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 No:	04.4428.10	Anal. Method	7196
Project ID:	JPL	Service ID:	35852	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
03-5852-1	DUPE-1-4Q03	Water	10/28/03	10/28/03	10/28/03	03W4979	mg/L	0.01	<0.01	U
03-5852-2	EB-5-10-28-03	Water	10/28/03	10/28/03	10/28/03	03W4979	mg/L	0.01	<0.01	U
03-5852-3	MW-24-1	Water	10/28/03	10/28/03	10/28/03	03W4979	mg/L	0.01	<0.01	U
03-5852-4	MW-24-2	Water	10/28/03	10/28/03	10/28/03	03W4979	mg/L	0.01	<0.01	U
03-5852-5	MW-24-3	Water	10/28/03	10/28/03	10/28/03	03W4979	mg/L	0.01	<0.01	U
03-5852-6	MW-24-4	Water	10/28/03	10/28/03	10/28/03	03W4979	mg/L	0.01	<0.01	U
03-5852-7	MW-24-5	Water	10/28/03	10/28/03	10/28/03	03W4979	mg/L	0.01	<0.01	U
03W4979-MB-01	03W4979-MB-01	Water	10/28/03	10/28/03	10/28/03	03W4979	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:	35852	Collected by:	Jr

Component Name: Perchlorate
CAS No:

Lab ID	Sample ID	Matrix	Coll. Date	Rcv Date	Anal. Date	Batch	Unit	RL	Result	Q
03-5852-1	DUPE-1-4Q03	Water	10/28/03	10/28/03	10/29/03	03W4987	µg/L	4	<4	U
03-5852-2	EB-5-10-28-03	Water	10/28/03	10/28/03	10/29/03	03W4987	µg/L	4	<4	U
03-5852-3	MW-24-1	Water	10/28/03	10/28/03	10/29/03	03W4987	µg/L	200	2760	
03-5852-4	MW-24-2	Water	10/28/03	10/28/03	10/29/03	03W4987	µg/L	20	155	
03-5852-5	MW-24-3	Water	10/28/03	10/28/03	10/29/03	03W4987	µg/L	4	<4	U
03-5852-6	MW-24-4	Water	10/28/03	10/28/03	10/29/03	03W4987	µg/L	4	<4	U
03-5852-7	MW-24-5	Water	10/28/03	10/28/03	10/29/03	03W4987	µg/L	4	<4	U
03W4987-MB-01	03W4987-MB-01	Water	10/29/03	10/29/03	10/29/03	03W4987	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:	35852
Project ID:	JPL	Project No:	04.4428.10	Sample Matrix:	Water
		Batch No:	03W4987		
LCS Filename:	-	Date Analyzed:	102903	Time Analyzed:	
LCSD Filename:	-	Date Analyzed:	102903	Time Analyzed:	

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
PERCHLORATE	µg/L	25	0	28.6	114	80-120
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
PERCHLORATE	µg/L	25	27.8	111	3	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:	35852
Project ID:	JPL	Project No:	04.4428.10	Sample Matrix:	Water
		Batch No:	03W4987		
MS Filename:	-	Date Analyzed:	102903	Time Analyzed:	
MSD Filename:	-	Date Analyzed:	102903	Time Analyzed:	
MS Sample No:	**MW-19-3**	Sample Lab ID:	03-5874-9		

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
PERCHLORATE	µg/L	25	5.1	33.4	113	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
PERCHLORATE	µg/L	25	36.3	125	10	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:	35852
Project ID:	JPL	Project No:	04.4428.10	Sample Matrix:	Water
		Batch No:	03W4979		
LCS Filename:	-	Date Analyzed:	102803	Time Analyzed:	13:20
LCSD Filename:	-	Date Analyzed:	102803	Time Analyzed:	13:20

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
CHROMIUM (VI)	mg/L	0.25	0	0.227	91	80-115
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
CHROMIUM (VI)	mg/L	0.25	0.235	94	3	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:	35852
Project ID:	JPL	Project No:	04.4428.10	Sample Matrix:	Water
		Batch No:	03W4979		
MS Filename:	-	Date Analyzed:	102803	Time Analyzed:	13:20
MSD Filename:	-	Date Analyzed:	102803	Time Analyzed:	13:20
MS Sample No:	**DUPE-1-4Q03**	Sample Lab ID:	03-5852-1		

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
CHROMIUM (VI)	mg/L	0.25	0	0.222	89	78-115
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
CHROMIUM (VI)	mg/L	0.25	0.220	88	1	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: _____

_____

6A

INITIAL CALIBRATION DATA

Lab Name: Applied P & Ch Lab Contract: 35852

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

Concentration (mg/L)	0.000	0.0125	0.050	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: 35852

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	03W4987	µg/L	50	57.3	115	15	√	85-115	10/29/2003
	Perchlorate	314.0	03W4987	µg/L	50	56.2	112	12	√	85-115	10/29/2003
	Perchlorate	314.0	03W4987	µg/L	50	55.9	112	12	√	85-115	10/29/2003
	Perchlorate	314.0	03W4987	µg/L	50	57.5	115	15	√	85-115	10/29/2003
2	Chromium (VI)	7196	03W4979	mg/L	0.25	0.235	94	-6	√	90-110	10/28/2003
	Chromium (VI)	7196	03W4979	mg/L	0.25	0.249	100	0	√	90-110	10/28/2003

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Chromium (VI) (7196) Worksheet

10

ch #CBW4979 Matrix: W

[Holding Time: 24 hours!!]

Test Date: 10/28/03 Analyst: [illegible]

Test Time: 13:20 SOP: G-2

Lot #: Reagent Water _____ Diphenylcazide solution _____

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-	× / = mg/L			Least Square [RF]=	Cal. Code:
STD-2	W-	× / = mg/L			Average $\overline{RF}$=	
STD-3	W-	× / = mg/L			C.C.=0.9999 (≥ 0.995)	
STD-4	W-	× / = mg/L			RSD= % (≤ 15%)	
STD-5	W-	× / = mg/L			Ref. page	
STD-6	W-	× / = mg/L			A=-0.001+0.8446C	

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 $C' = A/\overline{RF}$	C (Sample) $C = f_1 f_2 C'$	Anomaly Note
CCV	Lot: W-7757	Expected Conc.: × / = 0.1 mg/L			0.198	0.235 mg/L	REC. 94 %	90-110 %
Method Blank	Bl. Lot: T118		/X_0 = 1	95.0/ =	0.000	mg/L	0.00 ppm	
LCS1	Bl. Lot:		/X_0 = 1	95.0/ =	0.191	mg/L	0.227 ppm	
Sample-1	9852-1		/X_0 = 1	95.0/ =	0.003	mg/L	0.005 ppm	
MS on S-1	1		/X_0 = 1	95.0/ =	0.187	mg/L	0.222 ppm	
MSD on S-1	1		/X_0 = 1	95.0/ =	0.185	mg/L	0.220 ppm	
Sample 2	2		/X_0 = 1	95.0/ =	0.002	mg/L	0.003 ppm	
Sample 3	3		/X_0 = 1	95.0/ =	0.002	mg/L	0.003 ppm	
Sample 4	4		/X_0 = 1	95.0/ =	0.002	mg/L	0.003 ppm	
Sample 5	5		/X_0 = 1	95.0/ =	0.001	mg/L	0.002 ppm	
Sample 6	6		/X_0 = 1	95.0/ =	0.002	mg/L	0.003 ppm	
Sample 7	7		/X_0 = 1	95.0/ =	0.003	mg/L	0.005 ppm	
Sample 8			/X_0 = 1	95.0/ =		mg/L	ppm	
Sample 9			/X_0 = 1	95.0/ =		mg/L	ppm	
Sample 10			/X_0 = 1	95.0/ =		mg/L	ppm	
Blank	Lot:		/X_0 = 1	95.0/ 10/28/03		mg/L	ppm	
LCS2	Bl. Lot: T118		/X_0 = 1	95.0/ =	0.198	mg/L	0.235 ppm	
Sample 11			/X_0 = 1	95.0/ =		mg/L	ppm	
Sample 12			/X_0 = 1	95.0/ =		mg/L	ppm	
Sample 13			/X_0 = 1	95.0/ =		mg/L	ppm	
Sample 14			/X_0 = 1	95.0/ =		mg/L	ppm	
Sample 15			/X_0 = 1	95.0/ =		mg/L	ppm	
Sample 16			/X_0 = 1	95.0/ =		mg/L	ppm	
Sample 17			/X_0 = 1	95.0/ =		mg/L	ppm	
Sample 18			/X_0 = 1	95.0/ 10/28/03 =		mg/L	ppm	
Sample 19			/X_0 = 1	95.0/ =		mg/L	ppm	
Sample 20			/X_0 = 1	95.0/ =		mg/L	ppm	
MTX Dup.	[illegible] 0.2[illegible]		/X_0 = 1	95.0/ =	0.210	0.249 mg/L	ppm	

Type	STD Lot #	$C_{STD(\mu g/mL)} \times V_{STD(mL)} / X_{(g \text{ or } mL)} = T$	Spike Rec.	Ctl Limit (W/S)
MS	W-7757	× / = 0.25 ppm	%	80-120 %/80-120 %
MSD	W- "	× / = ppm	%	.. ..
LCS	W-7852	× / = ppm	%	80-120 %/80-120 %
LCSD	W- "	× / = ppm	%	.. ..

PQL/MDL (in ppm)	
PQL(w)	0.01
PQL(s)	0.05
MDL(w)	0.005
MDL(s)	0.025

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Chromium (VI) (7196) Worksheet

Batch # P2 Matrix: W&GS [Holding Time: 24 hours!!] Test Date: 7/28/03 Analyst: [illegible]

Lot #: Reagent Water ______ Diphenylcazide 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-7757	× / =0.00 mg/L	0.000		Least Square [RF]=	Cal. Code:
STD-2	W-	× / =0.01 mg/L	0.007		Average $\bar{RF}$=	
STD-3	W-	× / =0.025 mg/L	0.017		C.C.= 0.999 (≥ 0.995)	
STD-4	W-	× / =0.125 mg/L	0.107		RSD= % (≤ 15%)	
STD-5	W-	× / =0.250 mg/L	0.212		Ref. page	
STD-6	W-	× / =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 $C'=A/\bar{RF}$	C (Sample) $C=f_1 f_2 C'$	Anom. Note
CCV	Lot: W-7853	Expected Conc.:	×	/ =0.25 mg/L	0.218	0.259 mg/L	REC. %	90-110
Method Blank	Bl. Lot:		/X_0 =	95.0/ =	0.000	0.000 mg/L	ppm	
LCS1	Bl. Lot:		/X_0 =	95.0/ =	0.210	0.250 mg/L	ppm	
Sample-1	4177-37	1ml→100ml	/X_0 = 1	95.0/ = 2	0.290	0.687 mg/L	ppm	
MS on S-1	37	0.5ml→100ml	/X_0 =	95.0/ = 2	0.287	0.682 mg/L	report	
MSD on S-1	4175-15	10.0g	50.0/X_0 = 5	95.0/ = 10	0.050	3.04 mg/L	ppm	
Sample 2	15	Y	/X_0 =	95.0/ = 2	0.247	2.94 mg/L	report	
Sample 3			/X_0 =	95.0/ =		mg/L	ppm	
Sample 4			/X_0 =	95.0/ =		mg/L	ppm	
Sample 5			/X_0 =	95.0/ =		mg/L	ppm	
Sample 6			/X_0 =	95.0/ =		mg/L	ppm	
Sample 7			/X_0 =	95.0/ =		mg/L	ppm	
Sample 8			/X_0 =	95.0/ =		mg/L	ppm	
Sample 9			/X_0 =	95.0/ =		mg/L	ppm	
Sample 10			/X_0 =	95.0/ =		mg/L	ppm	
Blank	Lot:		/X_0 =	95.0/ =		mg/L	ppm	
LCS2	Bl. Lot:		/X_0 =	95.0/ =		mg/L	ppm	
Sample 11			/X_0 =	95.0/ =		mg/L	ppm	
Sample 12			/X_0 =	95.0/ =		mg/L	ppm	
Sample 13			/X_0 =	95.0/ =		mg/L	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.	[illegible]		/X_0 =	95.0/ =	0.218	0.259 mg/L	ppm	

Type	STD Lot #	$C_{STD}(\mu g/mL) \times V_{STD}(mL)/X(g\ or\ mL) = T$	Spike Rec.	Ctl Limit (W/S)
MS	W-	× / = ppm	%	80-120 %/80-120 %
MSD	W-	× / = ppm	%	.. ..
LCS	W-	× / = ppm	%	80-120 %/80-120 %
LCSD	W-	× / = ppm	%	.. ..

PQL/MDL (in ppm)	
PQL(w)	0.01
PQL(s)	0.05
MDL(w)	0.005
MDL(s)	0.025

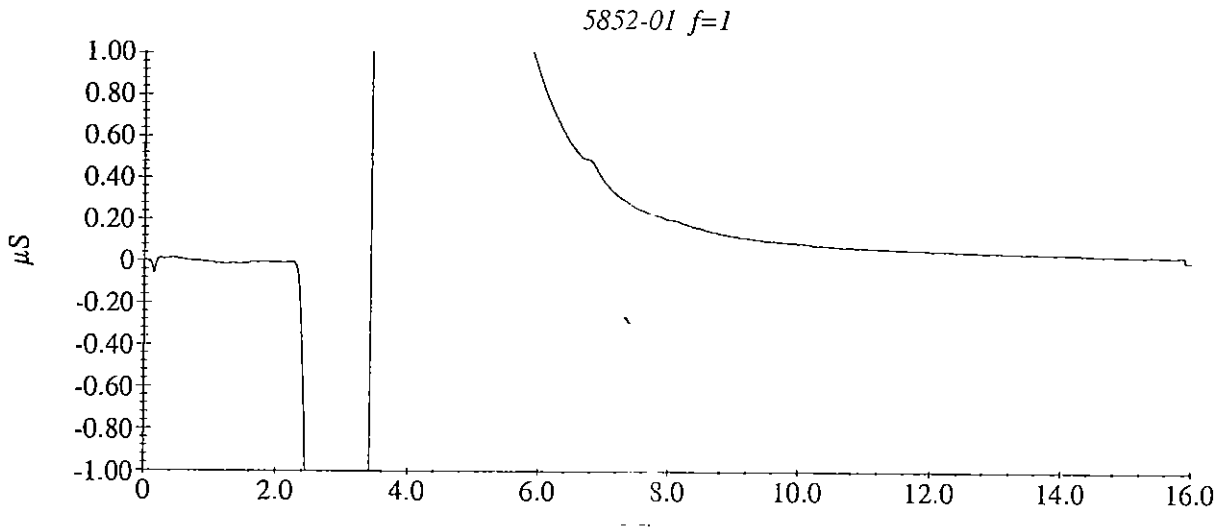
APCL Perchlorate Analysis Report

Sample Name : 5852-01 f=1
Data File Name : C:\DATA\03W4987K\5852-01_008.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 10/29/2003 12:05:28 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



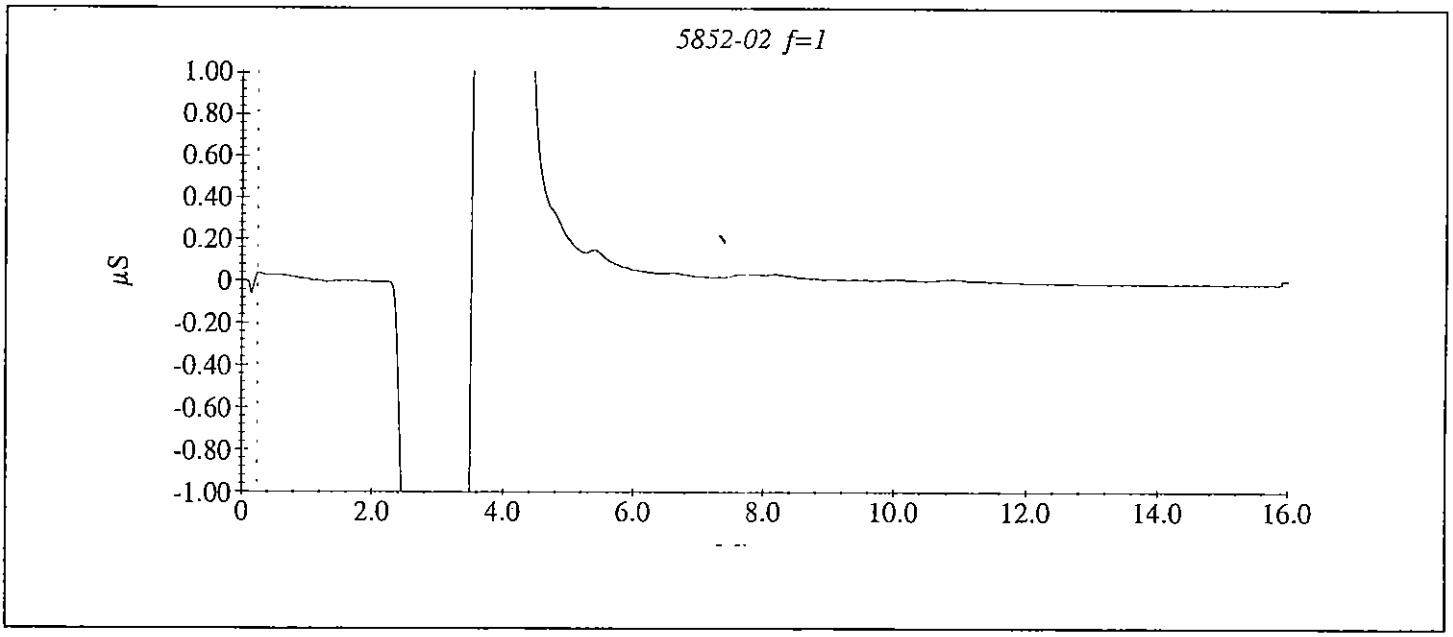
APCL Perchlorate Analysis Report

Sample Name : 5852-02 f=1
Data File Name : C:\DATA\03W4987K\5852-02_009.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 10/29/2003 12:23:52 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



