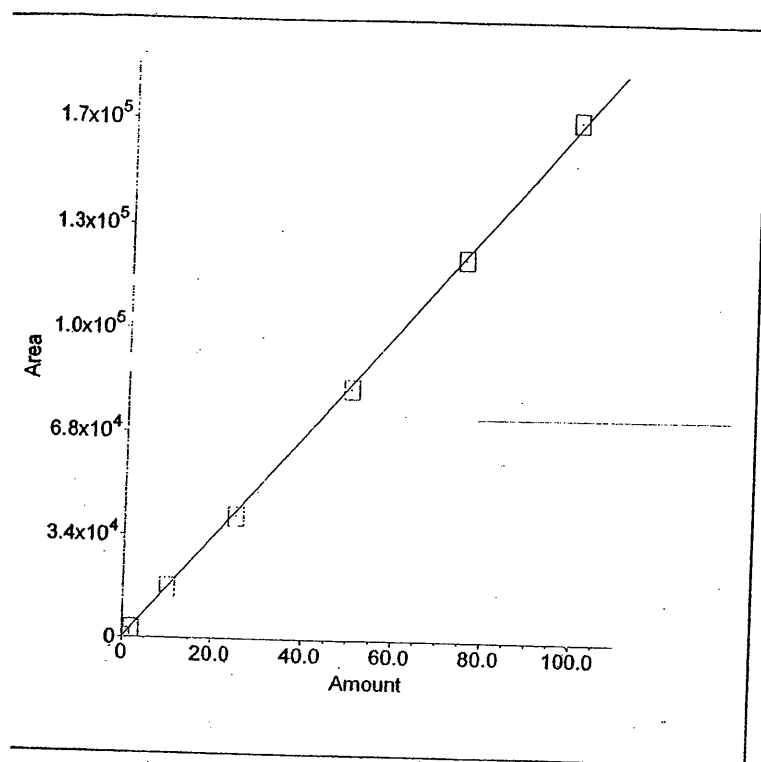
1. Component: perchlorate

Standard: External Fit Type: Linear

Origin: Force Calibration: Area

$r^2 = 0.999492$

Amt = $0.0005893 * \text{Resp} + 0$



Calibration : 7 points , 0, 2, 10, 25, 50, 75, 100 ppb

Analyst C. W

Date 03/12/03

Instrument IC-1c

APCL Perchlorate Analysis Report

Sample Name : cal standard 2ppb W7827a

Data File Name : C:\DATA\E314-011\std-2pb_002.DXD

Method File Name : C:\PEAKNET\METHOD\314-011.met

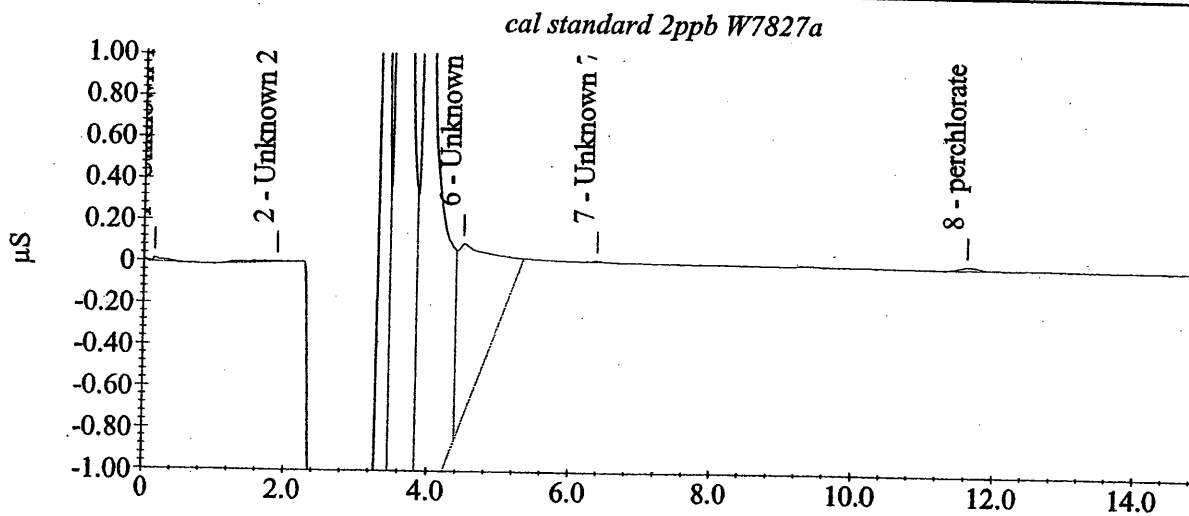
Date Time Collected : 03/12/2003 6:13:12 PM

