ANALYTICAL REPORT

Job Number: 320-7224-2

Job Description: Makua, Perchlorate in Limu

For:
ARDL, Inc
400 Aviation Drive
Mount Vernon, IL 62864

Attention: Dean Dickerson

Approved for release.
Karen M Sellers
Project Manager II
6/25/2014 2:52 PM

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06/25/2014

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The Lab Certification ID# is CA200005

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Qualifiers

LCMS

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
I	Ion Ratio outside of limits, value is EMPC.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Comments
This report contains results for Limu samples.

Receipt
The samples were received on 4/29/2014 9:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was -1.7º C. All samples were kept frozen until extraction.

LC/MS/MS-Perchlorate
Method 6850
Due to matrix interference, all samples in this report went through an additional clean up procedure consisting of a shake out with Methylene chloride. This optional cleanup is referenced in lab SOP (WS-LC-0012) for samples with high organic content.

The ion ratio in the following samples; MAK132L (320-7224-18), MAK138L (320-7224-21) is outside the acceptable range for confirmation of perchlorate; however, the detected amount was below the lower limit of quantitation.

The ion ratio used for compound verification was outside the acceptable limits; however, the samples were detected below the reporting limit: MAK132L (320-7224-18), MAK134L (320-7224-19)

The Isotope Dilution Analyte (IDA) recoveries associated with the following samples were below the method recommended limit: MAK130L (320-7224-17), MAK130L (320-7224-17 MS), MAK130L (320-7224-17 MSD), MAK132L (320-7224-18), MAK134L (320-7224-19), MAK135L (320-7224-20), MAK138L (320-7224-21). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the sample(s). The samples were diluted ten fold to reduce the affect of the matrix on the analyte response.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: ARDL, Inc
Project/Site: Makua, Perchlorate in Limu

TestAmerica Job ID: 320-7224-2

Client Sample ID: MAK130L — Lab Sample ID: 320-7224-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perchlorate	0.56	J	10	0.30	ug/Kg	1		6850	Total/NA

Client Sample ID: MAK132L — Lab Sample ID: 320-7224-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perchlorate	0.32	J I	10	0.30	ug/Kg	1		6850	Total/NA

Client Sample ID: MAK134L — Lab Sample ID: 320-7224-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perchlorate	0.34	J I	10	0.30	ug/Kg	1		6850	Total/NA

Client Sample ID: MAK135L — Lab Sample ID: 320-7224-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perchlorate	0.74	J	9.7	0.29	ug/Kg	1		6850	Total/NA

Client Sample ID: MAK138L — Lab Sample ID: 320-7224-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perchlorate	0.32	J	9.6	0.29	ug/Kg	1		6850	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MAK130L — Lab Sample ID: 320-7224-17

Date Collected: 03/27/14 08:20 — **Matrix: Solid**
Date Received: 04/29/14 09:20

Method: 6850 - Perchlorate by LC/MS or LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	0.56	J	10	0.30	ug/Kg		05/01/14 10:11	06/22/14 20:15	1

Client Sample ID: MAK132L — Lab Sample ID: 320-7224-18

Date Collected: 03/28/14 08:38 — **Matrix: Solid**
Date Received: 04/29/14 09:20

Method: 6850 - Perchlorate by LC/MS or LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	0.32	J I	10	0.30	ug/Kg		05/01/14 10:11	06/22/14 20:51	1

Client Sample ID: MAK134L — Lab Sample ID: 320-7224-19

Date Collected: 03/28/14 09:20 — **Matrix: Solid**
Date Received: 04/29/14 09:20

Method: 6850 - Perchlorate by LC/MS or LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	0.34	J I	10	0.30	ug/Kg		05/01/14 10:11	06/22/14 21:03	1

Client Sample ID: MAK135L — Lab Sample ID: 320-7224-20

Date Collected: 03/28/14 10:00 — **Matrix: Solid**
Date Received: 04/29/14 09:20

Method: 6850 - Perchlorate by LC/MS or LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	0.74	J	9.7	0.29	ug/Kg		05/01/14 10:11	06/22/14 21:15	1

Client Sample ID: MAK138L — Lab Sample ID: 320-7224-21

Date Collected: 03/28/14 11:32 — **Matrix: Solid**
Date Received: 04/29/14 09:20

Method: 6850 - Perchlorate by LC/MS or LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	0.32	J	9.6	0.29	ug/Kg		05/01/14 10:11	06/22/14 22:34	1

Default Detection Limits

Client: ARDL, Inc
Project/Site: Makua, Perchlorate in Limu

TestAmerica Job ID: 320-7224-2

Method: 6850 - Perchlorate by LC/MS or LC/MS/MS

Analyte	RL	MDL	Units	Method
Perchlorate	5.0	0.15	ug/Kg	6850

Method: 6850 - Perchlorate by LC/MS or LC/MS/MS

Lab Sample ID: MB 320-41554/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45352 — **Prep Batch: 41554**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	ND		5.0	0.15	ug/Kg		05/01/14 10:11	06/21/14 22:39	1

Lab Sample ID: MB 320-41554/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45355 — **Prep Batch: 41554**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	ND		5.0	0.15	ug/Kg		05/01/14 10:11	06/22/14 19:39	1

Lab Sample ID: LCS 320-41554/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45352 — **Prep Batch: 41554**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perchlorate	50.0	51.0		ug/Kg		102	80 - 120

Lab Sample ID: LCS 320-41554/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45355 — **Prep Batch: 41554**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perchlorate	50.0	45.4		ug/Kg		91	80 - 120

Lab Sample ID: 320-7224-17 MS — **Client Sample ID: MAK130L**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45355 — **Prep Batch: 41554**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Perchlorate	0.56	J	98.7	95.9		ug/Kg		97	80 - 120

Lab Sample ID: 320-7224-17 MSD — **Client Sample ID: MAK130L**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45355 — **Prep Batch: 41554**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perchlorate	0.56	J	95.5	93.2		ug/Kg		97	80 - 120	3	15

Lab Sample ID: INF 320-41554/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid
Analysis Batch: 45352 — **Prep Batch: 41554**

Analyte	Spike Added	INF Result	INF Qualifier	Unit	D	%Rec	%Rec. Limits
Perchlorate	50.0	51.5		ng/mL		103	70 - 130

Lab Sample ID: INF 320-41554/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid
Analysis Batch: 45355 — **Prep Batch: 41554**

Analyte	Spike Added	INF Result	INF Qualifier	Unit	D	%Rec	%Rec. Limits
Perchlorate	50.0	47.7		ng/mL		95	70 - 130