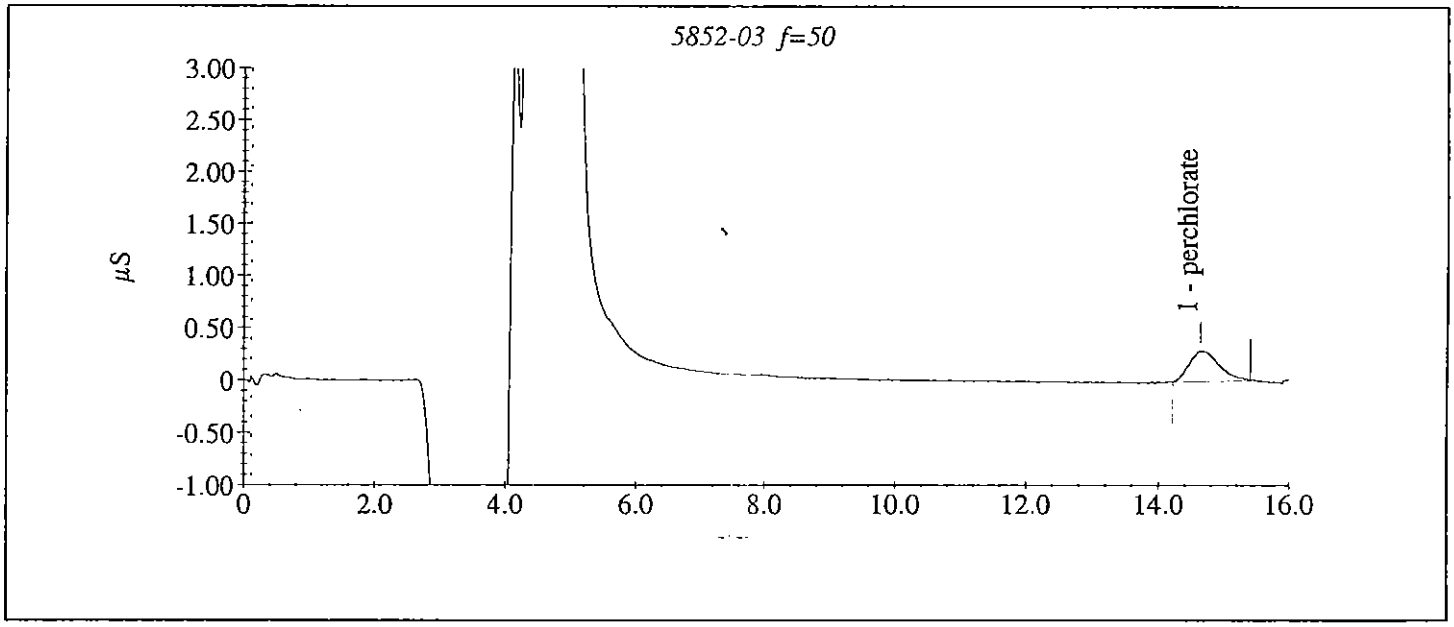
APCL Perchlorate Analysis Report

Sample Name : 5852-03 f=50
Data File Name : C:\DATA\03W4987K\5852-03A_017.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 10/29/2003 2:51:16 PM
System Operator : C.W and W.W
Dilution Factor : 50.00

Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height
1	perchlorate	14.63	2764.85	93842.10	2906.41



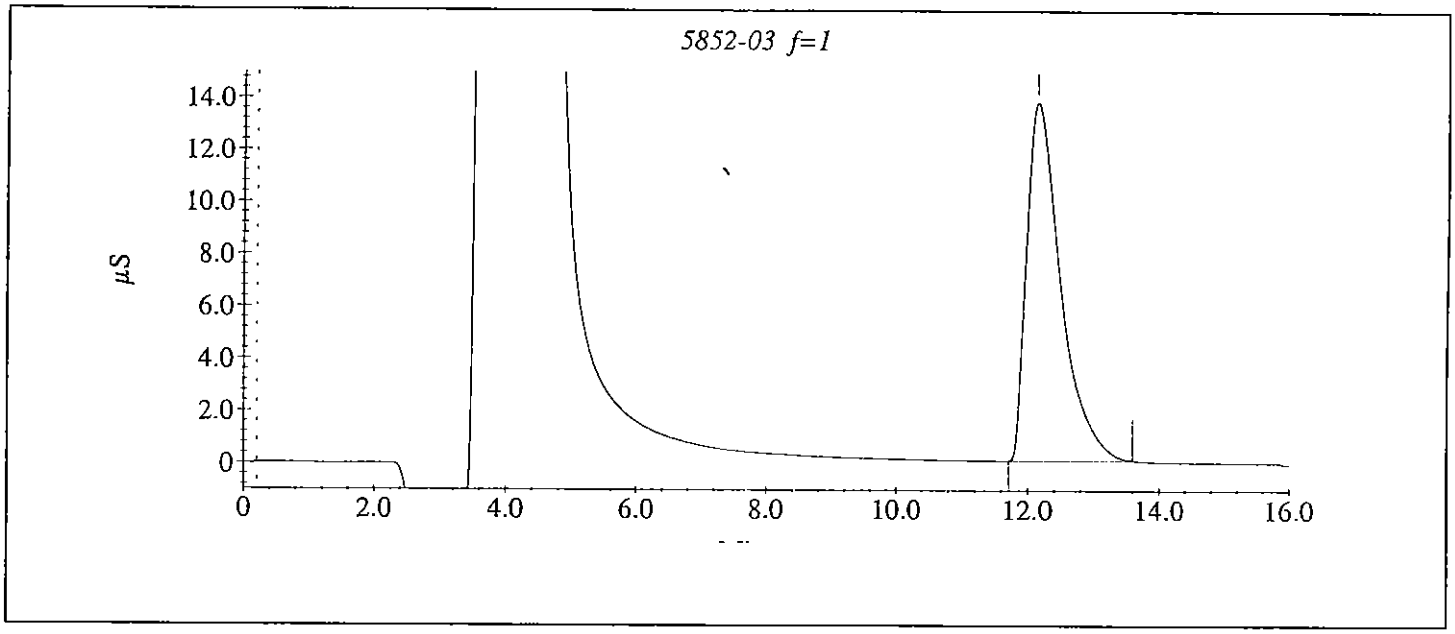
APCL Perchlorate Analysis Report

Sample Name : 5852-03 f=1
Data File Name : C:\DATA\03W4987K\5852-03_010.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 10/29/2003 12:42:17 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
1	perchlorate	12.13	2884.63	4895386.20	137393.02



for reference

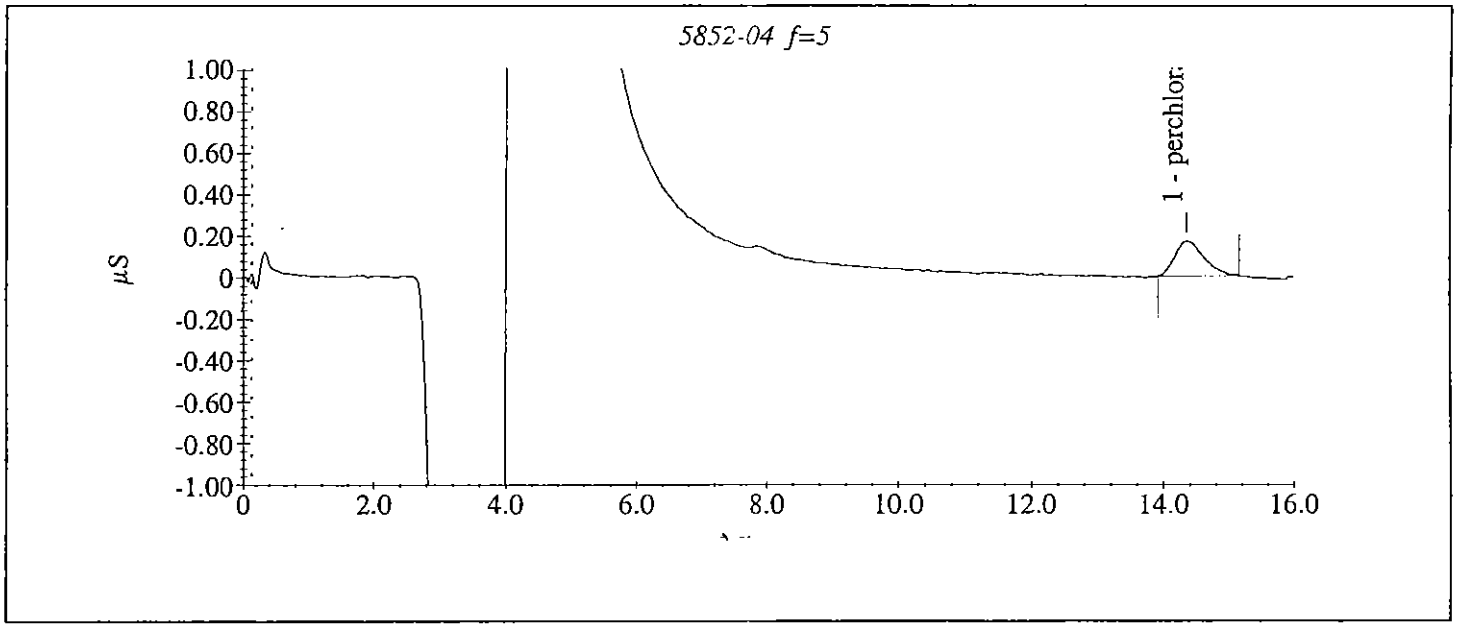
APCL Perchlorate Analysis Report

Sample Name : 5852-04 f=5
Data File Name : C:\DATA\03W4987K\5852-04A_019.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 10/29/2003 3:33:07 PM
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	14.35	154.58	52465.80	1672.60



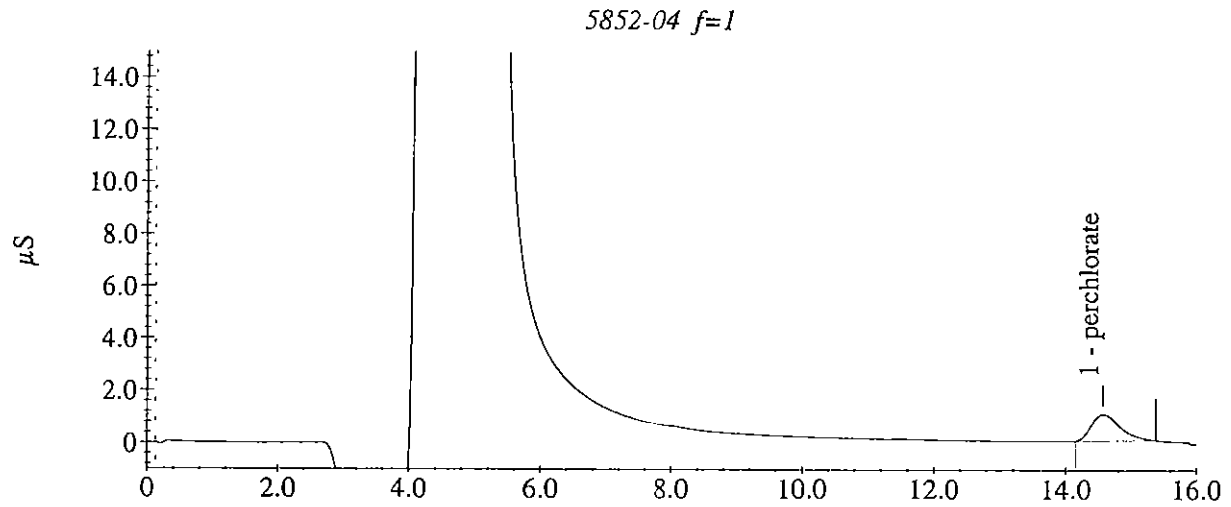
APCL Perchlorate Analysis Report

Sample Name : 5852-04 f=1
Data File Name : C:\DATA\03W4987K\5852-04_018.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 10/29/2003 3:09:43 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	14.57	184.54	313177.90	10032.69



for reference

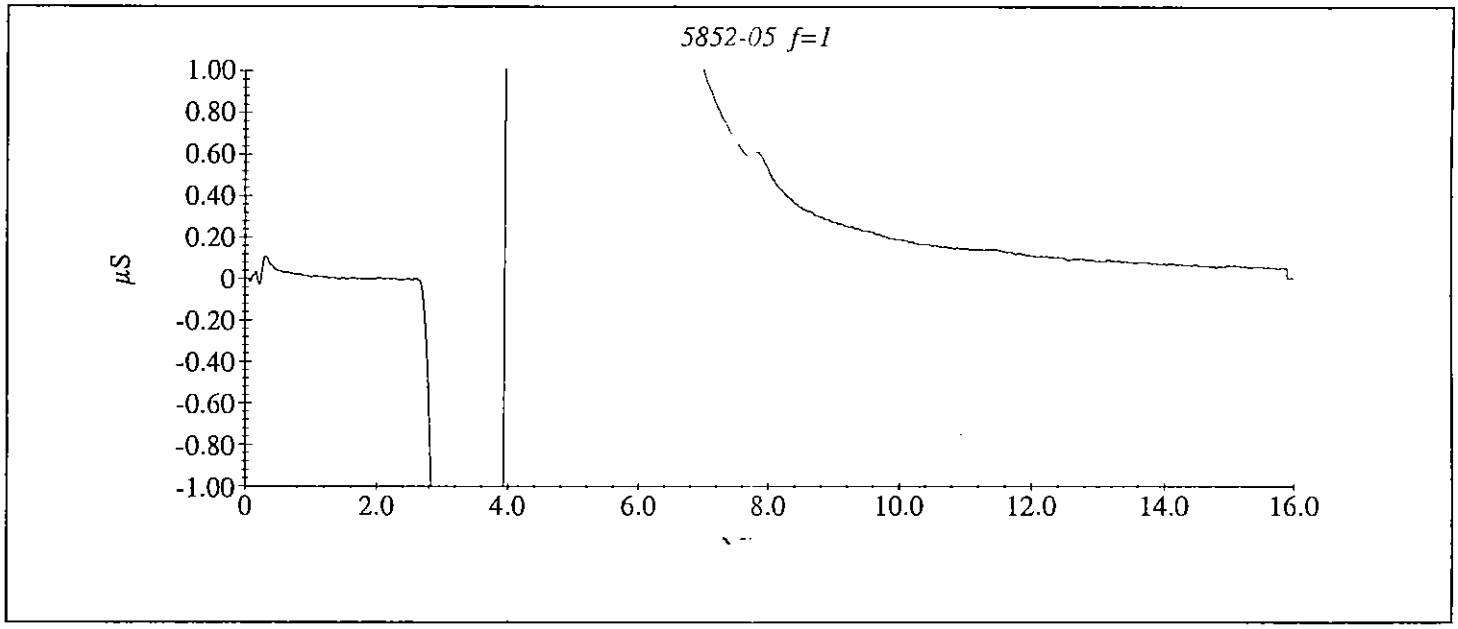
APCL Perchlorate Analysis Report

Sample Name : 5852-05 f=1
Data File Name : C:\DATA\03W4987K\5852-05_012.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 10/29/2003 1:19:03 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



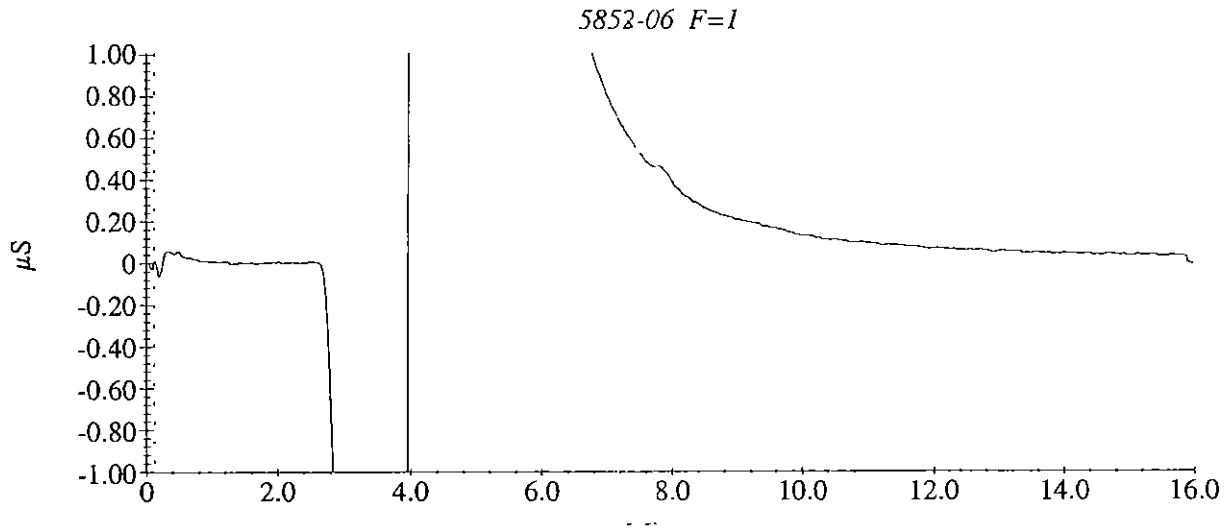
APCL Perchlorate Analysis Report

Sample Name : 5852-06 F=1
Data File Name : C:\DATA\03W4987K\5852-06_015.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 10/29/2003 2:14:25 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



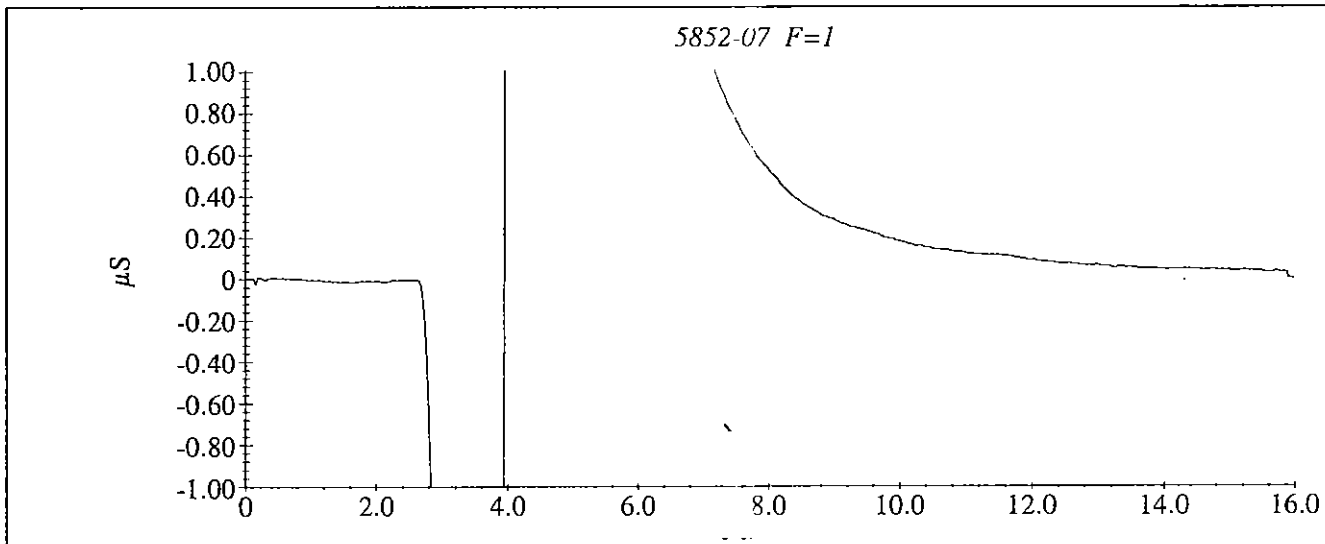
APCL Perchlorate Analysis Report

Sample Name : 5852-07 F=1
Data File Name : C:\DATA\03W4987K\5852-07_016.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 10/29/2003 2:32:51 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