System Operator : wei wang

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
8	perchlorate	11.62	1.92	2910	164



APCL Perchlorate Analysis Report

Sample Name : cal standard 10ppb W7827c

Data File Name : C:\DATA\E314-011\std-10pb_004.DXD

Method File Name : C:\PEAKNET\METHOD\314-011.met

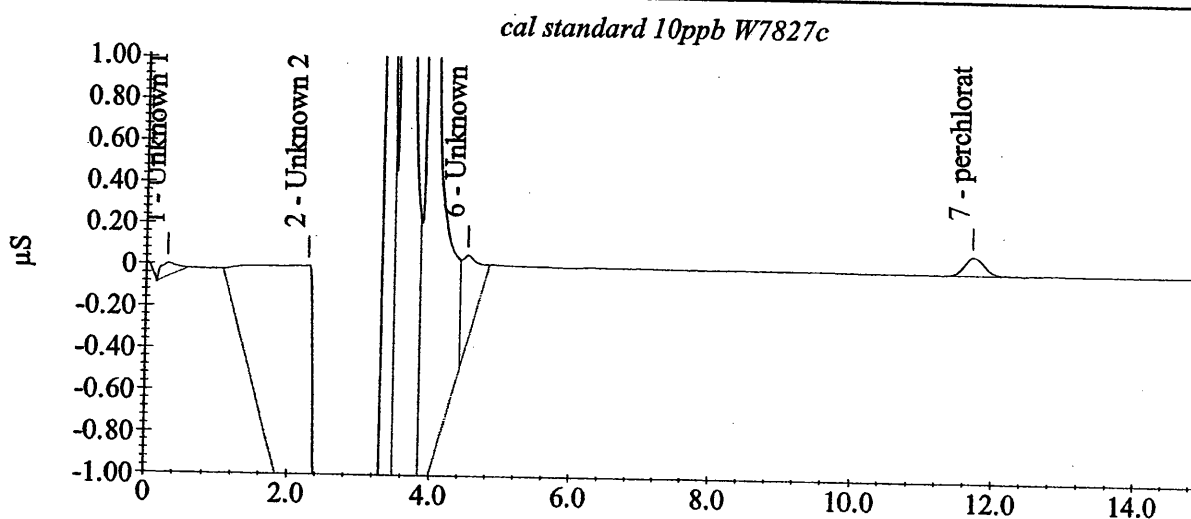
Date Time Collected : 03/12/2003 6:48:21 PM

System Operator : wei wang

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
7	perchlorate	11.70	11.16	16917	879