QC Association Summary

Client: ARDL, Inc
Project/Site: Makua, Perchlorate in Limu

TestAmerica Job ID: 320-7224-2

LCMS

Prep Batch: 41554

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-7224-17	MAK130L	Total/NA	Solid	SHAKE	
320-7224-17 MS	MAK130L	Total/NA	Solid	SHAKE	
320-7224-17 MSD	MAK130L	Total/NA	Solid	SHAKE	
320-7224-18	MAK132L	Total/NA	Solid	SHAKE	
320-7224-19	MAK134L	Total/NA	Solid	SHAKE	
320-7224-20	MAK135L	Total/NA	Solid	SHAKE	
320-7224-21	MAK138L	Total/NA	Solid	SHAKE	
INF 320-41554/3-A	Lab Control Sample		Solid	SHAKE	
LCS 320-41554/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
MB 320-41554/1-A	Method Blank	Total/NA	Solid	SHAKE	

Analysis Batch: 45352

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
INF 320-41554/3-A	Lab Control Sample		Solid	6850	41554
LCS 320-41554/2-A	Lab Control Sample	Total/NA	Solid	6850	41554
MB 320-41554/1-A	Method Blank	Total/NA	Solid	6850	41554

Analysis Batch: 45355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-7224-17	MAK130L	Total/NA	Solid	6850	41554
320-7224-17 MS	MAK130L	Total/NA	Solid	6850	41554
320-7224-17 MSD	MAK130L	Total/NA	Solid	6850	41554
320-7224-18	MAK132L	Total/NA	Solid	6850	41554
320-7224-19	MAK134L	Total/NA	Solid	6850	41554
320-7224-20	MAK135L	Total/NA	Solid	6850	41554
320-7224-21	MAK138L	Total/NA	Solid	6850	41554
INF 320-41554/3-A	Lab Control Sample		Solid	6850	41554
LCS 320-41554/2-A	Lab Control Sample	Total/NA	Solid	6850	41554
MB 320-41554/1-A	Method Blank	Total/NA	Solid	6850	41554

Client Sample ID: MAK130L — Lab Sample ID: 320-7224-17

Date Collected: 03/27/14 08:20 — **Matrix: Solid**
Date Received: 04/29/14 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			41554	05/01/14 10:11	HJA	TAL SAC
Total/NA	Analysis	6850		1	45355	06/22/14 20:15	JSS	TAL SAC

Client Sample ID: MAK132L — Lab Sample ID: 320-7224-18

Date Collected: 03/28/14 08:38 — **Matrix: Solid**
Date Received: 04/29/14 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			41554	05/01/14 10:11	HJA	TAL SAC
Total/NA	Analysis	6850		1	45355	06/22/14 20:51	JSS	TAL SAC

Client Sample ID: MAK134L — Lab Sample ID: 320-7224-19

Date Collected: 03/28/14 09:20 — **Matrix: Solid**
Date Received: 04/29/14 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			41554	05/01/14 10:11	HJA	TAL SAC
Total/NA	Analysis	6850		1	45355	06/22/14 21:03	JSS	TAL SAC

Client Sample ID: MAK135L — Lab Sample ID: 320-7224-20

Date Collected: 03/28/14 10:00 — **Matrix: Solid**
Date Received: 04/29/14 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			41554	05/01/14 10:11	HJA	TAL SAC
Total/NA	Analysis	6850		1	45355	06/22/14 21:15	JSS	TAL SAC

Client Sample ID: MAK138L — Lab Sample ID: 320-7224-21

Date Collected: 03/28/14 11:32 — **Matrix: Solid**
Date Received: 04/29/14 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			41554	05/01/14 10:11	HJA	TAL SAC
Total/NA	Analysis	6850		1	45355	06/22/14 22:34	JSS	TAL SAC

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Certification Summary

Client: ARDL, Inc
Project/Site: Makua, Perchlorate in Limu

TestAmerica Job ID: 320-7224-2

Laboratory: TestAmerica Sacramento

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		2928-01	01-31-16
Alaska (UST)	State Program	10	UST-055	12-18-13 *
Arizona	State Program	9	AZ0708	08-11-14
Arkansas DEQ	State Program	6	88-0691	06-17-14 *
California	State Program	9	2897	01-31-15
Colorado	State Program	8	N/A	08-31-14
Connecticut	State Program	1	PH-0691	06-30-15
Florida	NELAP	4	E87570	06-30-14
Guam	State Program	9	N/A	08-31-14
Hawaii	State Program	9	N/A	01-29-15
Illinois	NELAP	5	200060	03-17-15
Kansas	NELAP	7	E-10375	10-31-14
Louisiana	NELAP	6	30612	06-30-14
Michigan	State Program	5	9947	01-31-15
Nebraska	State Program	7	NE-OS-22-13	01-29-15
Nevada	State Program	9	CA44	07-31-14
New Jersey	NELAP	2	CA005	06-30-15
Oregon	NELAP	10	CA200005	01-29-15
Pennsylvania	NELAP	3	9947	03-31-15
South Carolina	State Program	4	87014	06-30-14 *
Texas	NELAP	6	T104704399-08-TX	05-31-15
US Fish & Wildlife	Federal		LE148388-0	12-31-14
USDA	Federal		P330-11-00436	12-30-14
USEPA UCMR	Federal	1	CA00044	11-06-14
Utah	NELAP	8	QUAN1	02-28-15
Washington	State Program	10	C581	05-05-15
West Virginia (DW)	State Program	3	9930C	12-31-14
Wyoming	State Program	8	8TMS-Q	01-29-15

* Certification renewal pending - certification considered valid.

Method Summary

Client: ARDL, Inc
Project/Site: Makua, Perchlorate in Limu

TestAmerica Job ID: 320-7224-2

Method	Method Description	Protocol	Laboratory
6850	Perchlorate by LC/MS or LC/MS/MS	EPA	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: ARDL, Inc
Project/Site: Makua, Perchlorate in Limu

TestAmerica Job ID: 320-7224-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-7224-17	MAK130L	Solid	03/27/14 08:20	04/29/14 09:20
320-7224-18	MAK132L	Solid	03/28/14 08:38	04/29/14 09:20
320-7224-19	MAK134L	Solid	03/28/14 09:20	04/29/14 09:20
320-7224-20	MAK135L	Solid	03/28/14 10:00	04/29/14 09:20
320-7224-21	MAK138L	Solid	03/28/14 11:32	04/29/14 09:20

LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2

SDG No.:

Instrument ID: A6 Analysis Batch Number: 45220

Lab Sample ID: ICISAV 320-45220/7 Client Sample ID:

Date Analyzed: 06/19/14 20:07 Lab File ID: 19JUN2014b_009.d GC Column: Xterra C18 ID: 3.2(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perchlorate	6.38	Peak Not Integrated	strumj	06/20/14 08:01

6850

LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2

SDG No.:

Instrument ID: A6 Analysis Batch Number: 45352

Lab Sample ID: ICV 320-45352/11 Client Sample ID:

Date Analyzed: 06/21/14 16:03 Lab File ID: 21JUN2014b_013.d GC Column: Xterra C18 ID: 3.2(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perchlorate	6.41		strumj	06/22/14 14:22

Lab Sample ID: LCS 320-41554/2-A Client Sample ID:

Date Analyzed: 06/21/14 22:51 Lab File ID: 21JUN2014b_047.d GC Column: Xterra C18 ID: 3.2(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perchlorate	6.41	Peak Not Integrated	strumj	06/22/14 14:37