Schedule File: C:\PeakNet\schedule\03w4987k.sch

Line	Sample	Sample Type	Level	Method	Data File	Volume	Dilution	Weight
1	##03w4987k ipc 25ppb w8032	Sample		e314-011.met	c:\data\03w4987k\w4987k ipc25ppb	1	1	1
2	ccv 50ppb w8082	Sample		e314-011.met	c:\data\03w4987k\w4987k q01	1	1	1
3	lcs 25ppb w8087	Sample		e314-011.met	c:\data\03w4987k\w4987k l01	1	1	1
4	Lcsd 25PPB W8033a	Sample		e314-011.met	c:\data\03w4987k\w4987k j01	1	1	1
5	ICCS 4ppb w8088	Sample		e314-011.met	c:\data\03w4987k\w4987k iccs 4ppb	1	1	1
6	mb	Sample		e314-011.met	c:\data\03w4987k\w4987k k01	1	1	1
7	5826-02 f=1	Sample		e314-011.met	c:\data\03w4987k\5826-02	1	1	1
8	5852-01 f=1	Sample		e314-011.met	c:\data\03w4987k\5852-01	1	1	1
9	5852-02 f=1	Sample		e314-011.met	c:\data\03w4987k\5852-02	1	1	1
10	5852-03 f=1	Sample		e314-011.met	c:\data\03w4987k\5852-03	1	1	1
11	5852-04 f=1	Sample		e314-011.met	c:\data\03w4987k\5852-04	1	1	1
12	5852-05 f=1	Sample		e314-011.met	c:\data\03w4987k\5852-05	1	1	1
13	ccv 50ppb w8082	Sample		e314-011.met	c:\data\03w4987k\w4987k q02	1	1	1
14	ccb	Sample		e314-011.met	c:\data\03w4987k\w4987k ccb	1	1	1
15	5852-06 F=1	Sample		e314-011.met	c:\data\03w4987k\5852-06	1	1	1
16	5852-07 F=1	Sample		e314-011.met	c:\data\03w4987k\5852-07	1	1	1
17	5852-03 f=50	Sample		e314-011.met	c:\data\03w4987k\5852-03a	1	50	1
18	5852-04 f=1	Sample		e314-011.met	c:\data\03w4987k\5852-04	1	1	1
19	5852-04 f=5	Sample		e314-011.met	c:\data\03w4987k\5852-04a	1	5	1
20	5874-03 f=1	Sample		e314-011.met	c:\data\03w4987k\5874-03	1	1	1
21	5874-09 f=1	Sample		e314-011.met	c:\data\03w4987k\5874-09	1	1	1
22	5874-03 ms 25ppb f=1w8033b	Sample		e314-011.met	c:\data\03w4987k\w4987k m01	1	1	1
23	5874-03 msd 25ppb f=1w8033b	Sample		e314-011.met	c:\data\03w4987k\w4987k n01	1	1	1
24	ccv 50ppb w8082	Sample		e314-011.met	c:\data\03w4987k\w4987k q03	1	1	1
25	ccb	Sample		e314-011.met	c:\data\03w4987k\w4987k ccb	1	1	1
26	5874-01 f=1	Sample		e314-011.met	c:\data\03w4987k\5874-01	1	1	1
27	5874-02 f=1	Sample		e314-011.met	c:\data\03w4987k\5874-02	1	1	1
28	5874-04 f=1	Sample		e314-011.met	c:\data\03w4987k\5874-04	1	1	1
29	5874-05 f=1	Sample		e314-011.met	c:\data\03w4987k\5874-05	1	1	1
30	5874-06 f=1	Sample		e314-011.met	c:\data\03w4987k\5874-06	1	1	1
31	5874-07 f=1	Sample		e314-011.met	c:\data\03w4987k\5874-07	1	1	1
32	5874-08 f=1	Sample		e314-011.met	c:\data\03w4987k\5874-08	1	1	1
33	5874-10 f=1	Sample		e314-011.met	c:\data\03w4987k\5874-10	1	1	1
34	5874-11 f=1	Sample		e314-011.met	c:\data\03w4987k\5874-11	1	1	1
35	ccv 50ppb w8082	Sample		e314-011.met	c:\data\03w4987k\w4987k q04	1	1	1
36	ccb	Sample		e314-011.met	c:\data\03w4987k\w4987k ccb	1	1	1
37	5874-09 ms 25ppb f=1w8033b	Sample		e314-011.met	c:\data\03w4987k\w4987k m02	1	1	1
38	5874-09 msd 25ppb f=1 w8033b	Sample		e314-011.met	c:\data\03w4987k\w4987k n02	1	1	1
39	ccv 50ppb w8082	Sample		e314-011.met	c:\data\03w4987k\w4987k q05	1	1	1
40		Sample		aastopcl.met		1	1	1

Analyst W. W

Date 10/29/03

Instrument IC-K

Line	Int. Std.	Comment
1	1	
2	1	
3	1	
4	1	
5	1	
6	1	
7	1	
8	1	
9	1	
0	1	
1	1	
2	1	
3	1	
4	1	
5	1	
6	1	
7	1	
8	1	
9	1	
:0	1	
:1	1	
:2	1	
:3	1	
:4	1	
:5	1	
:6	1	
:7	1	
:8	1	
9	1	
0	1	
·1	1	
·2	1	
3	1	
4	1	
5	1	
6	1	
7	1	
8	1	
9	1	
0	1	

Default Method Path: C:\PEAKNET\METHOD
Default Data Path: C:\DATA\03W4560K
Comment:

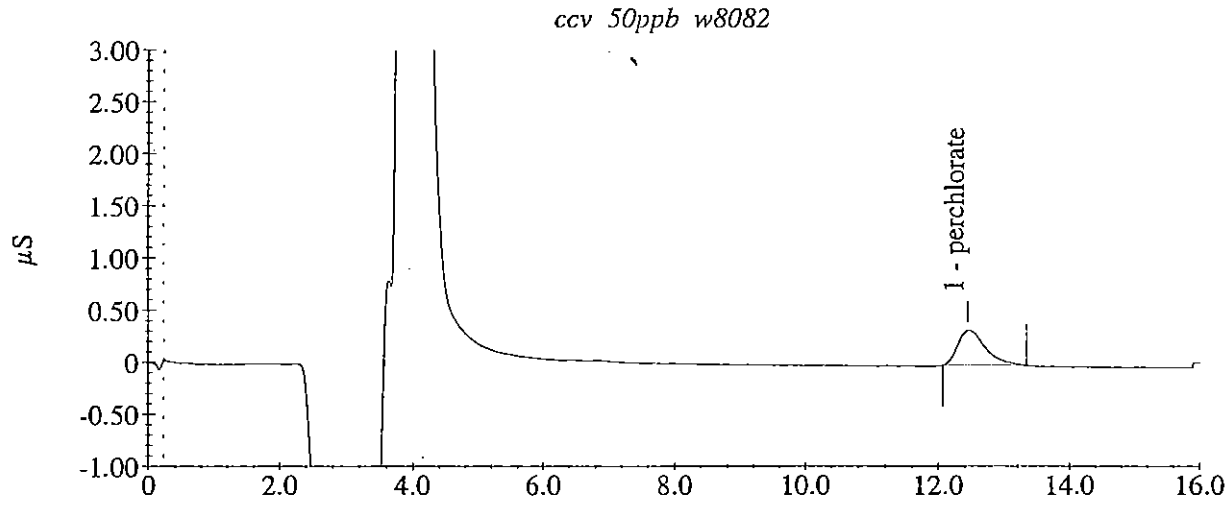
APCL Perchlorate Analysis Report

Sample Name : ccv 50ppb w8082
Data File Name : C:\DATA\03W4987K\W4987K Q01_002.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 10/29/2003 10:14:47 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	12.45	57.33	97284.10	3339.41



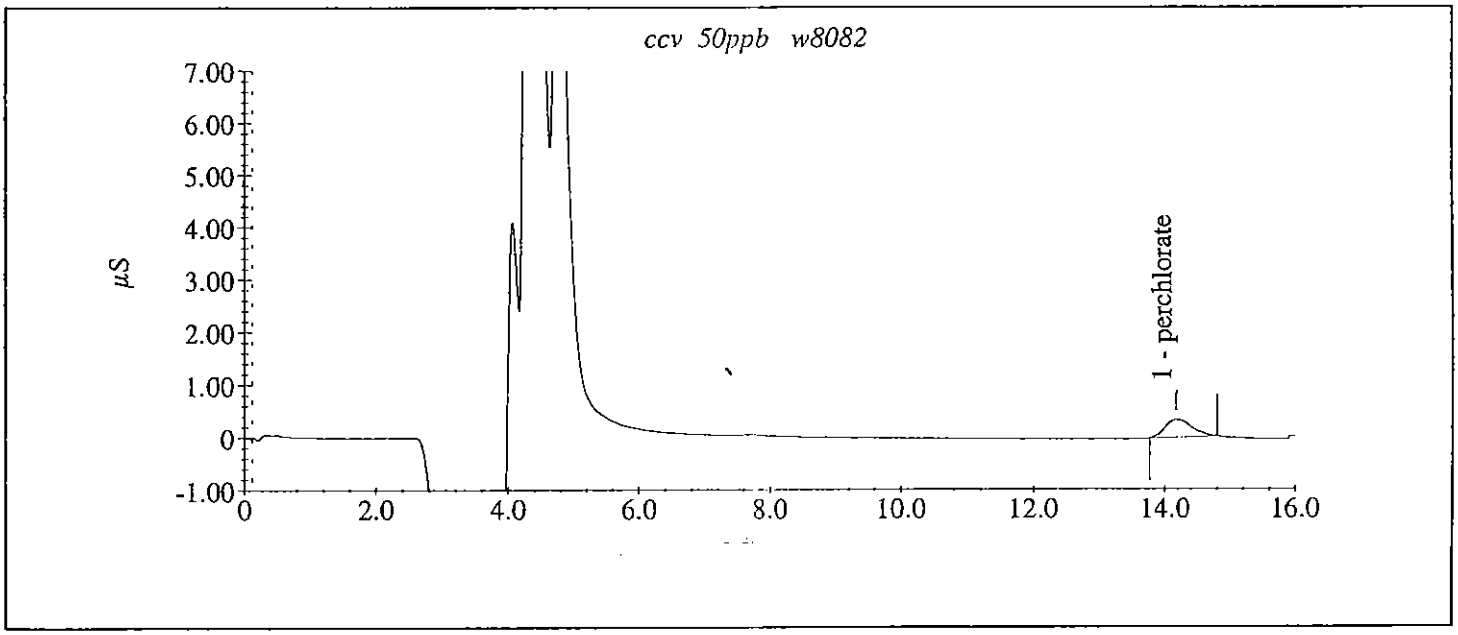
APCL Perchlorate Analysis Report

Sample Name : ccv 50ppb w8082
Data File Name : C:\DATA\03W4987K\W4987K Q02_013.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 10/29/2003 1:37:31 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	14.17	57.31	97250.10	3387.86



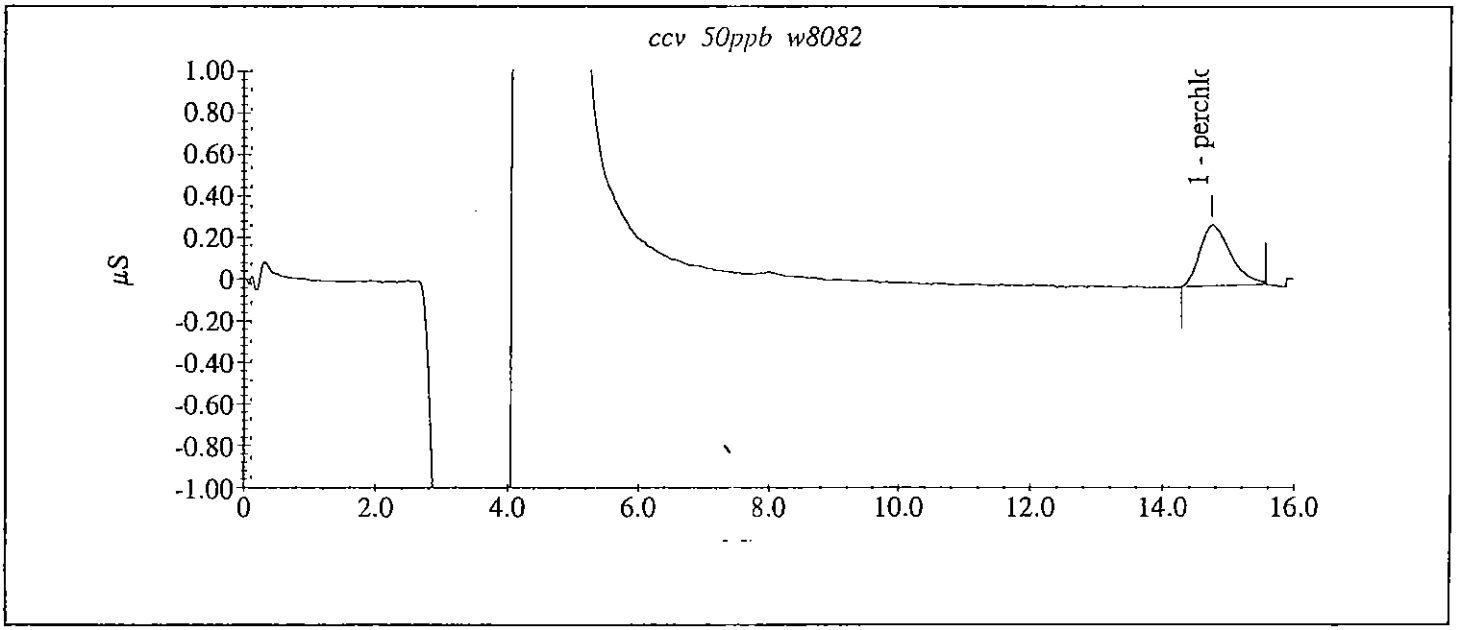
APCL Perchlorate Analysis Report

Sample Name : ccv 50ppb w8082
Data File Name : C:\DATA\03W4987K\W4987K Q03_024.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 10/29/2003 5:07:06 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	14.77	56.19	95364.10	2931.54



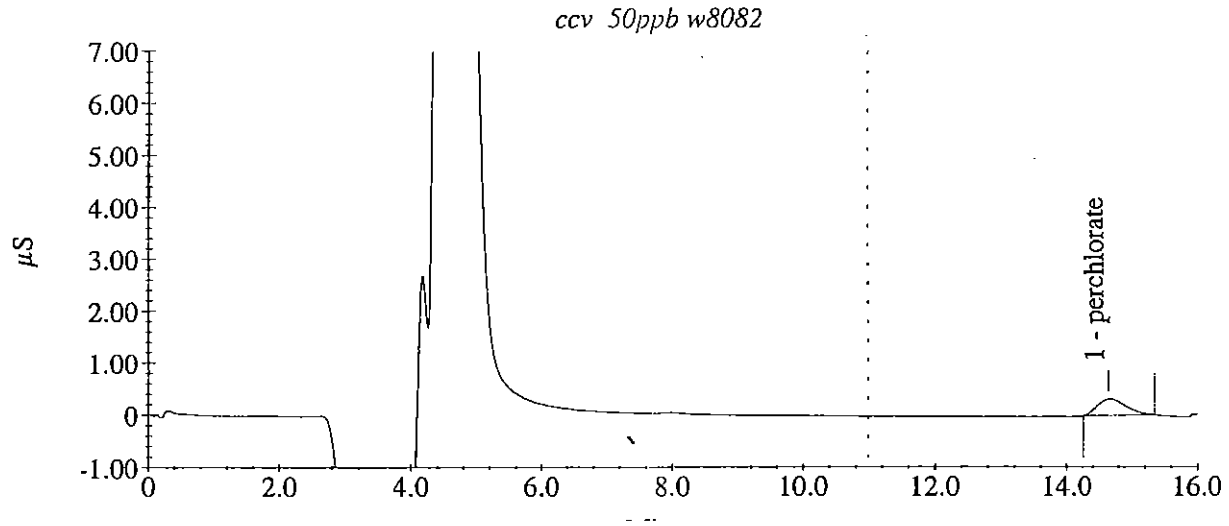
APCL Perchlorate Analysis Report

Sample Name : ccv 50ppb w8082
Data File Name : C:\DATA\03W4987K\W4987K Q04_035.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 10/29/2003 8:29:39 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	14.63	55.94	94928.75	3120.75