APCL Perchlorate Analysis Report

Sample Name : icb

Data File Name : C:\DATA\E314-011\ICB_010.DXD

Method File Name : c:\PeakNet\method\E314-011.met

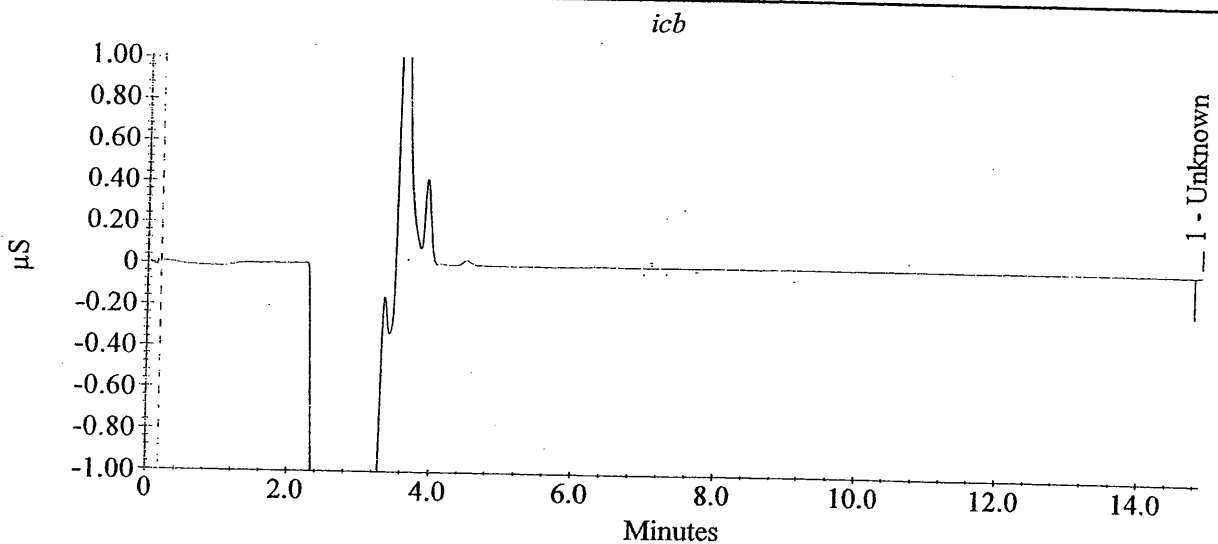
Date Time Collected : 03/12/2003 8:33:51 PM

System Operator : wei wang

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
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APCL Perchlorate Analysis Report

Sample Name : cal standard 75ppb W7827f

Data File Name : C:\DATA\E314-011\std-75pb_007.DXD

Method File Name : C:\PEAKNET\METHOD\c314-011.met

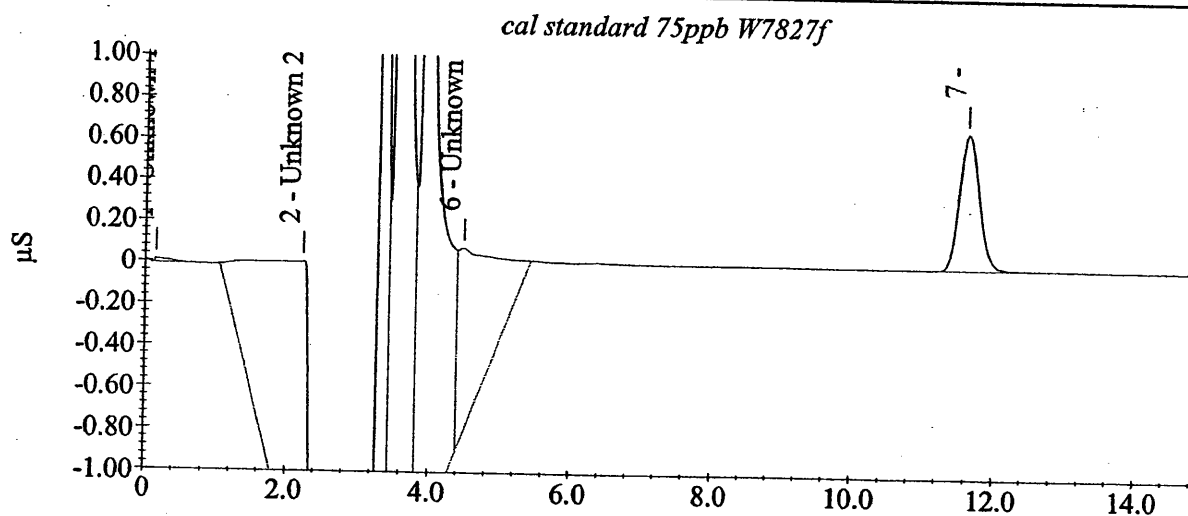
Date Time Collected : 03/12/2003 7:41:05 PM