6850

LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2

SDG No.:

Instrument ID: A6 Analysis Batch Number: 45355

Lab Sample ID: STD01 320-45355/3 IC Client Sample ID:

Date Analyzed: 06/22/14 10:49 Lab File ID: 22JUN2014a_005.d GC Column: Xterra C18 ID: 3.2(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
18-O Perchlorate	6.39	Peak Not Integrated	strumj	06/22/14 15:02

Lab Sample ID: STD04 320-45355/6 IC Client Sample ID:

Date Analyzed: 06/22/14 11:25 Lab File ID: 22JUN2014a_008.d GC Column: Xterra C18 ID: 3.2(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
18-O Perchlorate	6.39	Peak Not Integrated	strumj	06/22/14 15:02

Lab Sample ID: ICV 320-45355/11 Client Sample ID:

Date Analyzed: 06/22/14 12:25 Lab File ID: 22JUN2014a_013.d GC Column: Xterra C18 ID: 3.2(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perchlorate	6.39	Peak Not Integrated	strumj	06/22/14 14:41

Lab Sample ID: LCS 320-41554/2-A Client Sample ID:

Date Analyzed: 06/22/14 19:51 Lab File ID: 22JUN2014a_051.d GC Column: Xterra C18 ID: 3.2(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perchlorate	6.39	Peak Not Integrated	strumj	06/23/14 07:25

Lab Sample ID: INF 320-41554/3-A Client Sample ID:

Date Analyzed: 06/22/14 20:03 Lab File ID: 22JUN2014a_052.d GC Column: Xterra C18 ID: 3.2(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perchlorate	6.41	Peak Not Integrated	strumj	06/23/14 07:25

6850

LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2

SDG No.:

Instrument ID: A6 Analysis Batch Number: 45355

Lab Sample ID: 320-7224-19 Client Sample ID: MAK134L

Date Analyzed: 06/22/14 21:03 Lab File ID: 22JUN2014a_057.d GC Column: Xterra C18 ID: 3.2(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perchlorate	6.49	Shouldering	strumj	06/23/14 07:47

Lab Sample ID: 320-7224-20 Client Sample ID: MAK135L

Date Analyzed: 06/22/14 21:15 Lab File ID: 22JUN2014a_058.d GC Column: Xterra C18 ID: 3.2(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perchlorate	6.42	Baseline	strumj	06/23/14 07:47

6850

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
LC6850IC_00006	07/06/14	05/22/14	MIllipore Water, Lot M05222014	25 mL	LC6850IM_00005	125 uL	Perchlorate	5 ng/mL
.LC6850IM_00005	07/06/14	01/06/14	MIllipore Water, Lot M01062014	25 mL	LC6850TA_00006	25 uL	Perchlorate	1 ug/mL
..LC6850TA_00006	02/28/15	AccuStandard, Inc., Lot 213025072			(Purchased Reagent)		Perchlorate	1000 ug/mL
LC6850IS_00024	10/08/14	10/08/13	MIllipore Water, Lot M10072013	103.519 g	LC6850IS_00023	1.2547 g	18-O Perchlorate	1.00733 ug/mL
.LC6850IS_00023	12/20/22	Cambridge Isotope Laboratories, Lot SDCD-001			(Purchased Reagent)		18-O Perchlorate	83.11 ug/mL
LC6850L1_00006	11/01/14	05/22/14	MIllipore Water, Lot M05222014	25 mL	LC6850IS_00026	250 uL	18-O Perchlorate	10.0068 ng/mL
					LC6850SP_00020	37.5 uL	Perchlorate	0.15 ng/mL
.LC6850IS_00026	05/22/15	05/22/14	MIllipore Water, Lot M10072013	104 g	LC6850IS_00025	1.2522 g	18-O Perchlorate	1.00068 ug/mL
..LC6850IS_00025	02/27/24	Cambridge Isotope Laboratories, Lot SDDG-013			(Purchased Reagent)		18-O Perchlorate	83.11 ug/mL
.LC6850SP_00020	11/01/14	05/22/14	MIllipore Water, Lot M01062014	25 mL	LC6850SP_00019	2.5 mL	Perchlorate	0.1 ug/mL
..LC6850SP_00019	11/01/14	05/01/14	MIllipore Water, Lot 042914	50 mL	LC6850TA_00005	50 uL	Perchlorate	1 ug/mL
...LC6850TA_00005	01/06/15	Absolute Standards, Inc., Lot 121213			(Purchased Reagent)		Perchlorate	1000 ug/mL
LC6850L2_00006	11/01/14	05/22/14	MIllipore Water, Lot M05222014	25 mL	LC6850IS_00026	250 uL	18-O Perchlorate	10.0068 ng/mL
					LC6850SP_00020	75 uL	Perchlorate	0.3 ng/mL
.LC6850IS_00026	05/22/15	05/22/14	MIllipore Water, Lot M10072013	104 g	LC6850IS_00025	1.2522 g	18-O Perchlorate	1.00068 ug/mL
..LC6850IS_00025	02/27/24	Cambridge Isotope Laboratories, Lot SDDG-013			(Purchased Reagent)		18-O Perchlorate	83.11 ug/mL
.LC6850SP_00020	11/01/14	05/22/14	MIllipore Water, Lot M01062014	25 mL	LC6850SP_00019	2.5 mL	Perchlorate	0.1 ug/mL
..LC6850SP_00019	11/01/14	05/01/14	MIllipore Water, Lot 042914	50 mL	LC6850TA_00005	50 uL	Perchlorate	1 ug/mL
...LC6850TA_00005	01/06/15	Absolute Standards, Inc., Lot 121213			(Purchased Reagent)		Perchlorate	1000 ug/mL
LC6850L3_00006	11/01/14	05/22/14	MIllipore Water, Lot M05222014	50 mL	LC6850IS_00026	500 uL	18-O Perchlorate	10.0068 ng/mL
					LC6850SP_00020	250 uL	Perchlorate	0.5 ng/mL
.LC6850IS_00026	05/22/15	05/22/14	MIllipore Water, Lot M10072013	104 g	LC6850IS_00025	1.2522 g	18-O Perchlorate	1.00068 ug/mL
..LC6850IS_00025	02/27/24	Cambridge Isotope Laboratories, Lot SDDG-013			(Purchased Reagent)		18-O Perchlorate	83.11 ug/mL
.LC6850SP_00020	11/01/14	05/22/14	MIllipore Water, Lot M01062014	25 mL	LC6850SP_00019	2.5 mL	Perchlorate	0.1 ug/mL
..LC6850SP_00019	11/01/14	05/01/14	MIllipore Water, Lot 042914	50 mL	LC6850TA_00005	50 uL	Perchlorate	1 ug/mL
...LC6850TA_00005	01/06/15	Absolute Standards, Inc., Lot 121213			(Purchased Reagent)		Perchlorate	1000 ug/mL
LC6850L4_00006	11/01/14	05/22/14	MIllipore Water, Lot M05222014	25 mL	LC6850IS_00026	250 uL	18-O Perchlorate	10.0068 ng/mL
					LC6850SP_00019	25 uL	Perchlorate	1 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.LC6850IS_00026	05/22/15	05/22/14	MIllipore Water, Lot M10072013	104 g	LC6850IS_00025	1.2522 g	18-O Perchlorate	1.00068 ug/mL
..LC6850IS_00025	02/27/24	Cambridge Isotope Laboratories, Lot SDDG-013			(Purchased Reagent)		18-O Perchlorate	83.11 ug/mL
.LC6850SP_00019	11/01/14	05/01/14	MIllipore Water, Lot 042914	50 mL	LC6850TA_00005	50 uL	Perchlorate	1 ug/mL
..LC6850TA_00005	01/06/15	Absolute Standards, Inc., Lot 121213			(Purchased Reagent)		Perchlorate	1000 ug/mL
LC6850L6_00006	11/01/14	05/22/14	MIllipore Water, Lot M05222014	25 mL	LC6850IS_00026	250 uL	18-O Perchlorate	10.0068 ng/mL
					LC6850SP_00019	125 uL	Perchlorate	5 ng/mL
.LC6850IS_00026	05/22/15	05/22/14	MIllipore Water, Lot M10072013	104 g	LC6850IS_00025	1.2522 g	18-O Perchlorate	1.00068 ug/mL
..LC6850IS_00025	02/27/24	Cambridge Isotope Laboratories, Lot SDDG-013			(Purchased Reagent)		18-O Perchlorate	83.11 ug/mL
.LC6850SP_00019	11/01/14	05/01/14	MIllipore Water, Lot 042914	50 mL	LC6850TA_00005	50 uL	Perchlorate	1 ug/mL
..LC6850TA_00005	01/06/15	Absolute Standards, Inc., Lot 121213			(Purchased Reagent)		Perchlorate	1000 ug/mL
LC6850L7_00006	11/01/14	05/22/14	MIllipore Water, Lot M05222014	25 mL	LC6850IS_00026	250 uL	18-O Perchlorate	10.0068 ng/mL
					LC6850SP_00019	250 uL	Perchlorate	10 ng/mL
.LC6850IS_00026	05/22/15	05/22/14	MIllipore Water, Lot M10072013	104 g	LC6850IS_00025	1.2522 g	18-O Perchlorate	1.00068 ug/mL
..LC6850IS_00025	02/27/24	Cambridge Isotope Laboratories, Lot SDDG-013			(Purchased Reagent)		18-O Perchlorate	83.11 ug/mL
.LC6850SP_00019	11/01/14	05/01/14	MIllipore Water, Lot 042914	50 mL	LC6850TA_00005	50 uL	Perchlorate	1 ug/mL
..LC6850TA_00005	01/06/15	Absolute Standards, Inc., Lot 121213			(Purchased Reagent)		Perchlorate	1000 ug/mL
LC6850L8_00006	11/01/14	05/22/14	MIllipore Water, Lot M05222014	25 mL	LC6850IS_00026	250 uL	18-O Perchlorate	10.0068 ng/mL
					LC6850SP_00019	500 uL	Perchlorate	20 ng/mL
.LC6850IS_00026	05/22/15	05/22/14	MIllipore Water, Lot M10072013	104 g	LC6850IS_00025	1.2522 g	18-O Perchlorate	1.00068 ug/mL
..LC6850IS_00025	02/27/24	Cambridge Isotope Laboratories, Lot SDDG-013			(Purchased Reagent)		18-O Perchlorate	83.11 ug/mL
.LC6850SP_00019	11/01/14	05/01/14	MIllipore Water, Lot 042914	50 mL	LC6850TA_00005	50 uL	Perchlorate	1 ug/mL
..LC6850TA_00005	01/06/15	Absolute Standards, Inc., Lot 121213			(Purchased Reagent)		Perchlorate	1000 ug/mL
LC6850SP_00016	07/06/14	01/06/14	MIllipore Water, Lot M01062014	50 mL	LC6850TA_00005	50 uL	Perchlorate	1 ug/mL
.LC6850TA_00005	01/06/15	Absolute Standards, Inc., Lot 121213			(Purchased Reagent)		Perchlorate	1000 ug/mL