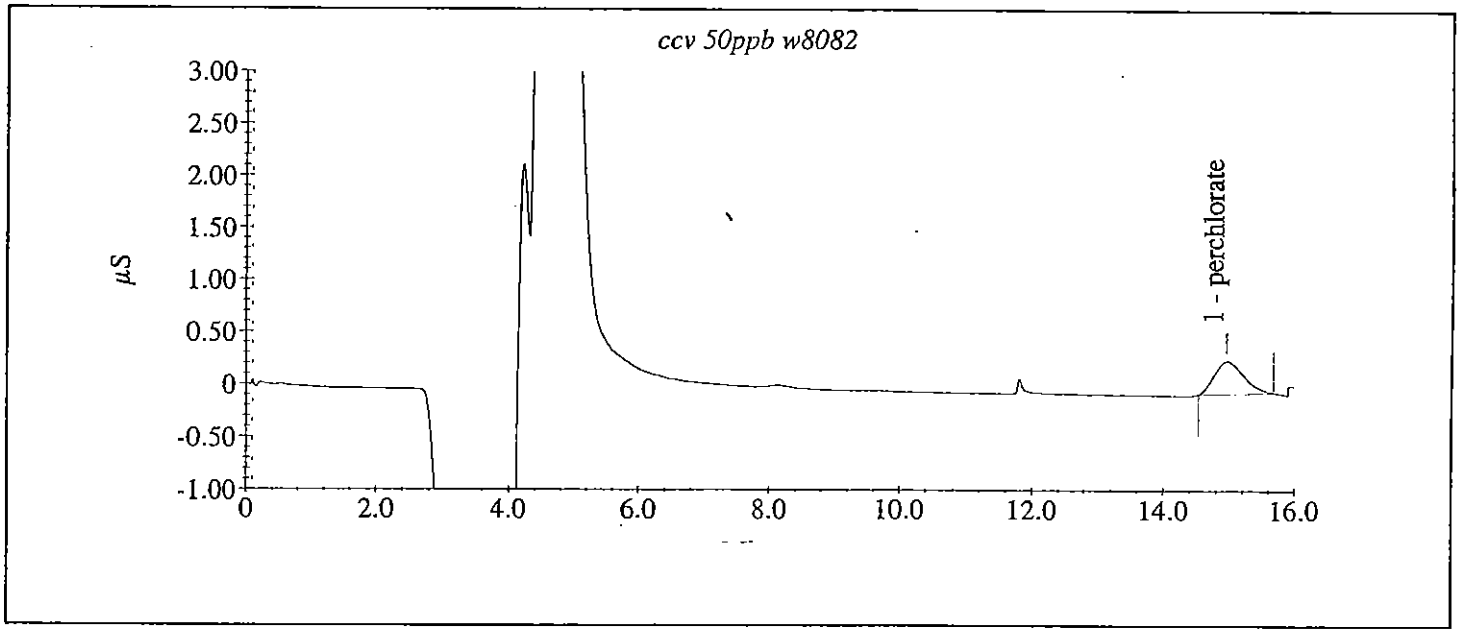
APCL Perchlorate Analysis Report

Sample Name : ccv 50ppb w8082
Data File Name : C:\DATA\03W4987K\W4987K Q05_039.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 10/29/2003 9:43:17 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
1	perchlorate	14.95	57.49	97569.15	3112.40



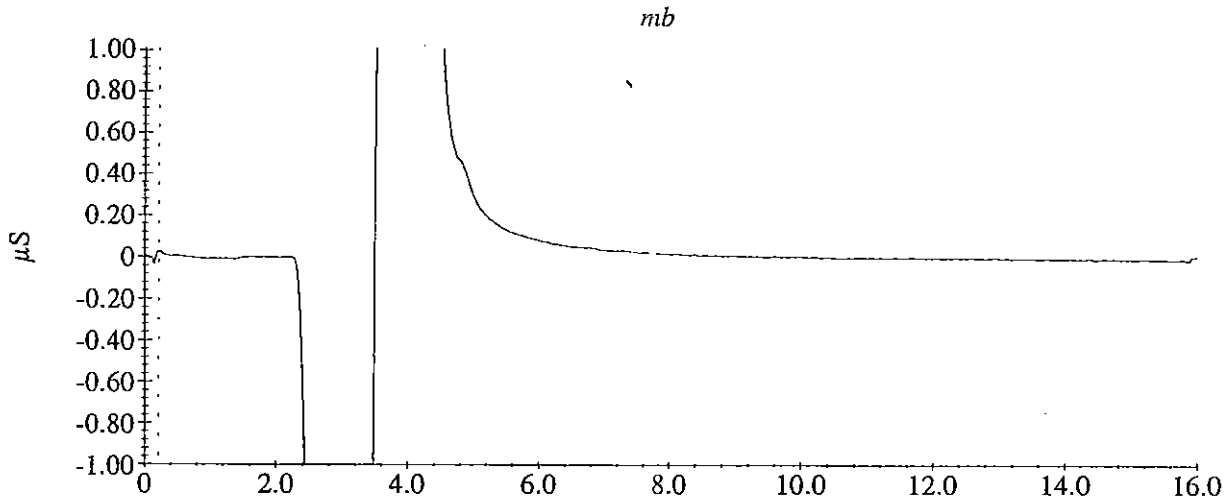
APCL Perchlorate Analysis Report

Sample Name : mb
Data File Name : C:\DATA\03W4987K\W4987K K01_006.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 10/29/2003 11:28:24 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



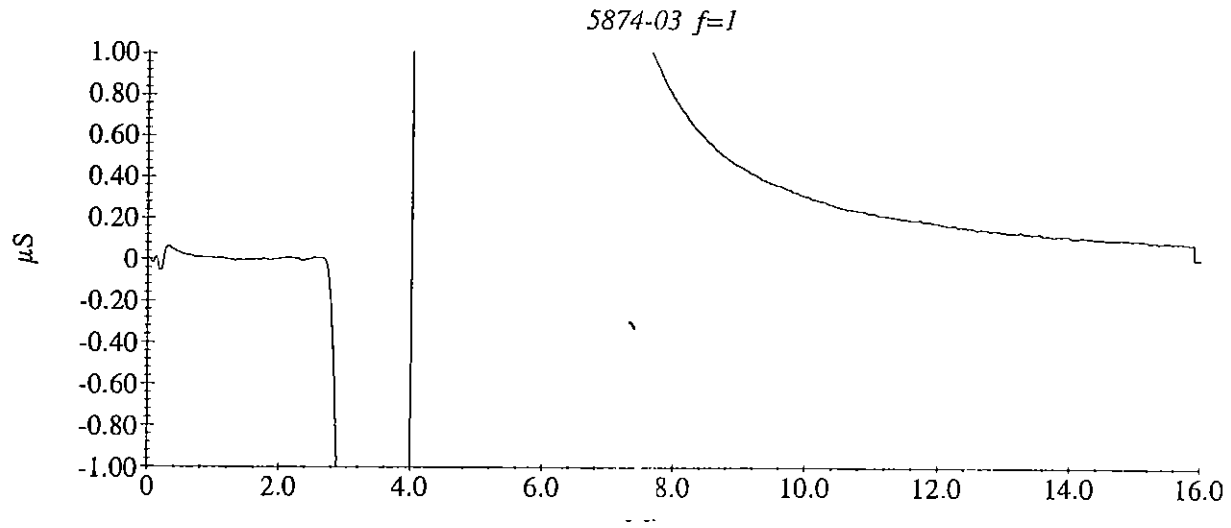
APCL Perchlorate Analysis Report

Sample Name : 5874-03 f=1
Data File Name : C:\DATA\03W4987K\5874-03_020.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 10/29/2003 3:53:09 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



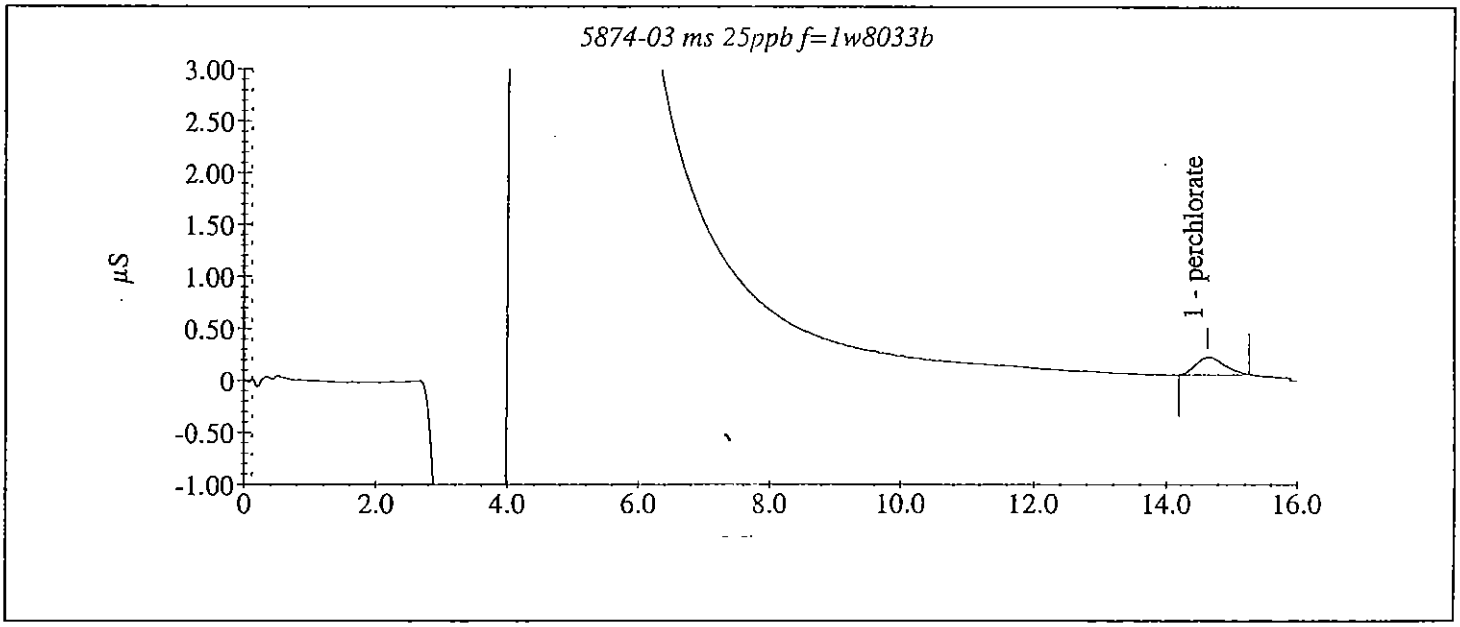
APCL Perchlorate Analysis Report

Sample Name : 5874-03 ms 25ppb f=1w8033b
Data File Name : C:\DATA\03W4987K\W4987K M01_022.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 10/29/2003 4:30:17 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
1	perchlorate	14.63	30.56	51858.20	1706.95



Rec 122.2%

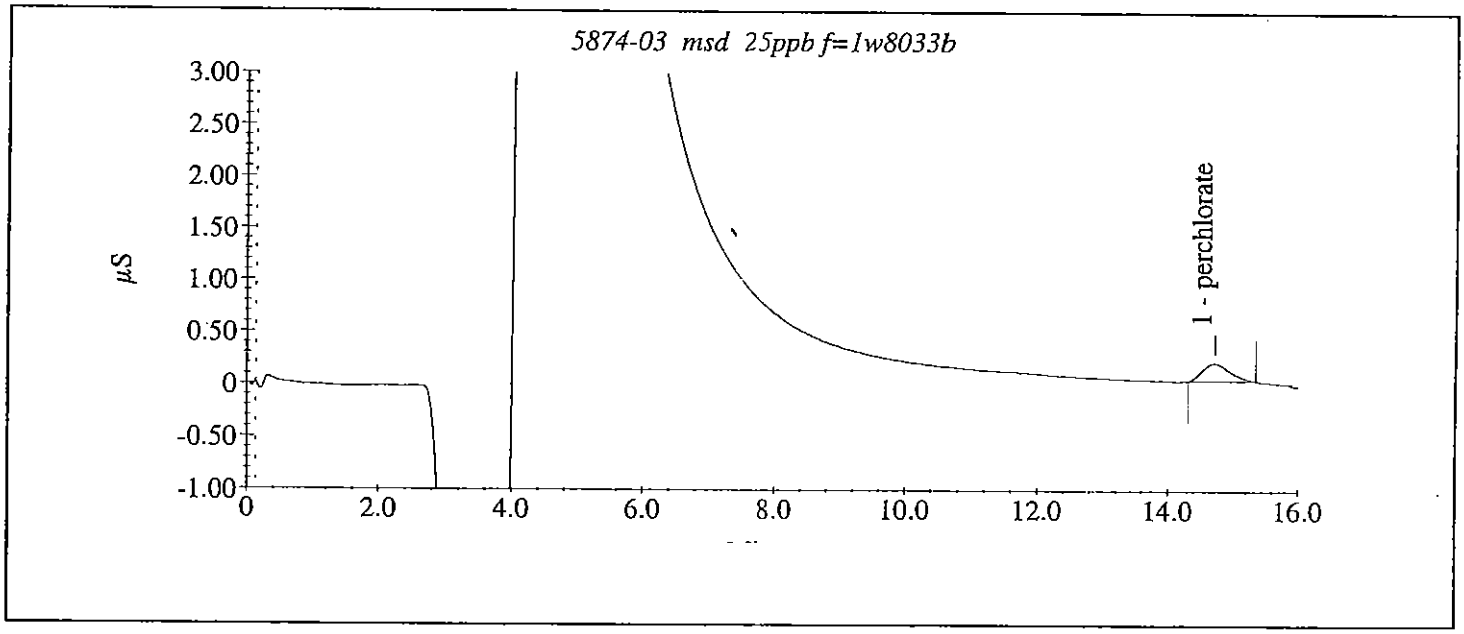
APCL Perchlorate Analysis Report

Sample Name : 5874-03 msd 25ppb f=1w8033b
Data File Name : C:\DATA\03W4987K\W4987K N01_023.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 10/29/2003 4:48:42 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	14.72	29.98	50886.00	1708.65



Rec 119.92%

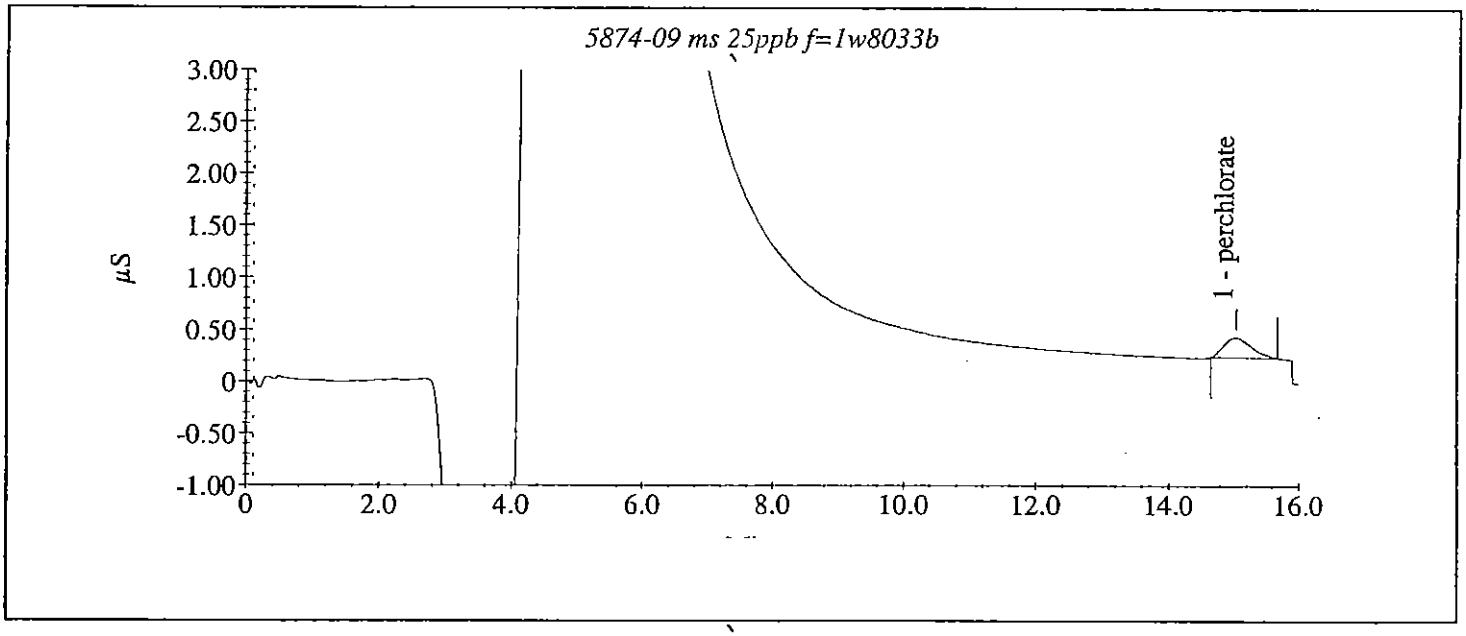
APCL Perchlorate Analysis Report

Sample Name : 5874-09 ms 25ppb f=1w8033b
Data File Name : C:\DATA\03W4987K\W4987K M02_037.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 10/29/2003 9:06:30 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	15.05	33.44	56752.00	1895.76



Rec 113.44%

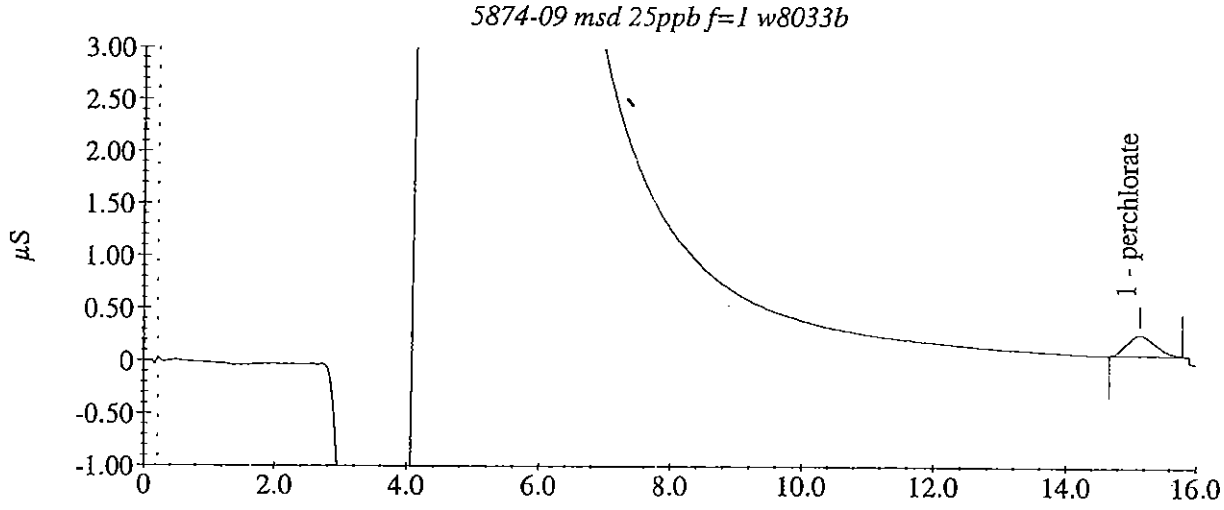
APCL Perchlorate Analysis Report

Sample Name : 5874-09 msd 25ppb f=1 w8033b
Data File Name : C:\DATA\03W4987K\W4987K N02_038.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 10/29/2003 9:24:54 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	15.13	36.29	61583.50	1984.77