System Operator : wei wang

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
7	perchlorate	11.62	83.23	126224	6553



APCL Perchlorate Analysis Report

Sample Name : Cal blank

Data File Name : C:\data\E314-011\Mb_001.DXD

Method File Name : c:\peaknet\method\e314-011.met

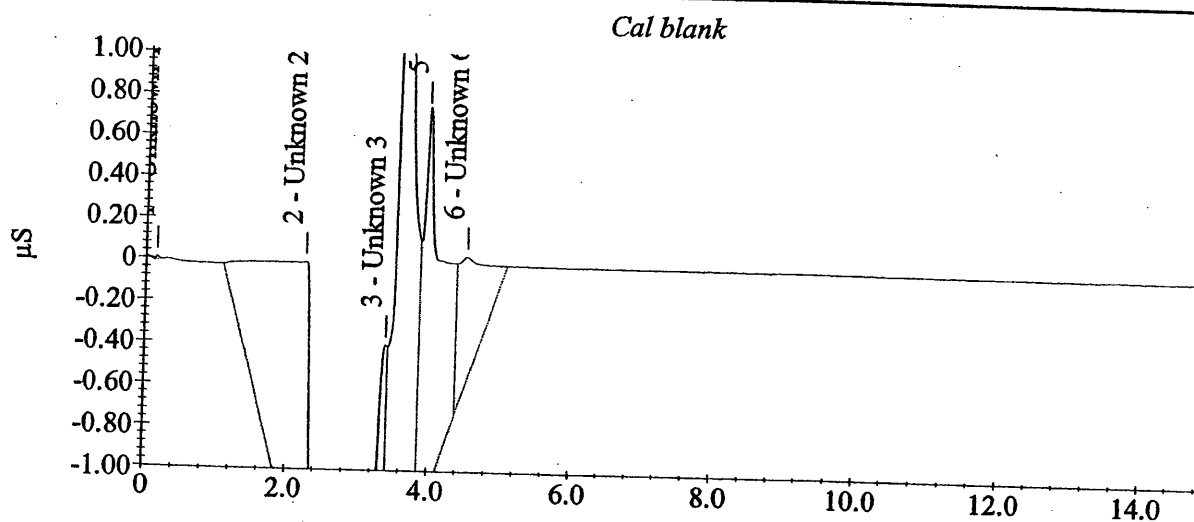
Date Time Collected : 03/12/2003 5:55:39 PM

System Operator : wei wang

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
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APCL Perchlorate Analysis Report

Sample Name : cal standard 50ppb W7827e

Data File Name : C:\DATA\E314-011\std-50pb_006.DXD

Method File Name : C:\PEAKNET\METHOD\314-011.met

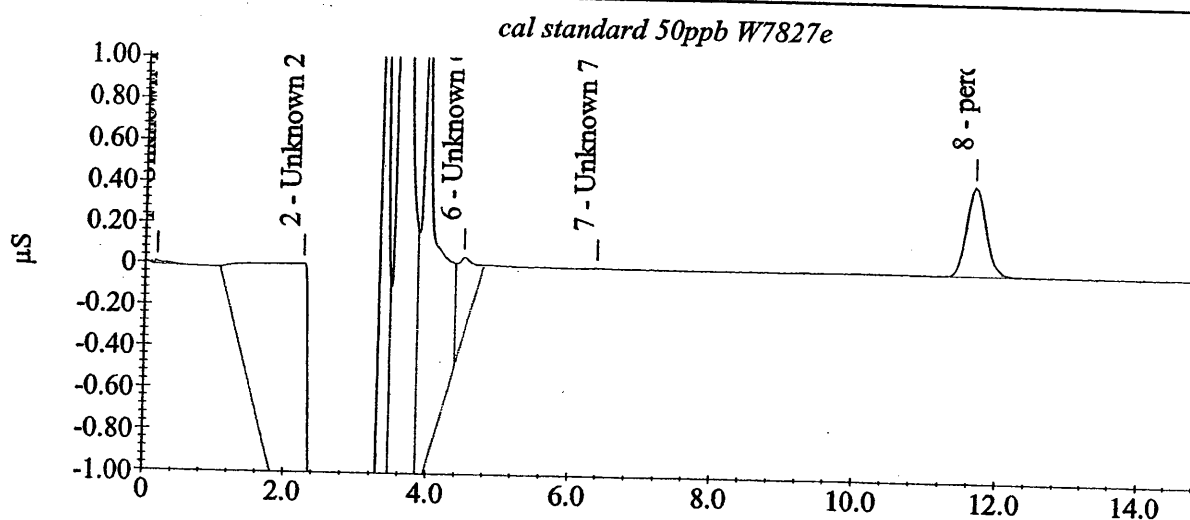
Date Time Collected : 03/12/2003 7:23:30 PM