Reagent

LC6850IS_00023

Cambridge Isotope Laboratories, Inc.

50 Frontage Road, Andover, MA 01810-5413 USA
800.322.1174 (N.AMERICA) 978.749.8000 (INTERNATIONAL)
www.isotope.com

CERTIFICATE OF ANALYSIS

Product Name: (Isotopic Label & Enrichment Specification) — PERCHLORIC ACID, SODIUM SALT (18O4, 90%+) 100 UG/ML IN WATER

Lot Number: SDCD-001

Catalog Number: OLM-7310-S

Product Information

Chemical Purity Specification:	≥98%
Labeled CAS Number:	NA
Unlabeled CAS Number:	7601-89-0
MW of fully enriched product:	130.4
Chemical Formula:	NaCl*O4
Storage:	Store at room temperature away from light and moisture.
Stability:	See storage and expiration date.

Certification

Cambridge Isotope Laboratories, Inc. guarantees that this material meets or exceeds the specifications stated. Absolute identity as well as chemical and isotopic purities are assured by the use of unambiguous synthetic routes and multiple chemical analyses whenever possible. Results are representative of QC testing at time of release from Quality Control unless otherwise stated.

Volumetric measurements were made with Class A glassware. Gravimetry is traceable to the NIST through calibrated balances and certified, calibrated, standard weights. The calibrations are traceable to the NIST under Test No. 822/270236-04. The calibrations also meet specifications outlined in ISO 9001, ISO/IEC 17025, ANSI/NSCL Z540-1-1994, NCR Document 10CFR50 Appendix B, and applicable subdocuments.

This COA references the bulk catalog number before packaging. The COA also applies to the CIL finished good catalog number . Some possible packaging sizes and their corresponding suffix are -1.2, -1, -0.5, -10, or -0.1.