Rec 124.84 %

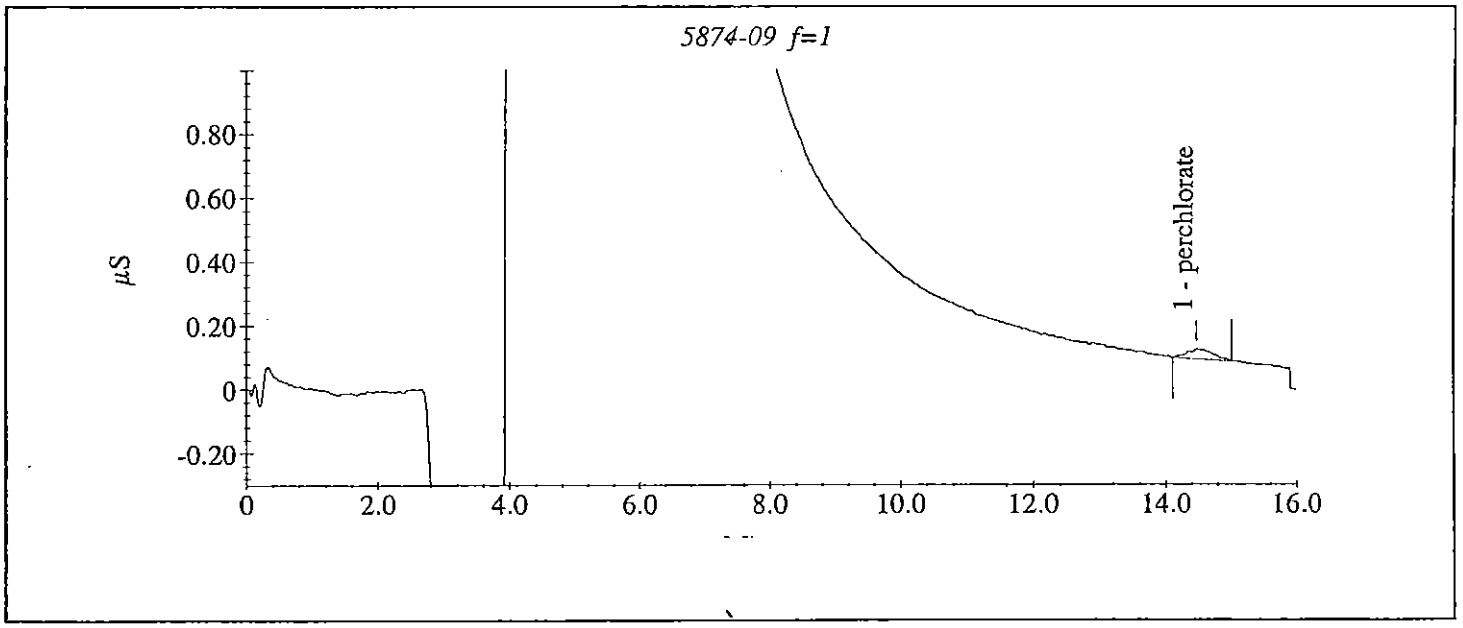
APCL Perchlorate Analysis Report

Sample Name : 5874-09 f=1
Data File Name : C:\DATA\03W4987K\5874-09_021.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 10/29/2003 4:11:32 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	14.48	5.08	8621.10	303.00



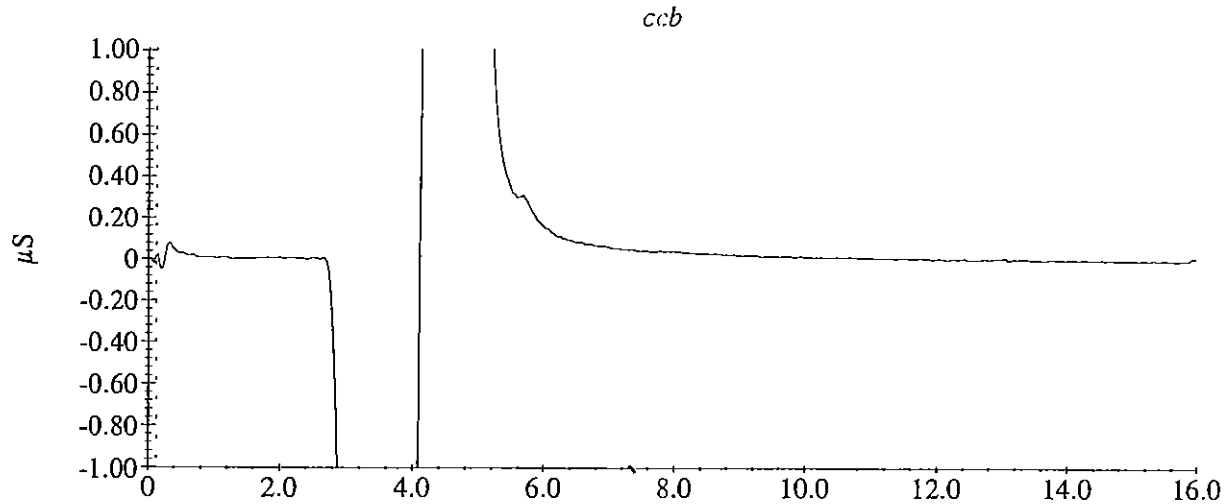
APCL Perchlorate Analysis Report

Sample Name : ccb
Data File Name : C:\DATA\03W4987K\W4987K CCB_025.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 10/29/2003 5:25:31 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



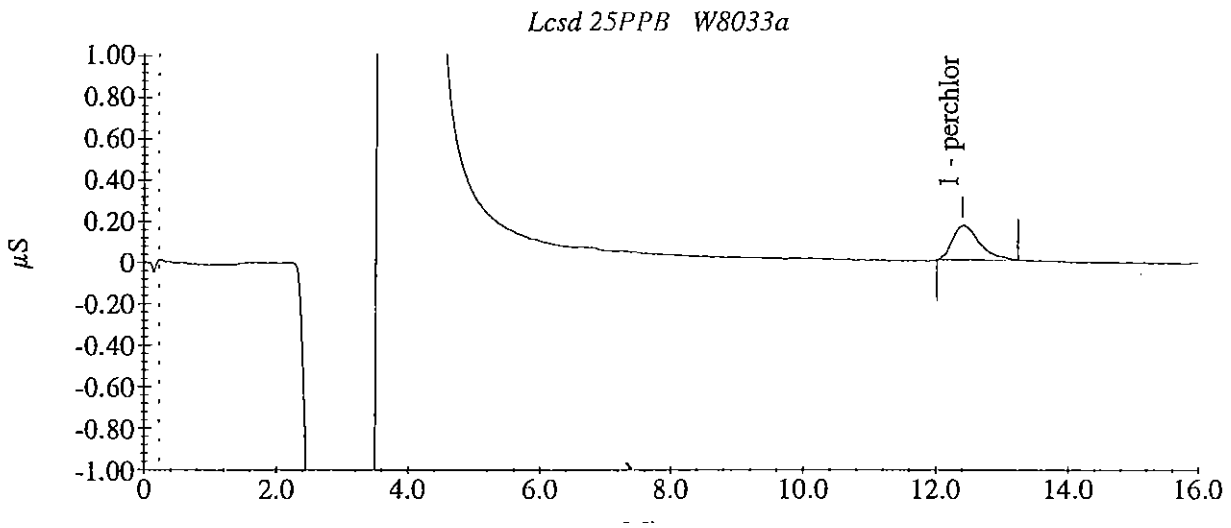
APCL Perchlorate Analysis Report

Sample Name : Lcsd 25PPB W8033a
Data File Name : C:\DATA\03W4987K\W4987K J01_004.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 10/29/2003 10:51:35 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	12.42	27.82	47207.30	1660.82



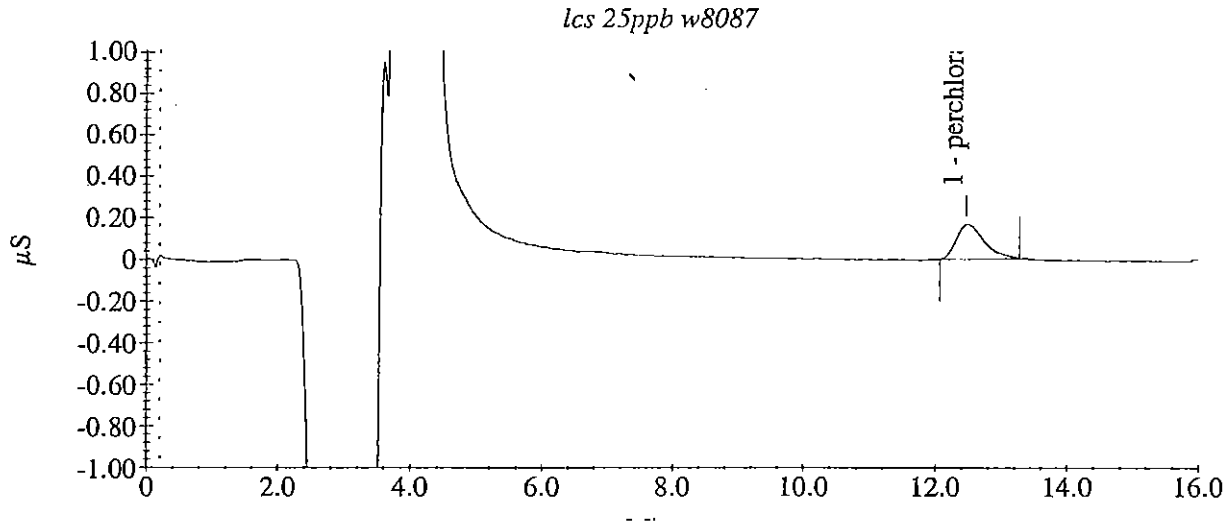
APCL Perchlorate Analysis Report

Sample Name : lcs 25ppb w8087
Data File Name : C:\DATA\03W4987K\W4987K L01_003.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 10/29/2003 10:33:09 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	12.47	28.60	48536.60	1649.26



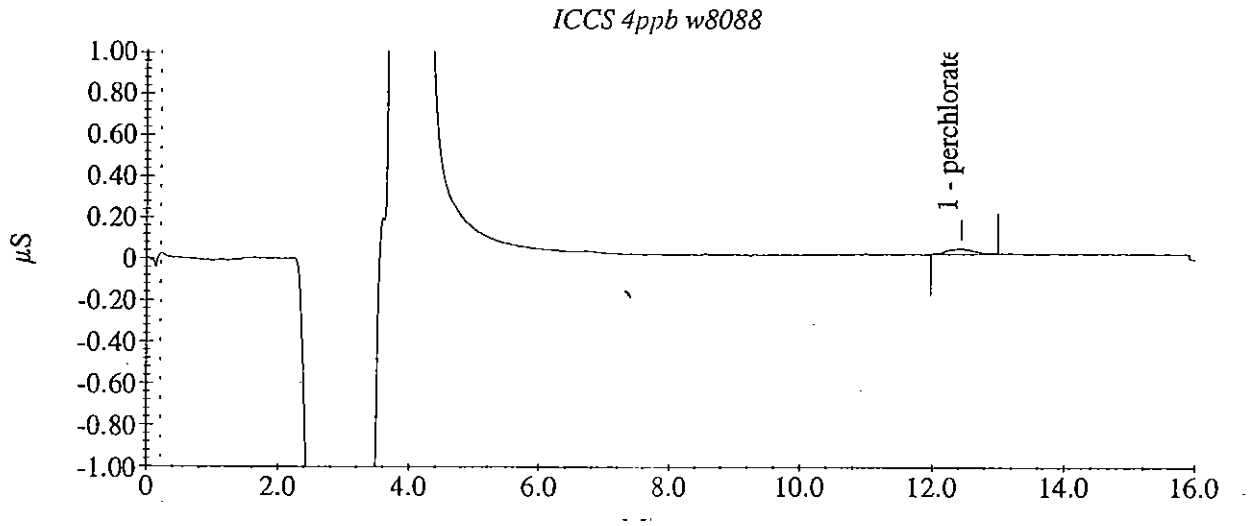
APCL Perchlorate Analysis Report

Sample Name : ICCS 4ppb w8088
Data File Name : C:\DATA\03W4987K\W4987K ICCS 4PPB_005.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 10/29/2003 11:10:00 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	12.43	4.75	8062.90	276.62



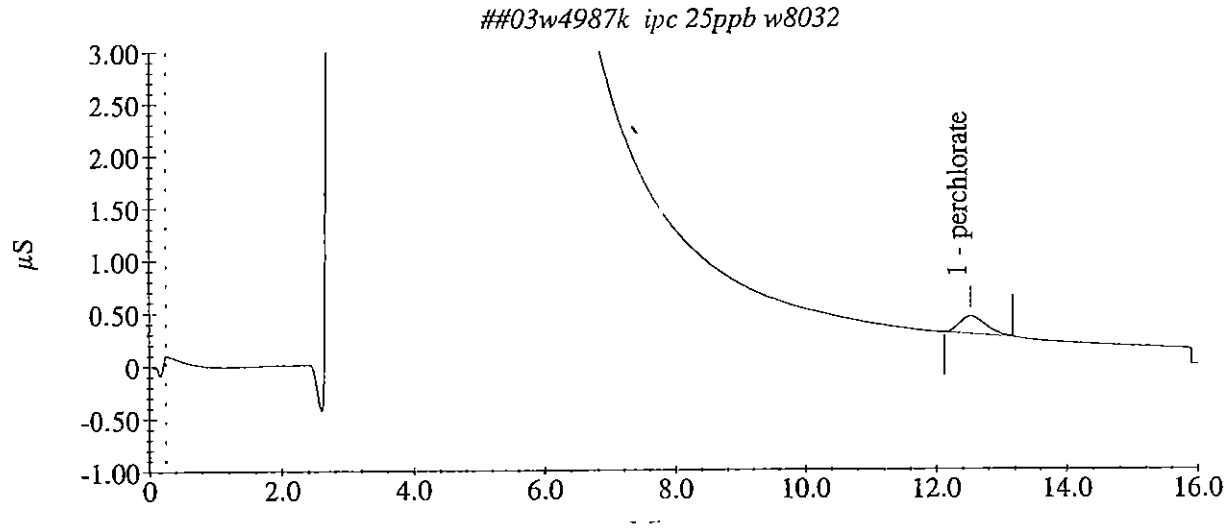
APCL Perchlorate Analysis Report

Sample Name : ##03w4987k ipc 25ppb w8032
Data File Name : C:\DATA\03W4987K\W4987K IPC25PPB_001.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 10/29/2003 9:55:30 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	12.53	27.10	45988.30	1680.92



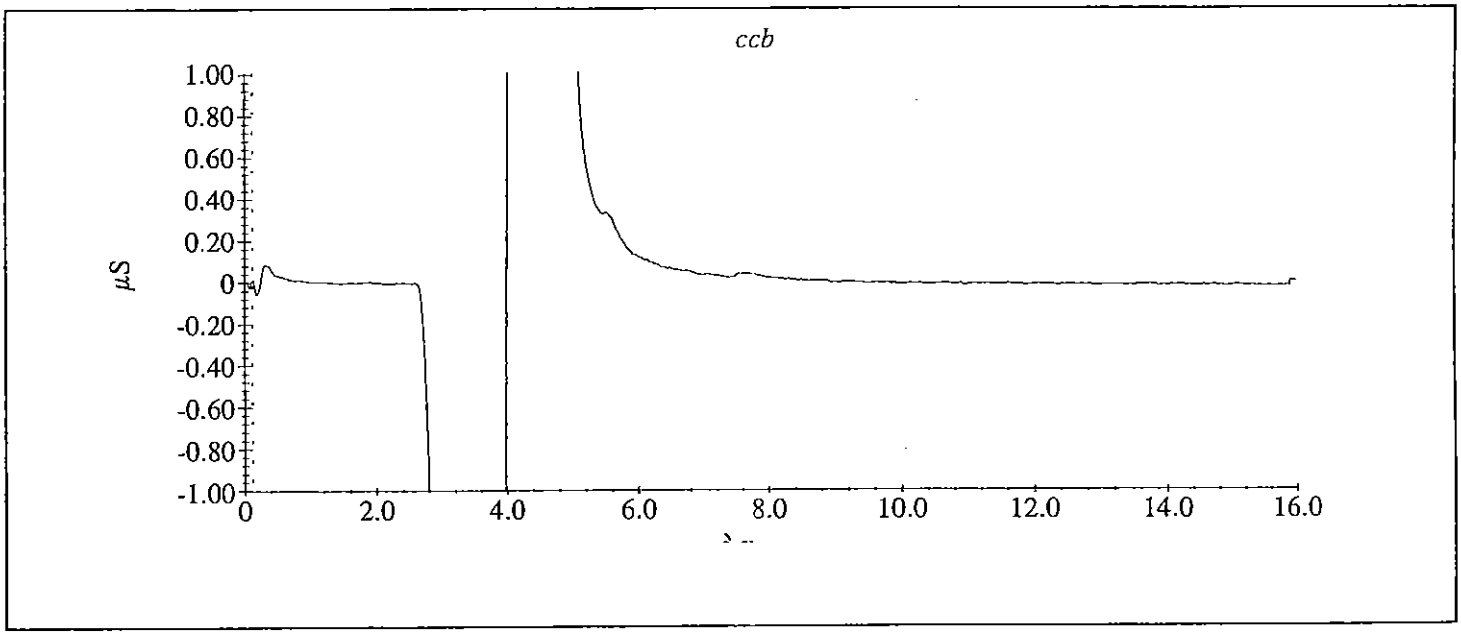
APCL Perchlorate Analysis Report

Sample Name : ccb
Data File Name : C:\DATA\03W4987K\W4987K CCB_014.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 10/29/2003 1:55:58 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