System Operator : wei wang

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
8	perchlorate	11.67	54.89	83240	4320



APCL Perchlorate Analysis Report

Sample Name : ICV 50 ppb w7828a

Data File Name : C:\DATA\E314-011\icv-50pb_009.DXD

Method File Name : C:\PEAKNET\METHOD\E314-011.met

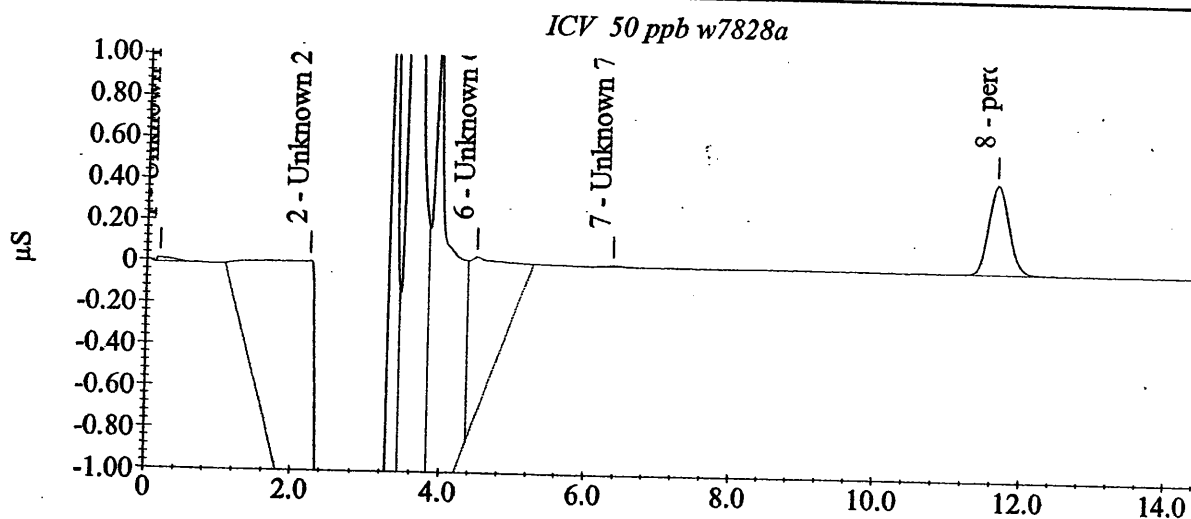
Date Time Collected : 03/12/2003 8:16:15 PM

System Operator : wei wang

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
8	perchlorate	11.65	49.49	83990	4321