Approved by: T. J. Eckersley

Timothy J. Eckersley, Ph.D., Quality Assurance

Quality Control Tests and Results

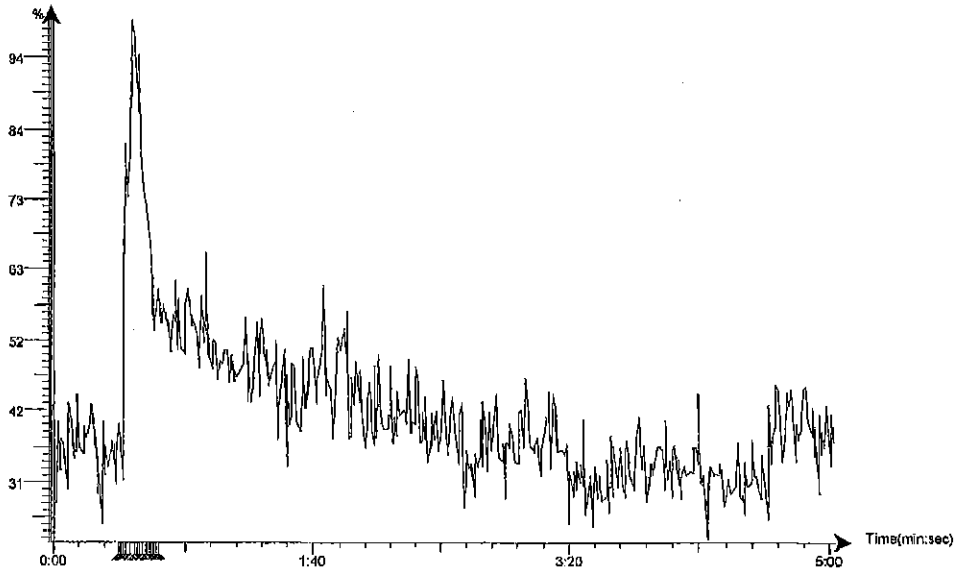
QC Release Date	12/20/2012
Expiration Date	12/20/2022
Concentration Based on Gravimetry	102 µg/mL
Chemical Purity of Neat Material(s)	98%
LC/MS for Concentration	90.9 ± 1.4 µg/mL (k=2)

130.4
− 22.99 Na
+ 1.01 H
108.42/130.4 = 0.8314

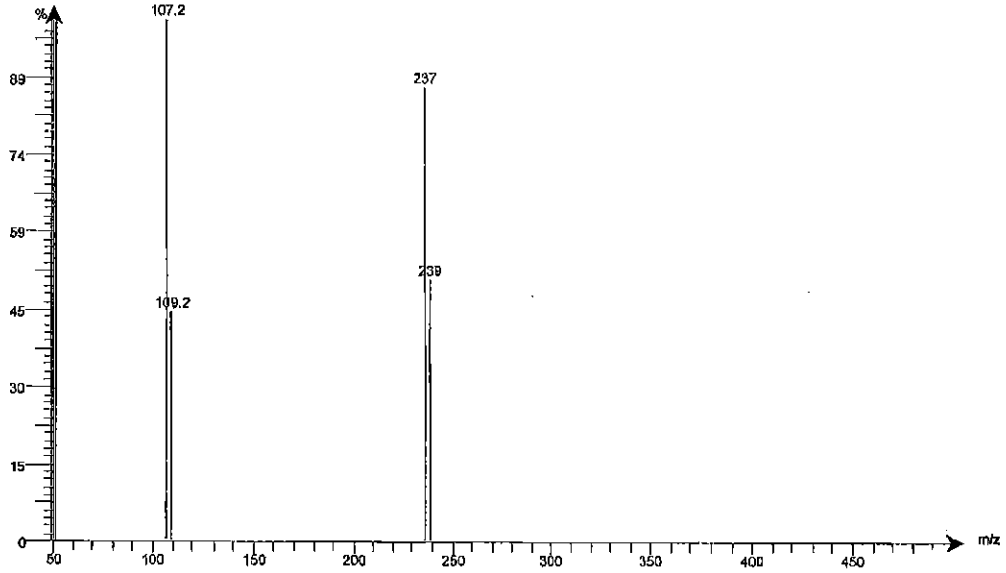
102 µg/mL NaPerc × 0.98 purity × 108.42 Perc-H / 130.4 NaPerc = 83.11 µg/mL Perchlorate-H.

DEL 1-4-12 06/25/2014

TIC
perchloric acid olm7310s sdcd001.datx;
Intensity Max: 9.5E8



Spectrum 0:25, 0:26, 0:27, .. 0:40, 0:41, 0:41 (30 indices)
perchloric acid olm7310s sdcd001.datx;
Intensity ESI - Max: 6.7E8



Reagent

LC6850IS_00025

Cambridge Isotope Laboratories, Inc.

50 Frontage Road, Andover, MA 01810-5413 USA
800.322.1174 (N.AMERICA) 978.749.8000 (INTERNATIONAL)
www.isotope.com

CERTIFICATE OF ANALYSIS

Product Name: PERCHLORIC ACID, SODIUM SALT
(Isotopic Label & Enrichment Specification) (18O4, 90%+) 100 UG/ML IN WATER

Lot Number: SDDG-013

Catalog Number: OLM-7310-S

R. 3/6/14 TQP
scanned 5/22/14

Product Information

Chemical Purity Specification:	≥ 98%
Labeled CAS Number:	NA
Unlabeled CAS Number:	7601-89-0
MW*:	130.4
Chemical Formula:	NaCl*O4
Storage:	Store at room temperature away from light and moisture.
Stability:	See storage and expiration date.

Certification

Cambridge Isotope Laboratories, Inc. guarantees that this material meets or exceeds the specifications stated. Absolute identity as well as chemical and isotopic purities are assured by the use of unambiguous synthetic routes and multiple chemical analyses whenever possible. Results are representative of QC testing at time of release from Quality Control unless otherwise stated.

Volumetric measurements were made with Class A glassware. Gravimetry is traceable to the NIST through calibrated balances and certified, calibrated, standard weights. The calibrations are traceable to the NIST under Test No. 822/270236-04. The calibrations also meet specifications outlined in ISO 9001, ISO/IEC 17025, ANSI/NSCL Z540-1-1994, NCR Document 10CFR50 Appendix B, and applicable subdocuments.