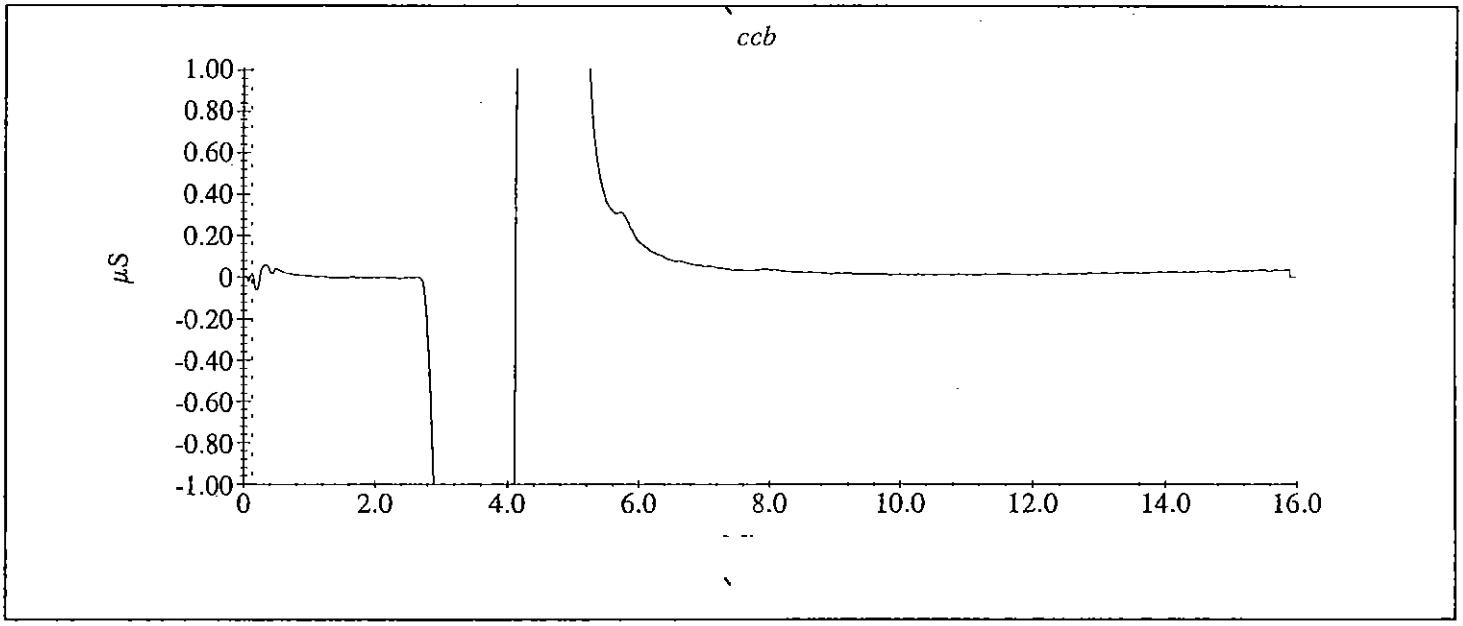
APCL Perchlorate Analysis Report

Sample Name : ccb
Data File Name : C:\DATA\03W4987K\W4987K CCB_036.DXD

Method File Name : c:\peaknet\method\e314-011.met
Date Time Collected : 10/29/2003 8:48:04 PM
System Operator : C.W and W.W
Dilution Factor : 1.00

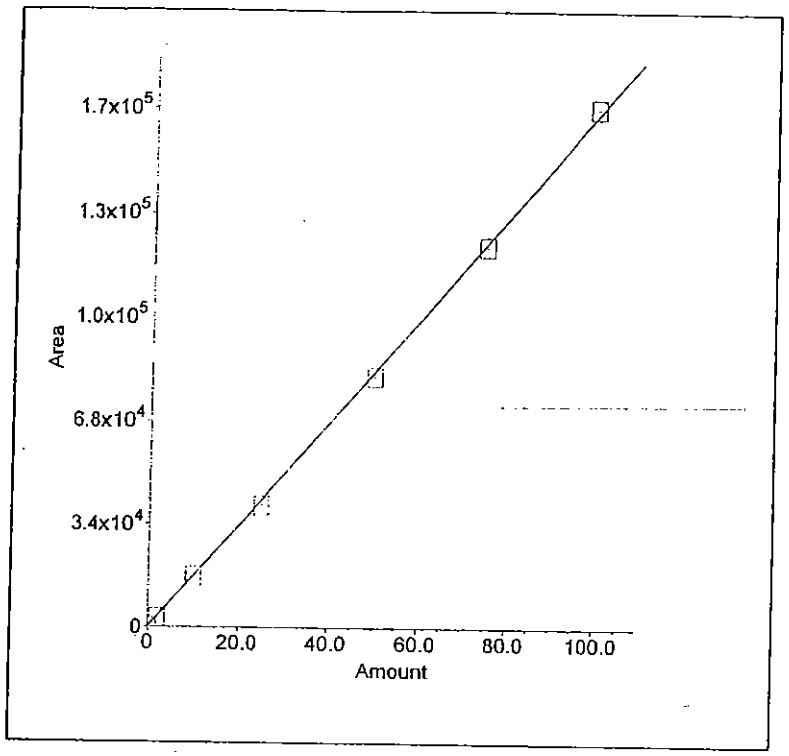
Peak Information : All Components

Peak #	Component Name	Retention Time	Amount (ppb)	Peak Area	Peak Height



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*Resp+0



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

Analyst C. W
Date 03/12/03
Instrument Ic-1c

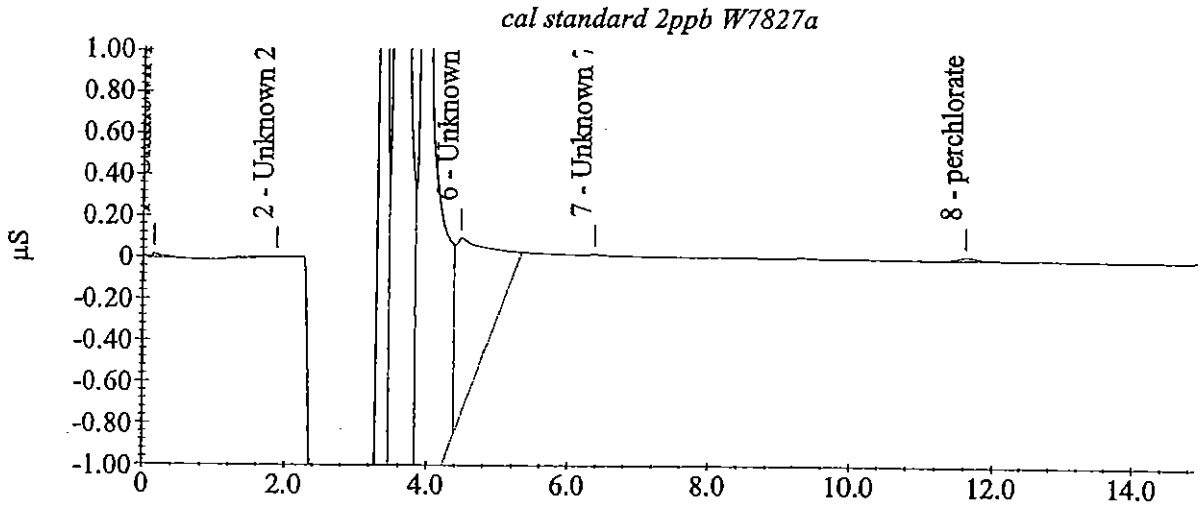
APCL Perchlorate Analysis Report

Sample Name : cal standard 2ppb W7827a
Data File Name : C:\DATA\E314-011\std-2pb_002.DXD

Method File Name : C:\PEAKNET\METHOD\e314-011.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

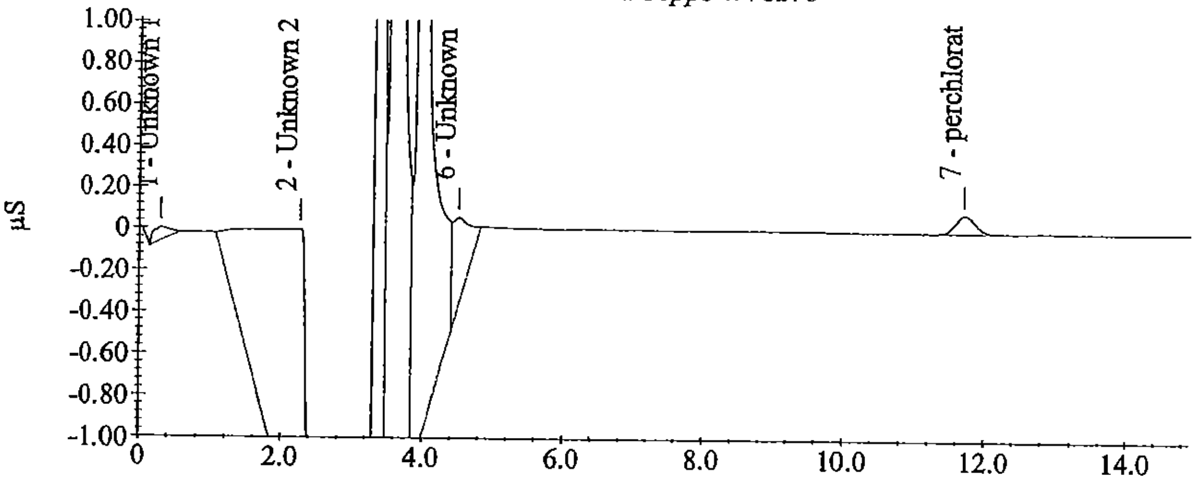
Sample Name : cal standard 10ppb W7827c
Data File Name : C:\DATA\E314-011\std-10pb_004.DXD

Method File Name : C:\PEAKNET\METHOD\e314-011.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

cal standard 10ppb W7827c



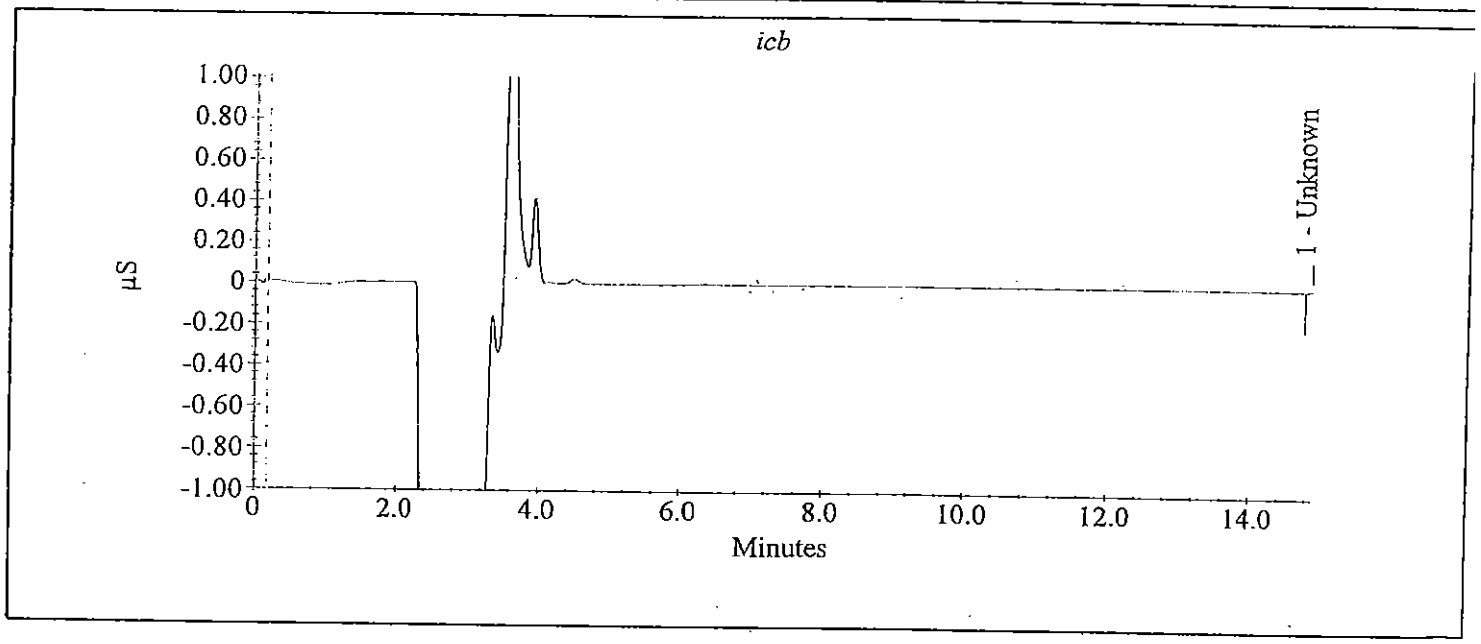
APCL Perchlorate Analysis Report

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



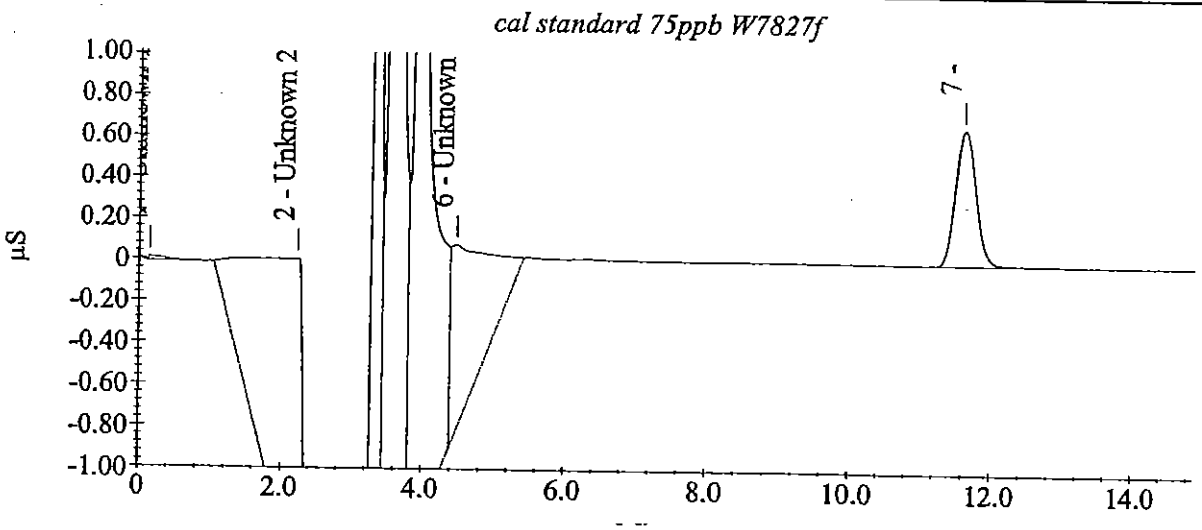
APCL Perchlorate Analysis Report

Sample Name : cal standard 75ppb W7827f
Data File Name : C:\DATA\E314-011\std-75pb_007.DXD

Method File Name : C:\PEAKNET\METHOD\e314-011.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

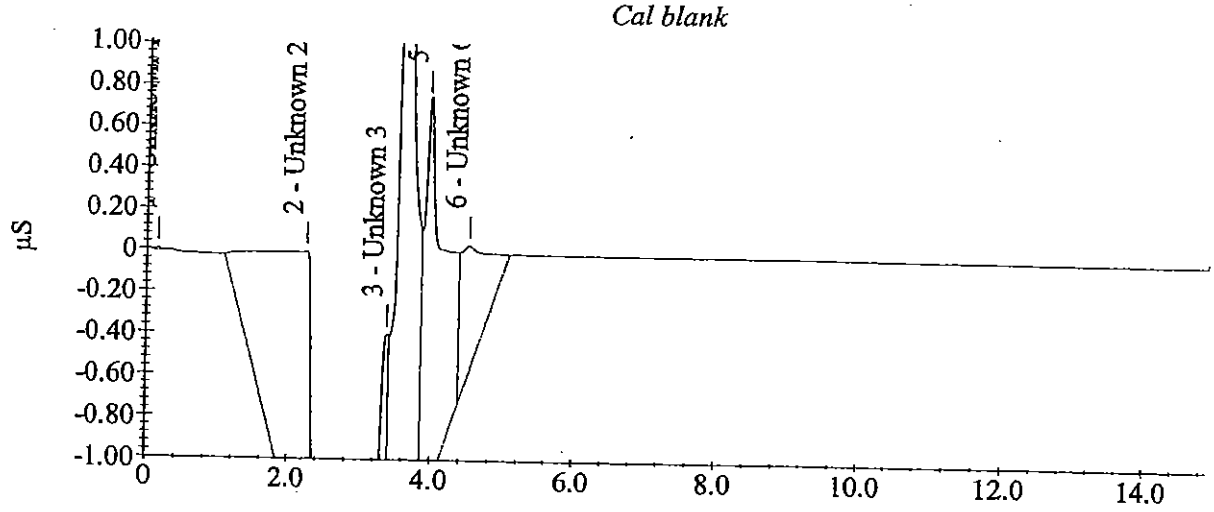
Sample Name : Cal blank
Data File Name : C:\data\E314-011\Mb_001.DXD

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

Cal blank



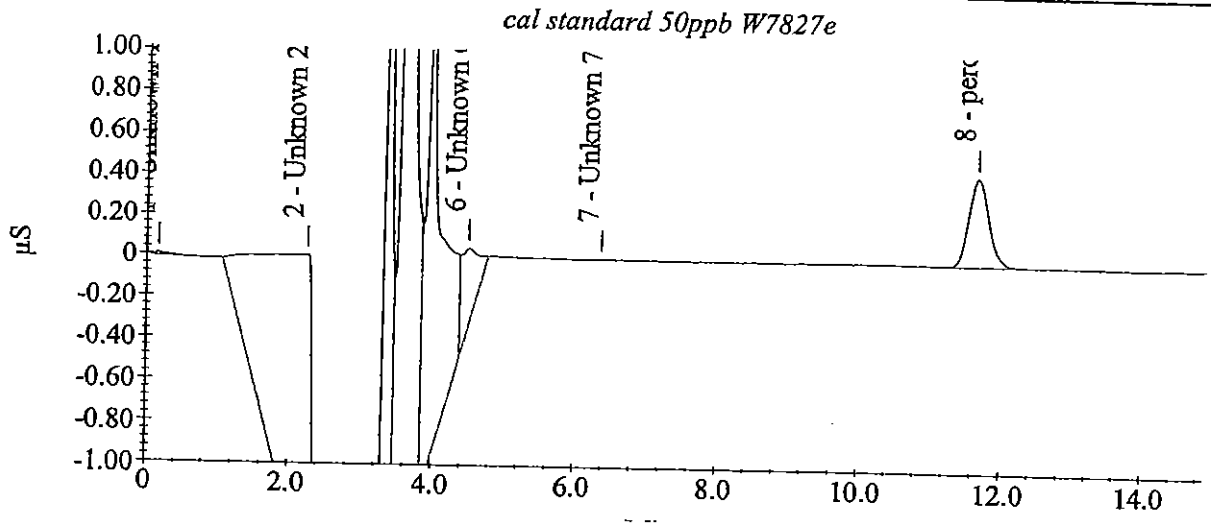
APCL Perchlorate Analysis Report

Sample Name : cal standard 50ppb W7827e
Data File Name : C:\DATA\E314-011\std-50pb_006.DXD