APCL Perchlorate Analysis Report

Sample Name : cal standard 100ppb W7827g

Data File Name : C:\DATA\E314-011\std-100pb_008.DXD

Method File Name : C:\PEAKNET\METHOD\314-011.met

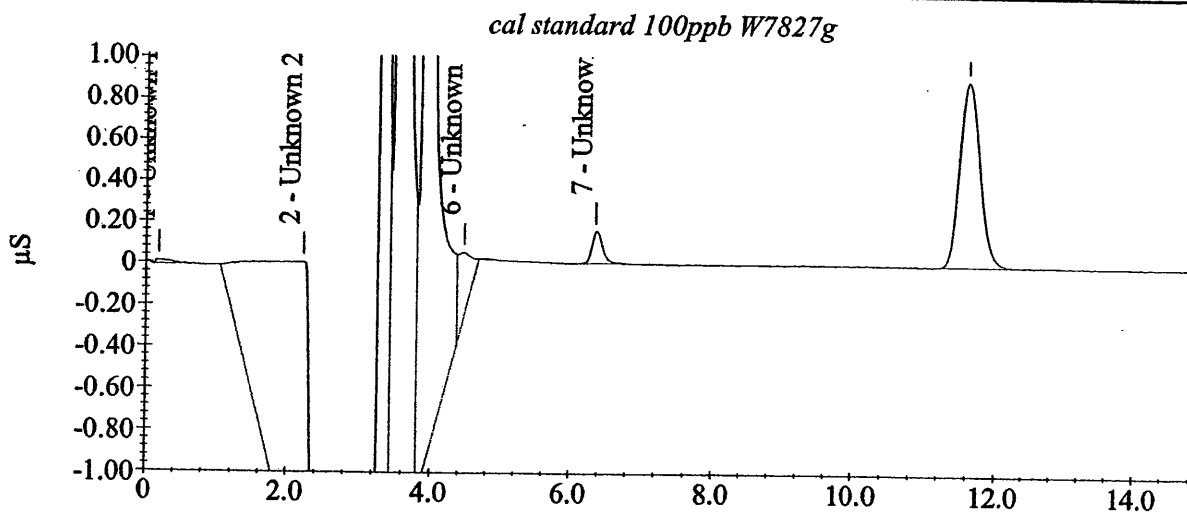
Date Time Collected : 03/12/2003 7:58:39 PM

System Operator : wei wang

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
8	perchlorate	11.62	113.21	171686	8927



APCL Perchlorate Analysis Report

Sample Name : cal standard 25ppb W7827d

Data File Name : C:\DATA\E314-011\std-25pb_005.DXD

Method File Name : C:\PEAKNET\METHOD\c314-011.met

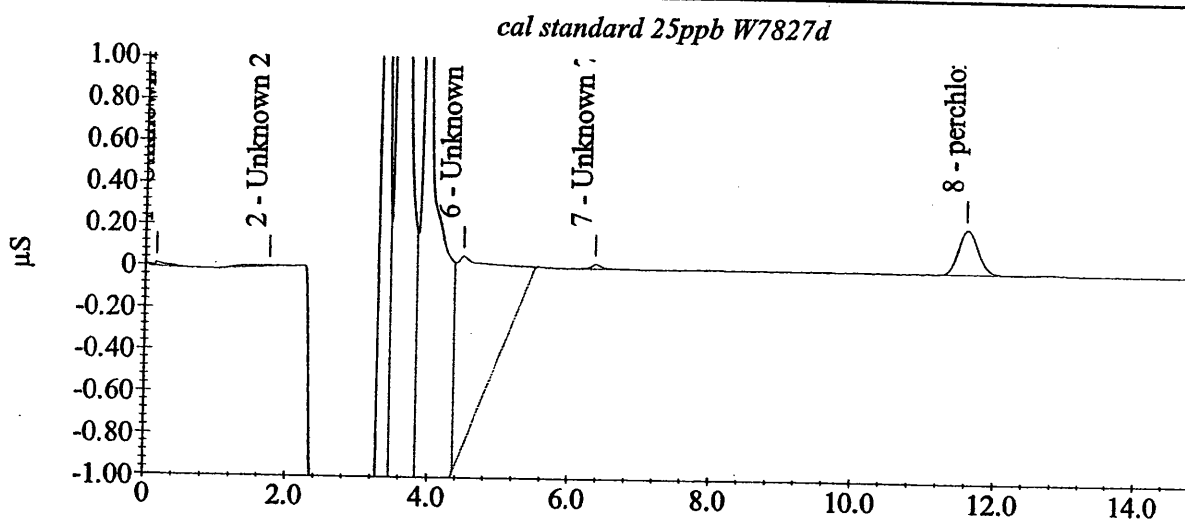
Date Time Collected : 03/12/2003 7:05:54 PM