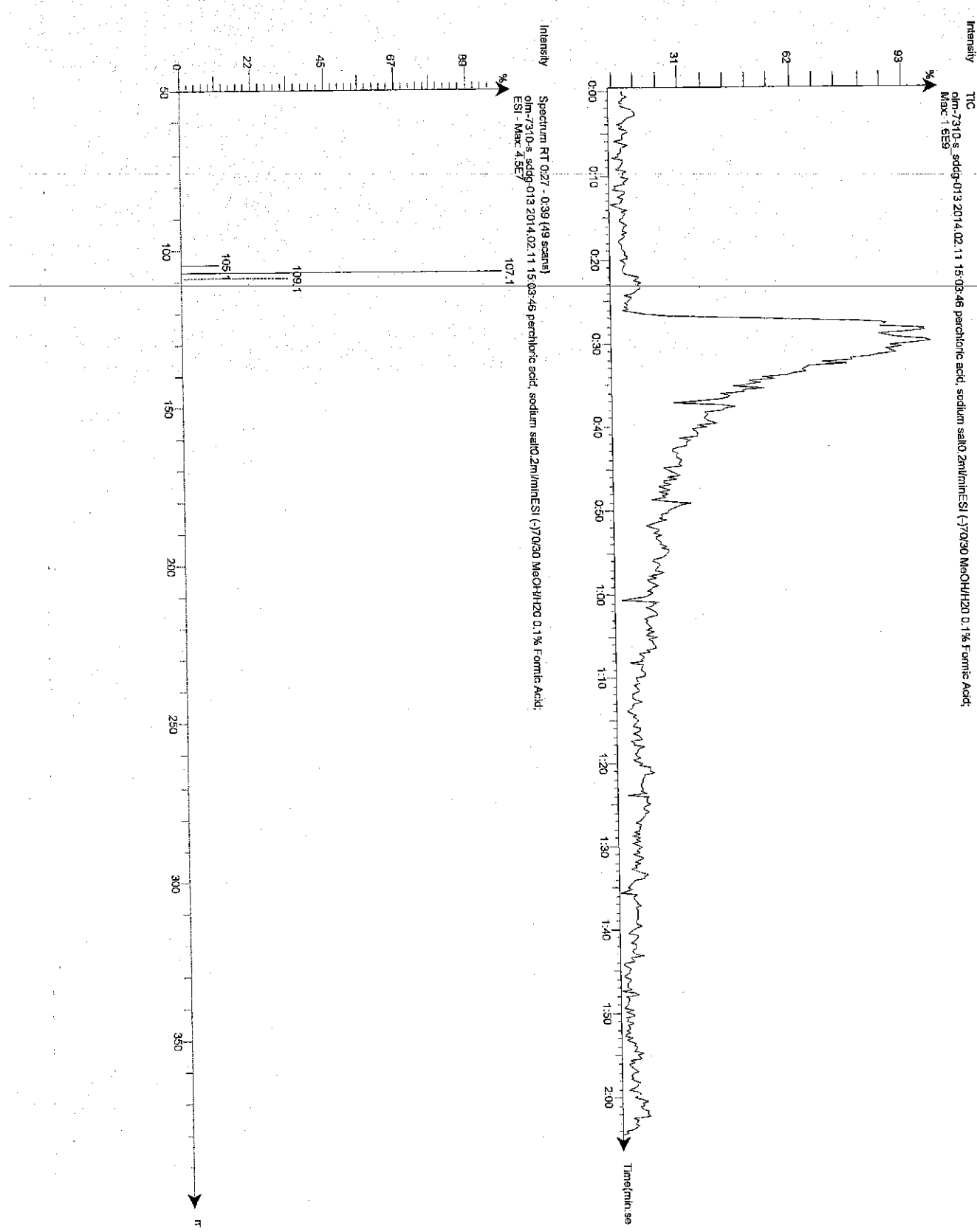
This COA references the bulk catalog number before packaging. The COA also applies to the CIL finished good catalog number . Some possible packaging sizes and their corresponding suffix are -1.2, -1, -0.5, -10, or -0.1.

* *For isotopically labeled compounds, MW listed is for the fully enriched product.*

Approved by: T. J. Eckersley
Timothy J. Eckersley, Ph.D., Quality Assurance

Quality Control Tests and Results

QC Release Date	2/27/2014
Expiration Date	2/27/2024
Concentration Based on Gravimetry	102 µg/mL
Chemical Purity of Neat Material(s)	98%
LC/MS for Concentration	109.4 ± 2.8 µg/mL (k=2)


Intensity
TIC
olm-7310-s_sdcg-013 2014.02.11 15:03:46 perchloric acid, sodium salt0.2ml/minESI (-)70/30 MeOH/H20 0.1% Formic Acid;
Max: 1.6E9
%
93
62
31
0:00
0:10
0:20
0:30
0:40
0:50
1:00
1:10
1:20
1:30
1:40
1:50
2:00
Time(min:se
Intensity
Spectrum RT 0:27 - 0:39 (49 scans)
olm-7310-s_sdcg-013 2014.02.11 15:03:46 perchloric acid, sodium salt0.2ml/minESI (-)70/30 MeOH/H20 0.1% Formic Acid;
ESI - Max: 4.5E7
%
89
67
45
22
0
107.1
109.1
105.1
50
100
150
200
250
300
350
m

PERCHLORIC ACID, SODIUM SALT (18O4, 90%+) 100 UG/ML IN WATER

Safety Data Sheet

according to Regulation (EC) No. 453/2010 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 21/02/2014 Revision date: 20/09/2013 : Version: 1.0

OLM-7310-S

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixtures

Product name : PERCHLORIC ACID, SODIUM SALT (18O4, 90%+) 100 UG/ML IN WATER

Product code : OLM-7310-S

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Main use category : Professional use

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Cambridge Isotope Laboratories, Inc.
50 Frontage Road
Andover, MA 01810
USA

USA: 1-800-322-1174 Int: 1-978-749-8000
cilsales@isotope.com www.isotope.com

Emergency telephone number

Emergency numbers:

Chemtrec: 1-800-424-9300 (24 hours)
International: 1-202-483-7616 (24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Ox. Liq. 1 H271

Full text of H-phrases: see section 16

Classification according to Directive 67/548/EEC or 1999/45/EC

O; R8
O; R9

Full text of R-phrases: see section 16

Classification (GHS-US)

Ox. Liq. 1 H271

Adverse physicochemical, human health and environmental effects

No additional information available

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
WATER UNLABELED	(CAS No)7732-18-5 (EC no)231-791-2	99.99	Not classified
PERCHLORIC ACID, SODIUM SALT (18O4, 90%+)	(CAS No)7601-89-0 (Unlabeled) (EC no)231-511-9 (EC index no)017-010-00-6	0.01	Ox. Sol. 1, H271 Acute Tox. 4 (Oral), H302

Full text of R-, H- and EUH-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Move out of dangerous area. Consult a physician and show this safety data sheet.

First-aid measures after inhalation : If breathed in, move person to fresh air. If not breathing, give artificial respiration. Consult a physician.

First-aid measures after skin contact : IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.

First-aid measures after eye contact : Flush eyes with water as a precaution.

First-aid measures after ingestion : Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation : May be harmful if inhaled. May cause respiratory tract irritation.

Symptoms/injuries after skin contact : May be harmful if absorbed through skin. May cause skin irritation.

Symptoms/injuries after eye contact : Causes eye irritation.

Symptoms/injuries after ingestion : May be harmful if swallowed.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2. Special hazards arising from the substance or mixture

Fire hazard : May cause fire or explosion; strong oxidiser.

Explosion hazard : Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.

Reactivity : Not available.

5.3. Advice for firefighters

Firefighting instructions : In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : No naked lights. No smoking.

6.1.1. For non-emergency personnel

Emergency procedures : Avoid breathing vapors, mist, or gas.

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

No special environmental precautions required.

6.3. Methods and material for containment and cleaning up

For containment : Keep in suitable, closed containers for disposal.

6.4. Reference to other sections

No additional information available

Oxidizing properties	: May cause fire or explosion; strong oxidiser.
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Not available.

10.2 Chemical stability

See storage and expiration date.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Direct sunlight. Heat. Sparks. Overheating. Open flame.