Method File Name : C:\PEAKNET\METHOD\e314-011.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



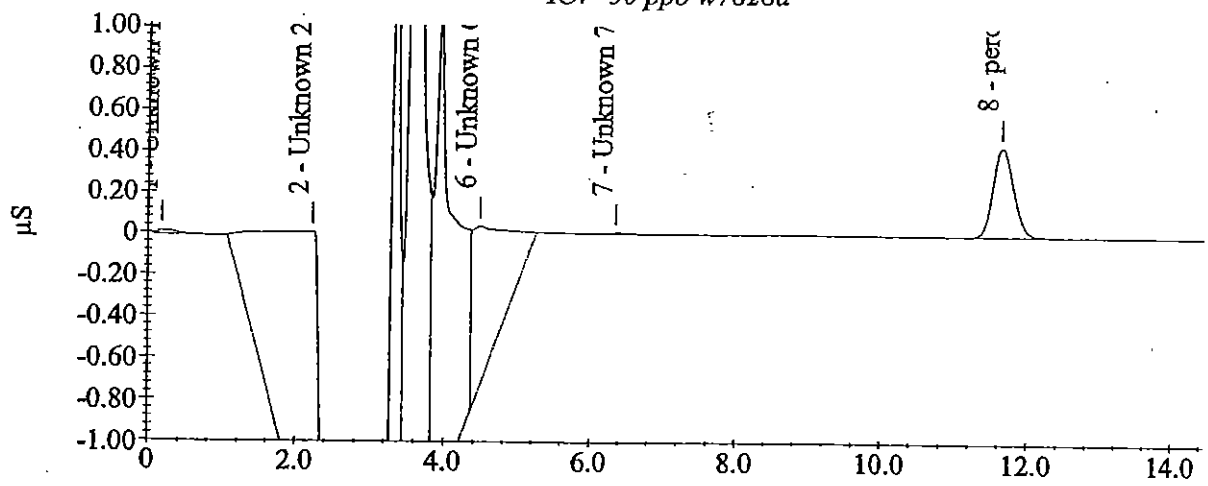
APCL Perchlorate Analysis Report

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



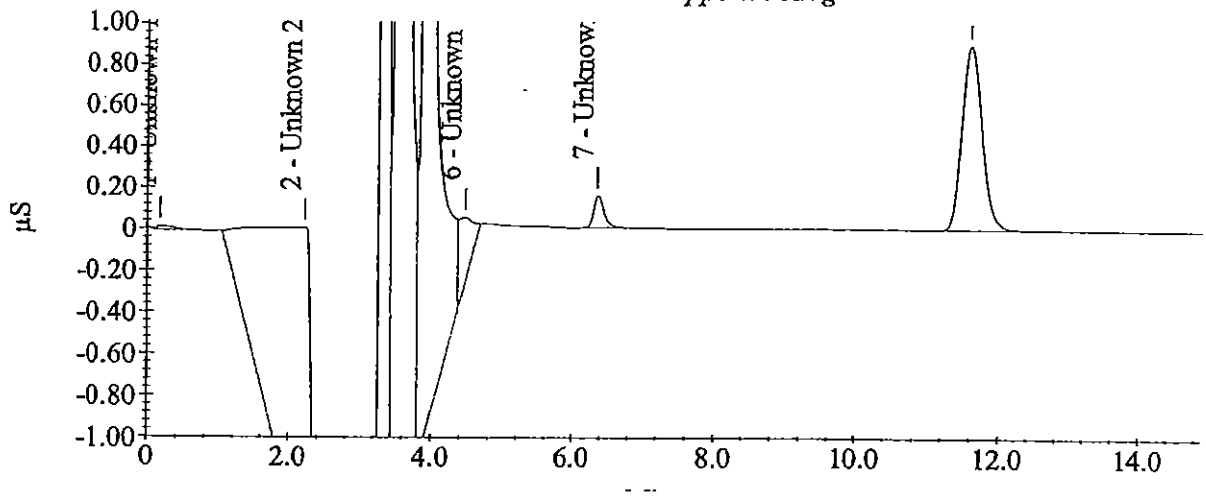
APCL Perchlorate Analysis Report

Sample Name : cal standard 100ppb W7827g
Data File Name : C:\DATA\E314-011\std-100pb_008.DXD

Method File Name : C:\PEAKNET\METHOD\e314-011.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	89271



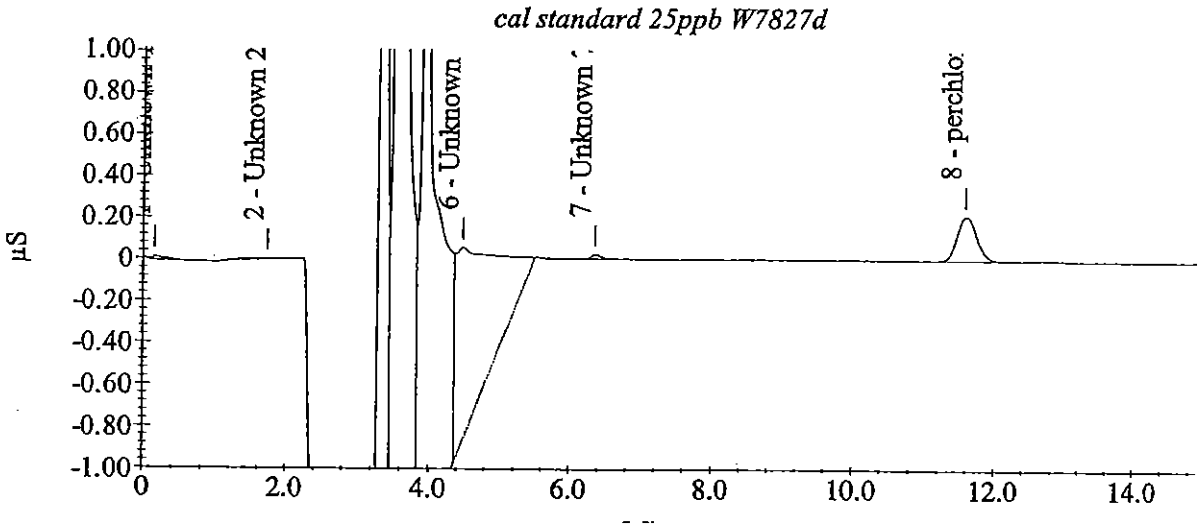
APCL Perchlorate Analysis Report

Sample Name : cal standard 25ppb W7827d
Data File Name : C:\DATA\E314-011\std-25pb_005.DXD

Method File Name : C:\PEAKNET\METHOD\e314-011.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



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

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Submitted to:
GEOFON, Inc.
Attention: Brad Shojaee
22632 Golden Spring Dr Ste 270
Diamond Bar 91765
Tel: (909)396-7662 Fax: (909)396-1455

Service ID #: 801-035802
Collected by: JR
Collected on: 10/23/03

Received: 10/23/03
Extracted: N/A
Tested: N/A
Reported: 11/13/03

Sample Description: Water
Project Description: 04.4428.10 JPL

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result Dupe-4-4-Q03 03-05802-1	EB-2-10-23-03 03-05802-2	MW-12-1 03-05802-3	MW-12-2 03-05802-4
CHROMIUM [a]							

Component Analyzed	Method	Unit	PQL	Analysis Result MW-12-3 03-05802-5	MW-12-4 03-05802-6	MW-12-5 03-05802-7	MW-23-1 03-05802-8
CHROMIUM [a]							

Component Analyzed	Method	Unit	PQL	Analysis Result MW-23-2 03-05802-9	MW-23-3 03-05802-10	MW-23-4 03-05802-11	MW-23-5 03-05802-12
CHROMIUM [a]							

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit
N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.
J: Reported between PQL and MDL.
Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0
[a] Subcontracted to Advanced Technology Laboratories Inc. See attached.

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

0061

GEOFON

INCORPORATED
22632 GOLDEN SPRINGS DR., SUITE 270
DIAMOND BAR, CA 91765 • (909) 396-7662 • FAX (909) 396-1455

CHAIN-OF-CUSTODY RECORD

LABORATORY COPY

MW-12

GEOFON's LAB COORDINATOR: Scott Buchner	LAB COORDINATOR'S PHONE: 909 396 7662	LAB COORDINATOR'S FAX: 909 396 1455	LABORATORY SERVICE ID:	LABORATORY CONTACT: Kenny Chan	MAIL REPORT (COMPANY NAME): Geofon
PROJECT NAME: JPL GW Mon-4Q03	PROJECT LOCATION: MW-12	PROJECT NUMBER: 04.4428.10	LABORATORY PHONE: 909 590 1828	LABORATORY FAX: 909 590 1498	RECIPIENT NAME: Tony Ford
PROJECT CONTACT: Brad Shojaee	PROJECT PHONE NUMBER: 909-396-7662	PROJECT FAX: 909 396 1455	LABORATORY ADDRESS: 13760 Magnolia Ave.		ADDRESS: 22632 Golden Springs Dr. Ste 270
PROJECT ADDRESS: 4800 Oak Grove Dr.	CITY, STATE AND ZIPCODE: Pasadena, CA ~~909 396 7662~~	CLIENT: US Navy SWDIV	CITY, STATE AND ZIPCODE: Chino, CA 91710		CITY, STATE AND ZIPCODE: Diamond Bar, CA 91765
PROJECT MANAGER: Tony Ford	PROJECT MANAGER'S PHONE: 909 396 7662	PROJECT MANAGER'S FAX: 909 396 1455			

5802

Item	Sample Identifier	Matrix	Date	Time	Preserved	# of Cont.	QC Level	T.A.T.	200.8 (W)	7196 (Cr VI)	527.0 (VOC)	314.0 (ClO4)					Comments
1	MW-12-5	W	10/23/03	1049	HNO3 / None	5	III	Normal	X	X	X	X					
2	MW-12-4	↓	↓	1113	↓	5	III	↓	X	X	X	X					
3	MW-12-3			1132			↓		X	X	X	X					
4	MW-12-2			1150					X	X	X	X					
5	MW-12-1			1216			↓		X	X	X	X					
6	Dupe-4-4-Q03	↓	↓	1241	↓	↓	IV	↓	X	X	X	X					
7																	
8																	
9							9 — 10.23.03										
10																	

SAMPLES COLLECTED BY: JR

COURIER AND AIR BILL NUMBER:

COOLER TEMPERATURE UPON RECEIPT

RELINQUISHED BY	RECEIVED BY	DATE	TIME	SAMPLE'S CONDITION UPON RECEIPT
[signature]	S. [signature]	10-23-03	1315	
S. [signature]	[signature]	10-23-03	1425	

Distribution: White - Laboratory (To be returned with Analytical Report); Goldenrod - Project File; Yellow - Project Data Manager

0067

GEOFON INCORPORATED
22632 GOLDEN SPRINGS DR., SUITE 270
DIAMOND BAR, CA 91765 • (909) 396-7662 • FAX (909) 396-1455

CHAIN-OF-CUSTODY RECORD

LABORATORY COPY

MW-23

GEOFON's LAB COORDINATOR: Scott Buhmer	LAB COORDINATOR'S PHONE: 909 396 7662	LAB COORDINATOR'S FAX: 909 396 1455	LABORATORY SERVICE ID:	LABORATORY CONTACT: Kenny Chan	MAIL REPORT (COMPANY NAME): Geofon
PROJECT NAME: JPL GW Mon-4Q03	PROJECT LOCATION: MW-23	PROJECT NUMBER: 04-4428.10	LABORATORY PHONE: 909 590 1828	LABORATORY FAX: 909 590 1498	RECIPIENT NAME: Tony Ford
PROJECT CONTACT: Brad Shojaee	PROJECT PHONE NUMBER: 909 396 7662	PROJECT FAX: 909 396 1455	LABORATORY ADDRESS: 13760 Magnolia Ave.		ADDRESS: 22632 Golden Springs Dr. Ste 270
PROJECT ADDRESS: 4800 Oak Grove Dr.	CITY, STATE AND ZIPCODE: Pasadena, CA	CLIENT: US NAVY, SWDIV	CITY, STATE AND ZIPCODE: Chino, CA 91710		CITY, STATE AND ZIPCODE: Diamond Bar, CA 91765
PROJECT MANAGER: Tony Ford	PROJECT MANAGER'S PHONE: 909 396 7662	PROJECT MANAGER'S FAX: 909 396 1455			

5802

Item	Sample Identifier	Matrix	Date	Time	# of Cont.	Preservative	QC Level	T.A.T	524.2 (VOCs)	104 (314.0)	200.8 (Cr)	7196A (Cr VI)					Comments
1	MW-23-5	W	10/23/03	0712	4 5 (10.23.03)	HCl HNO3 None	III	Normal	X	X	X	X					
2	MW-23-4 (10.23.03)	↓	↓	0734	3 5 (10.23.03)	↓	↓	↓	X	X	~~X~~	~~X~~	10.23.03				~~MS/MSD~~ 10.23.03
3	MW-23-3	↓	↓	0754	↓	↓	↓	↓	X	X	X	X					
4	MW-23-2	↓	↓	0824	↓	↓	↓	↓	X	X	X	X					MS/MSD
5	MW-23-1	↓	↓	0901	↓	↓	↓	↓	X	X	X	X					
6	TB-2-10-23-03	↓	↓	—	2	HCl	↓	↓	X								
7	EB-2-10-23-03	↓	↓	0855	5	HCl HNO3 None	↓	↓	X	X	X	X					
8																	
9							10.23.03										
10																	

SAMPLES COLLECTED BY: JK

COURIER AND AIR BILL NUMBER:

COOLER TEMPERATURE UPON RECEIPT

RELINQUISHED BY	RECEIVED BY	DATE	TIME	SAMPLE'S CONDITION UPON RECEIPT
[signature]	[signature]	10-23-03	13:15	
	[signature]	10-23-03	14:25	

Distribution: White - Laboratory (To be returned with Analytical Report); Goldenrod - Project File; Yellow - Project Data Manager

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Sample Login: Check List

03-05802 (0470_ 177) (2202777_ 177)

10/24/03

Part 1: General Information

☐ Company Information	Name:	*GEOFON, Inc.*
	Address:	*22632 Golden Spring Dr Ste 270 ,Diamond Bar ,CA 91765*
☐ Project Information	Project Description:	*JPL*
	Project #:	*04.4428.10*
☐ Billing Information	P.O. #:	
	Bill Address:	*22632 Golden Spring Dr Ste 270 ,Diamond Bar ,CA 91765*
	Lab Project ID:	
	Client Database #:	*3*
☐ Receiving Information	Who Received Sample?	*Kenny Chan*
	Receiving Date/Time:	*10/23/03 1425*
	COC No.	*0061 0067*
☐ Shipping Information	Shipping Company	*APCL pick up*
	Packing Information:	*Cooler/Ice Chester*
	Cooler Temperature:	*3.6 °C*
☐ Container Information	Container Provider:	*Client*
☐ Sampling Information	Sampling Person:	*JR*
	Sampling Company:	*Client*
☐ Turn-Around-Time Option:		*Normal*
☐ QC Option:		*NEESA C*
☐ Disposal Option:		*Not specify*

Part 2: Sample Information

Seq. #	Sample ID (on COC)	Sample Sub-ID	APCL Sample ID	Matrix	Cont-tainer	Preser-vative	Vol, ml Am. g	# of Replica	Condition G, L, B	Collected mmddyy	Hold ?	Composite Group	TAT Days	
1	MW-12-5	Cr	03-05802-7	W	P	N	500	1	G	102303	N	0	9	☐
2	MW-12-4	Cr	03-05802-6	W	P	N	500	1	G	102303	N	0	9	☐
3	MW-12-3	Cr	03-05802-5	W	P	N	500	1	G	102303	N	0	9	☐
4	MW-12-2	Cr	03-05802-4	W	P	N	500	1	G	102303	N	0	9	☐
5	MW-12-1	Cr	03-05802-3	W	P	N	500	1	G	102303	N	0	9	☐
6	Dupe-4-4-Q03	Cr	03-05802-1	W	P	N	500	1	G	102303	N	0	9	☐
7	MW-23-5	Cr	03-05802-12	W	P	N	500	1	G	102303	N	0	9	☐
8	MW-23-4	Cr	03-05802-11	W	P	N	500	1	G	102303	N	0	9	☐
9	MW-23-3	Cr	03-05802-10	W	P	N	500	1	G	102303	N	0	9	☐
10	MW-23-2	Cr	03-05802-9	W	P	N	500	2	G	102303	N	0	9	☐
11	MW-23-1	Cr	03-05802-8	W	P	N	500	1	G	102303	N	0	9	☐
12	EB-2-10-23-03	Cr	03-05802-2	W	P	N	500	1	G	102303	N	0	9	☐

Part 3: Analysis Information

Test Items: ☐ *200.7/6010B* Chromium, Cr, by ICP

Seq. #	Client"s Sample ID (as given on COC)	Sample Sub-ID	APCL Sample ID	Matrix	CR	
1	MW-12-5	Cr	03-05802-7	W	X	☐
2	MW-12-4	Cr	03-05802-6	W	X	☐
3	MW-12-3	Cr	03-05802-5	W	X	☐
4	MW-12-2	Cr	03-05802-4	W	X	☐
5	MW-12-1	Cr	03-05802-3	W	X	☐
6	Dupe-4-4-Q03	Cr	03-05802-1	W	X	☐
7	MW-23-5	Cr	03-05802-12	W	X	☐
8	MW-23-4	Cr	03-05802-11	W	X	☐
9	MW-23-3	Cr	03-05802-10	W	X	☐
10	MW-23-2	Cr	03-05802-9	W	X	☐
11	MW-23-1	Cr	03-05802-8	W	X	☐
12	EB-2-10-23-03	Cr	03-05802-2	W	X	☐

☐ Client"s Requirement: **PERFORM MS/MSD ON SAMPLE #** 9

Login By JASON M. NARIO

Check By MK

Applied P & Ch Laboratory
13760 Magnolia Ave., Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Sample Receiving Checklist

APCL ServiceID 5802 **Client Name/Project:** Geocon JPL

1. Sample Arrival

Date/Time Received 10/23/03 1425 Date/Time Opened 10/23/03 1425 By (name): Khem Sham

Custody Transfer: ☐ Client ☐ Golden State ☐ UPS ☐ US Mail ☐ FedEx ☑ APCL Empl: Scott B.