System Operator : wei wang

Dilution Factor : 1.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
8	perchlorate	11.60	26.84	40702	2125



ine	Sample	Sample Type	Level	Method	Data File	Volume	Dilution
1	Cal blank	Sample		e314-011.met	c:\data\314-011\mb_001.dxd	1	1
2	cal standard 2ppb W7827a	Sample		e314-011.met	c:\data\314-011\std-2pb_002.dxd	1	1
3	cal standard 4ppb W7827b	Sample		e314-011.met	c:\data\314-011\std-4pb_003.dxd	1	1
4	cal standard 10ppb W7827c	Sample		e314-011.met	c:\data\314-011\std-10pb_004.dxd	1	1
5	cal standard 25ppb W7827d	Sample		e314-011.met	c:\data\314-011\std-25pb_005.dxd	1	1
6	cal standard 50ppb W7827e	Sample		e314-011.met	c:\data\314-011\std-50pb_006.dxd	1	1
7	cal standard 75ppb W7827f	Sample		e314-011.met	c:\data\314-011\std-75pb_007.dxd	1	1
8	cal standard 100ppb W7827g	Sample		e314-011.met	c:\data\314-011\std-100pb_008.dxd	1	1
9	ICV 50 ppb w7828a	Sample		e314-011.met	c:\data\314-011\icv-50pb_009.dxd	1	1
10	icb	Sample		e314-011.met	c:\data\314-011\icb_010.dxd	1	1
11	anion 100pm each ,25pb CLO4	Sample		e314-011.met	c:\data\314-011\mct-100_011.dxd	1	1
12	anion 200pm each ,25pb CLO4	Sample		e314-011.met	c:\data\314-011\mct-200_012.dxd	1	1
13	anion 300pm each ,25pb CLO4	Sample		e314-011.met	c:\data\314-011\mct-300_013.dxd	1	1
14	anion 400pm each ,25pb CLO4	Sample		e314-011.met	c:\data\314-011\mct-400_014.dxd	1	1
15	anion 500pm each ,25pb CLO4	Sample		e314-011.met	c:\data\314-011\mct-500_015.dxd	1	1
16	anion 600pm each ,25pb CLO4	Sample		e314-011.met	c:\data\314-011\mct-600_016.dxd	1	1
17	anion 800pm each ,25pb CLO4	Sample		e314-011.met	c:\data\314-011\mct-800_017.dxd	1	1
18	anion 1000pm each ,25pb CLO4	Sample		e314-011.met	c:\data\314-011\mct-1000_018.dxd	1	1
19	anion 400pm each 2pb	Sample		e314-011.met	c:\data\314-011\ipc-2pb_019.dxd	1	1
20	anion 400pm each 4pb	Sample		e314-011.met	c:\data\314-011\ipc-4pb_020.dxd	1	1
21	anion 400pm each 25pb	Sample		e314-011.met	c:\data\314-011\ipc-25pb_021.dxd	1	1
22	ICV 50 ppb	Sample		e314-011.met	c:\data\314-011\ccv-50pb	1	1
23	MDL 4pb	Sample		e314-011.met	c:\data\314-011\mdl-02_023.dxd	1	1
24	MDL 4pb	Sample		e314-011.met	c:\data\314-011\mdl-03_024.dxd	1	1
25	MDL 4pb	Sample		e314-011.met	c:\data\314-011\mdl-04	1	1
26	MDL 4pb	Sample		e314-011.met	c:\data\314-011\mdl-05	1	1
27	MDL 4pb	Sample		e314-011.met	c:\data\314-011\mdl-06	1	1
28	MDL 4pb	Sample		e314-011.met	c:\data\314-011\mdl-07	1	1
29	MDL 4pb	Sample		e314-011.met	c:\data\314-011\mdl-08	1	1
30	IDP and IDA 25pb	Sample		e314-011.met	c:\data\314-011\idap-25pb	1	1