10.5. Incompatible materials

No data available

10.6. Hazardous decomposition products

No data available.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

WATER UNLABELED (7732-18-5)	
LD50 oral rat	> 90000 mg/kg

PERCHLORIC ACID, SODIUM SALT (18O4, 90%+) (7601-89-0 (Unlabeled))	
ATE (oral)	500.000 mg/kg body weight

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: Not available No data available
Germ cell mutagenicity	: Not available
Carcinogenicity	: Not classified
Reproductive toxicity	: Not available
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: The chemical, physical, and toxicological properties have not been thoroughly investigated.
Symptoms/injuries after inhalation	: May be harmful if inhaled. May cause respiratory tract irritation.
Symptoms/injuries after skin contact	: May be harmful if absorbed through skin. May cause skin irritation.
Symptoms/injuries after eye contact	: Causes eye irritation.
Symptoms/injuries after ingestion	: May be harmful if swallowed.

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

PERCHLORIC ACID, SODIUM SALT (18O4, 90%+) 100 UG/ML IN WATER	
Persistence and degradability	Not available.

WATER UNLABELED (7732-18-5)	
Persistence and degradability	Not available.

14.6. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

No additional information available

15.2. International regulations

CANADA

PERCHLORIC ACID, SODIUM SALT (18O4, 90%+) 100 UG/ML IN WATER
Listed on the Canadian DSL (Domestic Substances List) inventory.

15.2.1. National regulations

No additional information available

15.3. US State regulations

PERCHLORIC ACID, SODIUM SALT (18O4, 90%+) 100 UG/ML IN WATER()	
State or local regulations	U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16: Other information

Other information : This product is not radioactive. The data given for this product are those of the corresponding unlabeled compound, unless specifically indicated otherwise. Health and safety data for labeled compounds are generally not available, but are assumed to be similar or identical to the corresponding unlabeled compound.

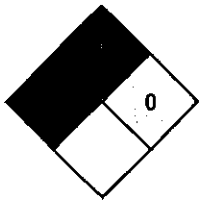
Full text of R-, H- and EUH-phrases::

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Ox. Liq. 1	Oxidizing liquids Category 1
Ox. Sol. 1	Oxidizing solids Category 1
H271	May cause fire or explosion; strong oxidiser
H302	Harmful if swallowed
R22	Harmful if swallowed
R8	Contact with combustible material may cause fire
R9	Explosive when mixed with combustible material
O	Oxidizing
Xn	Harmful

NFPA health hazard : 0 - Exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials.

NFPA fire hazard : 0 - Materials that will not burn.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



HMIS III Rating

Health : 0 Minimal Hazard - No significant risk to health

Flammability : 0 Minimal Hazard

Physical : 0 Minimal Hazard

Reagent

LC6850TA_00005

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Analytical Reference Material ARM

ISO 9001 QS Registered
ISO 17025-34-35-43 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57001
Lot Number: 121213
Description: Perchlorate (ClO_4^-)

Expiration Date: 121216
Storage: 4 °C
Nominal Concentration (µg/mL): 1000

Weight shown below was diluted to (mL): 499.66

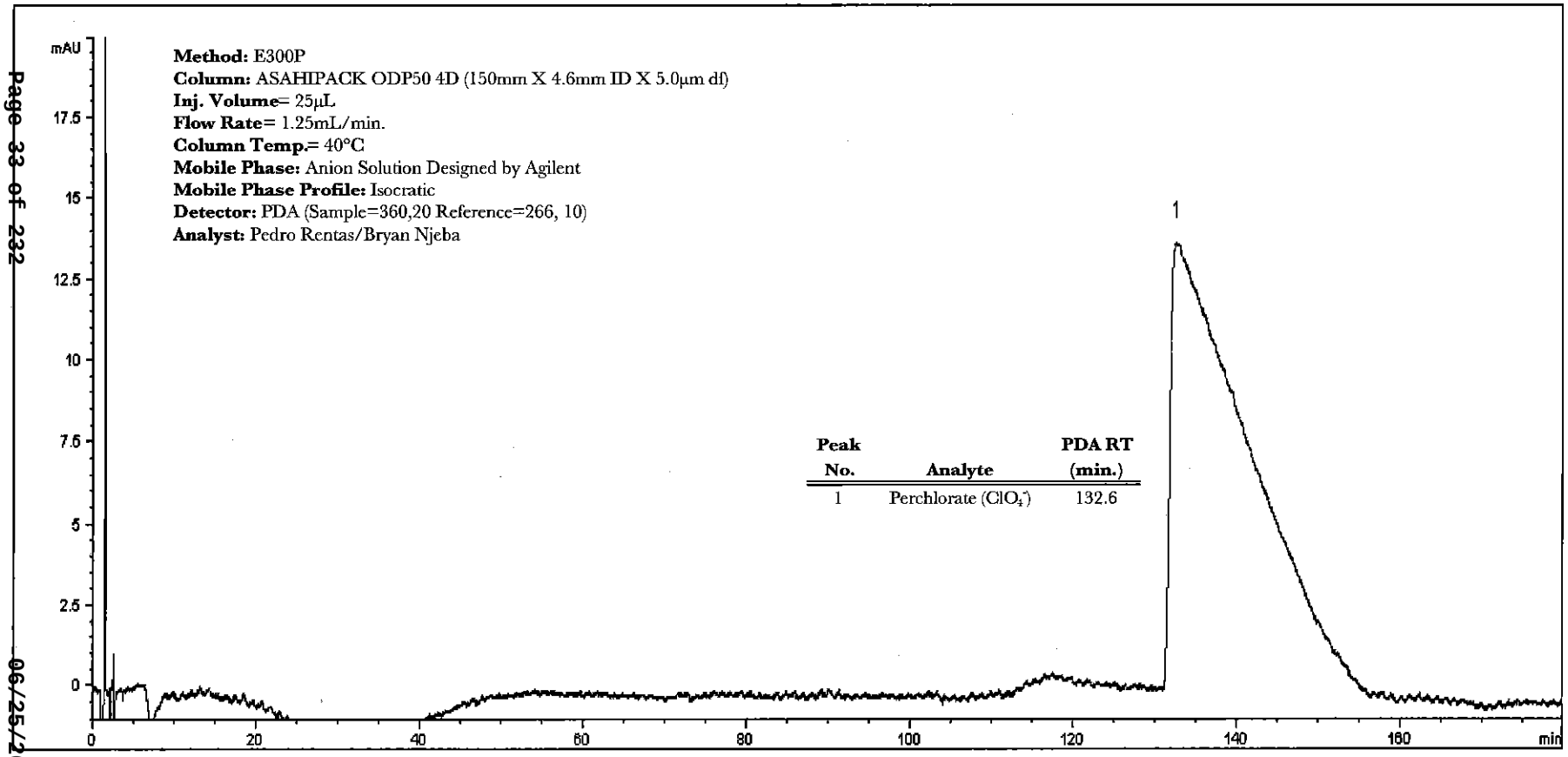
Solvent: Lot # 121213 ASTM Type 1 Water

5E-05 Balance Uncertainty
0.035 Flask Uncertainty

Formulated By:	Lawrence Barry	121213
Reviewed By:	Pedro L. Rentas	121213

MSDS Information
(Solvent Safety Info. On Attached pg.)