2. Chain-of-Custody (CoC)

☑ With Samples? ☐ Faxed? ☑ Client has Copy? ☐ Signed, dated? By:
☑ Project ID? ☑ Analyses Clear? ☐ Hold Samples? #on Hold ____ # Received 13
☐ CoC/Docs Zip-Locked under lid? ☐ Compos.#: ___ ☑ #Samples OK?
☐ Discrepancies? ☐ Client notified? ☐ Response (attach docs): ____

3. Shipping Container/Cooler

☑ Cooler Used? # of 1 Cooled by: ☑ Ice ☐ Blue Ice ☐ Dry Ice ☐ None
Temp °C 3.6
(Cooler temperature measured from temp blank if present, otherwise measured from the cooler).
Cooler Custody Seal? ☐ Absent ☐ Intact ☐ Tampered?

4. Sample Preservation

☐ **pH <2** ☐ pH >12
If Not, pH = ____ Preserved by: ☐ Client ☐ APCL ☐ Third Party ____

5. Holding-time Requirements

☐ pH 24hr ☐ BACT 6/24hr ☑ Cr^{VI} 24hr ☐ NO_3^- 48hr ☐ BOD 48hr
☐ Cl_2 ASAP ☐ Turbidity 48hr ☐ DO ASAP ☐ Fe(II) ASAP
☐ HT Expired? ☐ Client notified?

6. Sample Container Condition

☑ Intact? ☐ Broken? ☐ Documented? Number: ____
Type: ☑ plastic ☑ glass ☐ Tube: brass/SS ☐ Tedlar Bag
☑ Quantity OK? ☐ Leaking? ☐ Anomaly?
☑ Caps tight? ☐ Air Bubbles? ☐ Anomaly?
Labels: ☐ Unique ID? ☑ Date/Time ☐ Preserved?

7. Turn Around Time

☐ RUSH TAT: ____ ☑ Std (7-10 days) ☐ Not Marked

8. Sample Matrix

☐ Drinking H_2O ☐ Other Liq ☐ Soil ☐ Wipe ☐ Polymer ☐ Air ☐ Other: ____
☑ Ground H_2O ☐ Sludge ☐ Filter ☐ Oil/Petro ☐ Paint ☐ W. Water ☐ Extract ☐ Unknown

9. Pre-Login Check List Completed & OK?

☑ ALL OK? (if not, attach docs) ☐ Client Contact? (Name:____)Date/Time:____

Received/Checked by: [signature] Printed: 23 Oct 2003 7:22 a.m.

*HT: Samples must be analyzed for results to reflect total concentrations. Results generated outside required of holding times are considered minimal values and may be used to define waste as hazardous but not as non-hazardous.

DocumentFile: [neal.texfiles]smprcl.tex.

Applied P & Ch Laboratories
Project: JPL GW Mon-4Q03, 04.4428.10

ATL Work Order: 065631

Advanced Technology Laboratories

3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Table of Contents

ATL Work Order: 065631

Advanced Technology Laboratories 3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *19-Nov-03*

CLIENT: Applied P & Ch Laboratories
Project: JPL GW Mon-4Q03, 04.4428.10
Lab Order: 065631

CASE NARRATIVE

Results were J-Flag. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

QC Batch R32297 (EPA 200.8)

Matrix Spike (MS) and /or Matrix Spike Duplicate (MSD) are outside recovery criteria; however, the analytical batch was validated by the Laboratory Control Sample (LCS).

Advanced Technology Laboratories *3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040*

Applied P & Ch Laboratory

13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Subcontract Chain of Custody

Please Print in pen Page 1 of 1

Subcontract Lab: ATL Contact: Puri Tel #: (562) 989-4045 Fax #: (562) 989-4040
Address: 3275 Walnut Avenue City: Signal Hill State: CA Zip code: 90807
APCL Client: #5802 APCL Contact: Kenny Chan
Project Name/Code JPL GW Mon - 4Q03 Job # 04.4428.10
BILL TO APCL Sub Quotation # —
Due Date: ☒ regular ☐ rush: ___ days ___ hours Sampled by: JR

Field Sample ID No.	Sample Description ID	Date Collected	Time Collected	Sample Matrix	Preservation	# of Containers	Cr by 200.0	Analysis Items	Remarks
	MW-12-5	102303	1049	W	HNO_3	1	X		Level 4 pkg and EDD.
	MW-12-4	102303	1113	W	HNO_3	1	X		
	MW-12-3	102303	1132	W	HNO_3	1	X		
	MW-12-2	102303	1150	W	HNO_3	1	X		
	MW-12-1	102303	1216	W	HNO_3	1	X		
	Dupe-4-4-Q03	102303	1241	W	HNO_3	1	X		
	MW-23-5	102303	0712	W	HNO_3	1	X		
	MW-23-4	102303	0734	W	HNO_3	1	X		
	MW-23-3	102303	0751	W	HNO_3	1	X		
	MW-23-2	102303	0824	W	HNO_3	2	X		← MS/MSD
	MW-23-1	102303	0901	W	HNO_3	1	X		
	EB-2-10-23-03	102303	0855	W	HNO_3	1	X		

White – With report
Yellow – Lab copy
Pink – Originator

QC Requirement: ☐ Regular; ☐ QA/QC Report; ☐ WIP; ☐ Raw Data; ☐ Extended Raw Data ☐ CLP; ☐ ACE ☐ AFCEE ☒ NEESA D (E, C or D); ☒ Other EDD (Please specify)
Sample Disposal: ☐ Return ☐ Disposal by APCL ☐ Hold for _____ days after receiving date. If not specified, samples will be discarded 45 days after samples are received.
Sample Conditions: ☒ Intact; ☐ Broken. Cooler Seal: ☒ Intact; ☐ Broken; ☐ None. Tag # _____ Temperature: ☐ Room ☒ Cold (2.8 °C).
Relinquished by _____ Date/Time 10/24/3 1080 Received by _____ Date/Time 10/31/03 / 1440
Relinquished by _____ Date/Time / Received by _____ Date/Time /

APCL USE ONLY Service # Note:

Clients understand that all terms described in the proposals, quotations for this project, and/or the general terms provided in the current APCL price schedules will be followed. APCL reserves the right to terminate its service or withhold delivery of any reports, if in APCL's sole discretion the terms of the project have been breached.

Advanced Technology Laboratories

Date: *10-Nov-03*

CLIENT: Applied P & Ch Laboratories
Project: JPL GW Mon-4Q03, 04.4428.10
Lab Order: 065631
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
065631-001A	MW-12-5	Water	10/23/2003	10/31/2003	11/10/2003
065631-002A	MW-12-4	Water	10/23/2003	10/31/2003	11/10/2003
065631-003A	MW-12-3	Water	10/23/2003	10/31/2003	11/10/2003
065631-004A	MW-12-2	Water	10/23/2003	10/31/2003	11/10/2003
065631-005A	MW-12-1	Water	10/23/2003	10/31/2003	11/10/2003
065631-006A	Dupe-4-4-Q03	Water	10/23/2003	10/31/2003	11/10/2003
065631-007A	MW-23-5	Water	10/23/2003	10/31/2003	11/10/2003
065631-008A	MW-23-4	Water	10/23/2003	10/31/2003	11/10/2003
065631-009A	MW-23-3	Water	10/23/2003	10/31/2003	11/10/2003
065631-010A	MW-23-2	Water	10/23/2003	10/31/2003	11/10/2003
065631-011A	MW-23-1	Water	10/23/2003	10/31/2003	11/10/2003
065631-012A	EB-2-10-23-03	Water	10/23/2003	10/31/2003	11/10/2003

Advanced Technology Laboratories *3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040*

Advanced Technology Laboratories

Date: *10-Nov-03*

CLIENT:	Applied P & Ch Laboratories	**Client Sample ID:**	MW-12-5
Lab Order:	065631		
Project:	JPL GW Mon-4Q03, 04.4428.10	**Collection Date:**	10/23/2003 10:49:00 AM
Lab ID:	065631-001A	**Matrix:**	WATER

Analyte	Result	Qual	MDL	PQL	Units	DF	Date Analyzed
ICP-MS METALS			**EPA 200.8**				Analyst: **NS**
RunID: ICP4_031105A	QC Bach: R32297			PrepDate:			
Chromium	4.7		0.11	1.0	µg/L	1	11/5/2003 12:33:35 P

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceed holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories 3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *10-Nov-03*

CLIENT:	Applied P & Ch Laboratories	**Client Sample ID:**	MW-12-4
Lab Order:	065631		
Project:	JPL GW Mon-4Q03, 04.4428.10	**Collection Date:**	10/23/2003 11:13:00 AM
Lab ID:	065631-002A	**Matrix:**	WATER

Analyte	Result	Qual	MDL	PQL	Units	DF	Date Analyzed
ICP-MS METALS			**EPA 200.8**				Analyst: **NS**
RunID: ICP4_031105A	QC Bach: R32297			PrepDate:			
Chromium	2.8		0.11	1.0	µg/L	1	11/5/2003 12:36:04 P

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quantitation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range
- H-Samples exceed holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories 3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *10-Nov-03*

CLIENT:	Applied P & Ch Laboratories	**Client Sample ID:**	MW-12-3
Lab Order:	065631		
Project:	JPL GW Mon-4Q03, 04.4428.10	**Collection Date:**	10/23/2003 11:32:00 AM
Lab ID:	065631-003A	**Matrix:**	WATER

Analyte	Result	Qual	MDL	PQL	Units	DF	Date Analyzed
ICP-MS METALS			**EPA 200.8**				Analyst: **NS**
RunID: ICP4_031105A	QC Bach: R32297			PrepDate:			
Chromium	1.6		0.11	1.0	µg/L	1	11/5/2003 12:38:34 P

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceed holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories 3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *10-Nov-03*

CLIENT: Applied P & Ch Laboratories
Client Sample ID: MW-12-2
Lab Order: 065631
Project: JPL GW Mon-4Q03, 04.4428.10
Collection Date: 10/23/2003 11:50:00 AM
Lab ID: 065631-004A
Matrix: WATER

Analyte	Result	Qual	MDL	PQL	Units	DF	Date Analyzed
ICP-MS METALS			**EPA 200.8**				Analyst: **NS**
RunID: ICP4_031105A	QC Bach: R32297			PrepDate:			
Chromium	2.9		0.11	1.0	µg/L	1	11/5/2003 12:41:03 P

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceed holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories 3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *10-Nov-03*

CLIENT: Applied P & Ch Laboratories
Client Sample ID: MW-12-1
Lab Order: 065631
Project: JPL GW Mon-4Q03, 04.4428.10
Collection Date: 10/23/2003 12:16:00 PM
Lab ID: 065631-005A
Matrix: WATER

Analyte	Result	Qual	MDL	PQL	Units	DF	Date Analyzed
ICP-MS METALS			**EPA 200.8**				Analyst: **NS**
RunID: ICP4_031105A QC Bach: R32297			PrepDate:				
Chromium	8.1		0.11	1.0	µg/L	1	11/5/2003 12:43:34 P

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceed holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories 3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *10-Nov-03*

CLIENT:	Applied P & Ch Laboratories	**Client Sample ID:**	Dupe-4-4-Q03
Lab Order:	065631		
Project:	JPL GW Mon-4Q03, 04.4428.10	**Collection Date:**	10/23/2003 12:41:00 PM
Lab ID:	065631-006A	**Matrix:**	WATER

Analyte	Result	Qual	MDL	PQL	Units	DF	Date Analyzed
ICP-MS METALS			**EPA 200.8**				Analyst: **NS**
RunID: ICP4_031105A QC Bach: R32297				PrepDate:			
Chromium	8.4		0.11	1.0	µg/L	1	11/5/2003 12:46:05 P

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceed holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

CLIENT:	Applied P & Ch Laboratories	**Client Sample ID:**	MW-23-5
Lab Order:	065631		
Project:	JPL GW Mon-4Q03, 04.4428.10	**Collection Date:**	10/23/2003 7:12:00 AM
Lab ID:	065631-007A	**Matrix:**	WATER

Analyte	Result	Qual	MDL	PQL	Units	DF	Date Analyzed
ICP-MS METALS			**EPA 200.8**				Analyst: **NS**
RunID: ICP4_031105A QC Bach: R32297			PrepDate:				
Chromium	1.8		0.11	1.0	µg/L	1	11/5/2003 12:48:36 P

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceed holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories *3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040*

Advanced Technology Laboratories

Date: *10-Nov-03*

CLIENT:	Applied P & Ch Laboratories	**Client Sample ID:**	MW-23-4
Lab Order:	065631		
Project:	JPL GW Mon-4Q03, 04.4428.10	**Collection Date:**	10/23/2003 7:34:00 AM
Lab ID:	065631-008A	**Matrix:**	WATER

Analyte	Result	Qual	MDL	PQL	Units	DF	Date Analyzed
ICP-MS METALS			**EPA 200.8**				Analyst: **NS**
RunID: ICP4_031105A	QC Bach: R32297			PrepDate:			
Chromium	2.6		0.11	1.0	µg/L	1	11/5/2003 12:51:08 P

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quantitation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range
- H-Samples exceed holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories 3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *10-Nov-03*

CLIENT:	Applied P & Ch Laboratories	**Client Sample ID:**	MW-23-3
Lab Order:	065631		
Project:	JPL GW Mon-4Q03, 04.4428.10	**Collection Date:**	10/23/2003 7:54:00 AM
Lab ID:	065631-009A	**Matrix:**	WATER

Analyte	Result	Qual	MDL	PQL	Units	DF	Date Analyzed
ICP-MS METALS			**EPA 200.8**				Analyst: **NS**
RunID: ICP4_031105A	QC Bach: R32297			PrepDate:			
Chromium	4.2		0.11	1.0	µg/L	1	11/5/2003 12:58:49 P

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quantitation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range
- H-Samples exceed holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories 3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *10-Nov-03*

CLIENT:	Applied P & Ch Laboratories	**Client Sample ID:**	MW-23-2
Lab Order:	065631		
Project:	JPL GW Mon-4Q03, 04.4428.10	**Collection Date:**	10/23/2003 8:24:00 AM
Lab ID:	065631-010A	**Matrix:**	WATER

Analyte	Result	Qual	MDL	PQL	Units	DF	Date Analyzed
ICP-MS METALS			**EPA 200.8**				Analyst: **NS**
RunID: ICP4_031105A	QC Bach: R32297			PrepDate:			
Chromium	3.5		0.11	1.0	µg/L	1	11/5/2003 1:01:22 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quantitation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range
- H-Samples exceed holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories 3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *10-Nov-03*

CLIENT:	Applied P & Ch Laboratories	**Client Sample ID:**	MW-23-1
Lab Order:	065631		
Project:	JPL GW Mon-4Q03, 04.4428.10	**Collection Date:**	10/23/2003 9:01:00 AM
Lab ID:	065631-011A	**Matrix:**	WATER

Analyte	Result	Qual	MDL	PQL	Units	DF	Date Analyzed
ICP-MS METALS			**EPA 200.8**				Analyst: **NS**
RunID: ICP4_031105A QC Bach: R32297			PrepDate:				
Chromium	4.6		0.11	1.0	µg/L	1	11/5/2003 1:06:25 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceed holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories 3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *10-Nov-03*

CLIENT:	Applied P & Ch Laboratories	**Client Sample ID:**	EB-2-10-23-03
Lab Order:	065631		
Project:	JPL GW Mon-4Q03, 04.4428.10	**Collection Date:**	10/23/2003 8:55:00 AM
Lab ID:	065631-012A	**Matrix:**	WATER

Analyte	Result	Qual	MDL	PQL	Units	DF	Date Analyzed
ICP-MS METALS			**EPA 200.8**				Analyst: **NS**
RunID: ICP4_031105A	QC Bach: R32297			PrepDate:			
Chromium	ND		0.11	1.0	µg/L	1	11/5/2003 1:08:52 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quantitation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range
- H-Samples exceed holding time

Results are wet unless otherwise specified

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Date: *10-Nov-03*

CLIENT: Applied P & Ch Laboratories
Work Order: 065631
Project: JPL GW Mon-4Q03, 04.4428.10

ANALYTICAL QC SUMMARY REPORT

TestCode: 200.8_W

Sample ID: MB-R32297	SampType: MBLK	TestCode: 200.8_W	Units: µg/L	Prep Date:	Run ID: ICP4_031105A
Client ID: ZZZZZ	Batch ID: R32297	TestNo: EPA 200.8		Analysis Date: 11/5/2003	SeqNo: 480785

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	ND	1.0									

Sample ID: LCS-R32297	SampType: LCS	TestCode: 200.8_W	Units: µg/L	Prep Date:	Run ID: ICP4_031105A
Client ID: ZZZZZ	Batch ID: R32297	TestNo: EPA 200.8		Analysis Date: 11/5/2003	SeqNo: 480784

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	10.4	1.0	10	0	104	85	115	0	0		

Sample ID: 065631-010AMS	SampType: MS	TestCode: 200.8_W	Units: µg/L	Prep Date:	Run ID: ICP4_031105A
Client ID: MW-23-2	Batch ID: R32297	TestNo: EPA 200.8		Analysis Date: 11/5/2003	SeqNo: 480780

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	11.3	1.0	10	3.494	78	80	120	0	0		S

Sample ID: 065631-010AMSD	SampType: MSD	TestCode: 200.8_W	Units: µg/L	Prep Date:	Run ID: ICP4_031105A
Client ID: MW-23-2	Batch ID: R32297	TestNo: EPA 200.8		Analysis Date: 11/5/2003	SeqNo: 480781

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	11.26	1.0	10	3.494	77.7	80	120	11.3	0.301	20	S

Sample ID: 065631-010ADUP	SampType: DUP	TestCode: 200.8_W	Units: µg/L	Prep Date:	Run ID: ICP4_031105A
Client ID: MW-23-2	Batch ID: R32297	TestNo: EPA 200.8		Analysis Date: 11/5/2003	SeqNo: 480786

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	3.313	1.0	0	0	0	0	0	3.494	5.32	30	

Qualifiers:

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S - Spike Recovery outside accepted recovery limits
B - Analyte detected in the associated Method Blank
Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

0019

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CLIENT: Applied P & Ch Laboratories
Work Order: 065631
Project: JPL GW Mon-4Q03, 04.4428.10

ANALYTICAL QC SUMMARY REPORT

TestCode: 200.8_W

Sample ID: 065631-012ADUP	SampType: DUP	TestCode: 200.8_W	Units: µg/L	Prep Date:	Run ID: ICP4_031105A
Client ID: EB-2-10-23-03	Batch ID: R32297	TestNo: EPA 200.8		Analysis Date: 11/5/2003	SeqNo: 480787

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	ND	1.0	0	0	0	0	0	0	0	30	

Qualifiers:
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Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

0020