31	IDP and IDA 25pb	Sample		e314-011.met	c:\data\314-011\idap-25pb	1	1
32	IDP and IDA 25pb	Sample		e314-011.met	c:\data\314-011\idap-25pb	1	1
33	IDP and IDA 25pb	Sample		e314-011.met	c:\data\314-011\idap-25pb	1	1
34	IDP and IDA 25pb	Sample		e314-011.met	c:\data\314-011\idap-25pb	1	1
35	IDP and IDA 25pb	Sample		e314-011.met	c:\data\314-011\idap-25pb	1	1
36	IDP and IDA 25pb	Sample		e314-011.met	c:\data\314-011\idap-25pb	1	1
37	MCT anion 800pm each, 25pbCLO4	Sample		e314-011.met	c:\data\314-011\ipc-25pb	1	1
38	MCT anion 800pm each, 25pbCLO4	Sample		e314-011.met	c:\data\314-011\ipc-25pb	1	1
39	MCT anion 800pm each, 4pbCLO4	Sample		e314-011.met	c:\data\314-011\ipc-4pb	1	1
40	MCT anion 800pm each, 4pbCLO4	Sample		e314-011.met	c:\data\314-011\ipc-4pb	1	1
41	MDL 20pb soil	Sample		e314-011.met	c:\data\314-011\mdl-s01	1	5
42	MDL 20pb soil	Sample		e314-011.met	c:\data\314-011\mdl-s02	1	5
43	MDL 20pb soil	Sample		e314-011.met	c:\data\314-011\mdl-s03	1	5
44	MDL 20pb soil	Sample		e314-011.met	c:\data\314-011\mdl-s04	1	5
45	MDL 20pb soil	Sample		e314-011.met	c:\data\314-011\mdl-s05	1	5
46	MDL 20pb soil	Sample		e314-011.met	c:\data\314-011\mdl-s06	1	5
47	MDL 20pb soil	Sample		e314-011.met	c:\data\314-011\mdl-s07	1	5
48	standard 25ppb W7827d	Sample		e314-011.met	c:\data\314-011\std-25pb	1	1
49	anion 100pm each,4pb CLO4	Sample		e314-011.met	c:\data\314-011\am-100-4pb	1	1
50	anion 200pm each ,4pb CLO4	Sample		e314-011.met	c:\data\314-011\am-200-4pb	1	1
51	anion 300pm each ,4pb CLO4	Sample		e314-011.met	c:\data\314-011\am-300-4pb	1	1
52	anion 100pm each,2pb CLO4	Sample		e314-011.met	c:\data\314-011\am-100-2pb	1	1
53	anion 200pm each,2pb CLO4	Sample		e314-011.met	c:\data\314-011\am-200-2pb	1	1
54	anion 300pm each,2pb CLO4	Sample		e314-011.met	c:\data\314-011\am-300-2pb	1	1
55	1982-01 B S.C 4450us/cm	Sample		e314-011.met	c:\data\314-011\1982-01	1	1
56	1982-01 B S.C 4450us/cm	Sample		e314-011.met	c:\data\314-011\1982-01	1	2
57	1982-02 f=10	Sample		e314-011.met	c:\data\314-011\1982-02_057.dxd	1	10
58		Sample		aastopcl.met		1	1

Line	Weight	Int. Std.	Comment
1	1	1	
2	1	1	
3	1	1	
4	1	1	
5	1	1	
6	1	1	
7	1	1	
8	1	1	
9	1	1	
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56	1	1	
57	1	1	
58	1	1	

Default Method Path: C:\PEAKNET\METHOD

Default Data Path: C:\DATA\03W1286K

Comment:

Remark:

Condition information:

1. Column

Separator column: AS16 4mm

Guard column: AS16 4mm

2. Eluent: NaOH 38mM

3. Flow rate: 1.2mL/min

4. Suppressor: ASRS-ULTRA 4mm

5. Detector: CD20

6. Analyst: Charles Wu and Wei Wang

7. Date: 03 / 12 / 2003

8. Instrument: IC-K DX-500 Dionex