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity	Uncertainty Purity	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty (+/-)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Sodium Perchlorate (ClO4)	IN119	MKBN1540V	1000.0	98.0	0.10	81.2	0.62772	0.62773	**1000.0**	0.00205	07601-89-0	N/A	N/A	3152a



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06/25/2014

Reagent

LC6850TA_00006

125 Market Street
New Haven, CT 06513
USA

AccuStandard® Inc.

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

AccuIon™ Reference Standard

Item Number: IC-PER-10X-1

Element: Perchlorate
Storage Condition: Ambient
Hazards: IRRITANT
Matrix: Water

Lot: 213025072
Date Certified: 2/22/2013
Expiration: Feb / 2015
Sample Size: 100 mL

[X] Included on ISO/IEC 17025 Scope of Accreditation
[X] Included on ISO Guide 34 Scope of Accreditation

Concentration confirmed by phone call - Nathan to Accustandard on 1-6-2014. Salt correction performed, concentration is perchlorate ion. DEL 1-6-14

Actual Lot Analysis

Perchlorate 1000 µg/mL

The gravimetric uncertainty for this product is ±0.24%. The CRM uncertainty is ±5%. See reverse side for details.

In order to verify the concentrations, the final solution was checked against material traceable to the following NIST SRMs: Ind. Std.

RESULTS: This solution standard was certified for accuracy of the listed components via methodology traceable to primary or well characterized secondary standards.

This standard was prepared gravimetrically to contain the concentrations shown above. Balances, used in the preparation, are calibrated regularly using NIST-traceable weights. All glassware used in preparation is Class A.

We use the highest purity raw materials available, ASTM type I 18 megohm deionized water, and typically 99.999%+ starting materials to minimize impurity levels in the final solution. All solutions are filtered through a 0.2 µm filter prior to being bottled. All bottles are triple rinsed with deionized water prior to use.

Use good laboratory procedure when diluting this product. Shake bottle prior to use and do not pipette directly out of the bottle. Use only cleaned Class A volumetric glassware.

We certify the accuracy of this standard to be ± 0.5% of the stated value until the expiration date listed above, provided it is kept tightly capped and stored under normal laboratory conditions.

L. Snyder
Lydia Snyder
Inorganic QC Supervisor

For use in routine laboratory analysis.

AccuStandard is accredited to ISO Guide 34, ISO/IEC 17025 and certified to ISO 9001

OR-ORG/INO-001
Rev. 7/11

CERTIFICATION REPORT

1. **Quality Documentation:** This certificate is designed in accordance with ISO Guide 31 (Reference Materials - Contents of Certificates and Labels) and ISO Guide 35 (Reference Materials – General and Statistical Principles for Certification).

2. **Quality Standards:**

   ISO Guide 34 - General Requirements for the Competence of Reference Material Producers ACLASS Certificate Number AR-1463

   AR-1463

   ISO/IEC 17025:2005 - General Requirements for the Competence of Testing and Calibration Laboratories ACLASS Certificate Number AT-1339

   AT-1339

   ISO 9001:2008 Quality Management System - Requirements Eagle Registrations Certificate Number 3774

3. **Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 11. If dilution is required, use only Class A glassware and diluent compatible with all certified analytes in this preparation. All solutions should be thoroughly mixed prior to use.

4. **Raw Materials:** Reference standards are prepared from the highest quality starting materials with defined purities. All analytes and solvents are obtained from pre-qualified vendors and then analyzed or evaluated prior to use.

5. **Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards and calibrated using an in-house procedure. Good Laboratory Practices have been used throughout the preparation of this CRM.

6. **Homogeneity Assessment:** Homogeneity of the finished product is assessed by analyzing sample batches or by other methods consistent with the intended use of the product and by procedures that comply with the appropriate Quality System requirements, and ISO Guide 35.

7. **Stability Assessment:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label. To ensure a uniform solution, mix the contents of the sealed container thoroughly prior to use. Care should be taken not to contaminate the contents of the original container.

8. **Analytical Quality Control:** Products are tested by validated analytical methods specified in the manufacturer's quality system.

9. **Uncertainty Statistics and Confidence Limits:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide (Quantifying Uncertainty in Analytical Measurement). We have evaluated both Type A (based on a series of observations) and Type B (manufacturers specifications and calibration data) factors and report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_m = \sqrt{(u(P))^2 + (u(m))^2 + (u(V))^2}$. The expanded uncertainty, U, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level. Laboratories accredited to ISO/IEC 17025 and ISO Guide 34 are required to estimate uncertainty budgets associated with the measurements they make. However, for analysis, the certified value should be used as the actual value.

10. **Warranties:** The manufacturer warrants that its products shall conform to the description of such products as provided in its catalog or on the specific product label. This warranty is exclusive, and the manufacturer makes no other warranty, express or implied, including any implied warranty of merchantability or fitness for any particular purpose.

11. **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. Due to the hazardous nature, only trained personnel should handle this product. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

6850

Perchlorate by LC/MS or LC/MS/MS

FORM III
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2

SDG No.:

Matrix: Solid Level: Low Lab File ID: 21JUN2014b_047.d

Lab ID: LCS 320-41554/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Perchlorate	50.0	51.0	102	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2

SDG No.:

Matrix: Solid Level: Low Lab File ID: 22JUN2014a_051.d

Lab ID: LCS 320-41554/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Perchlorate	50.0	45.4	91	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2

SDG No.:

Matrix: Solid Level: Low Lab File ID: 22JUN2014a_054.d

Lab ID: 320-7224-17 MS Client ID: MAK130L MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Perchlorate	98.7	0.56 J	95.9	97	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2

SDG No.:

Matrix: Solid Level: Low Lab File ID: 22JUN2014a_055.d

Lab ID: 320-7224-17 MSD Client ID: MAK130L MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Perchlorate	95.5	93.2	97	3	15	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS LC INTERFERENCE CHECK STANDARD RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2

SDG No.:

Matrix: Solid Level: Low Lab File ID: 21JUN2014b_048.d

Lab ID: INF 320-41554/3-A Client ID:

COMPOUND	SPIKE ADDED (ng/mL)	INF CONCENTRATION (ng/mL)	INF % REC	QC LIMITS REC	#
Perchlorate	50.0	51.5	103	70-130	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS LC INTERFERENCE CHECK STANDARD RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2

SDG No.:

Matrix: Solid Level: Low Lab File ID: 22JUN2014a_052.d

Lab ID: INF 320-41554/3-A Client ID:

COMPOUND	SPIKE ADDED (ng/mL)	INF CONCENTRATION (ng/mL)	INF % REC	QC LIMITS REC	#
Perchlorate	50.0	47.7	95	70-130	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM IV
LCMS METHOD BLANK SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2

SDG No.:

Lab File ID: 21JUN2014b_046.d Lab Sample ID: MB 320-41554/1-A

Matrix: Solid Date Extracted: 05/01/2014 10:11

Instrument ID: A6 Date Analyzed: 06/21/2014 22:39

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 320-41554/2-A	21JUN2014b_047.d	06/21/2014 22:51

FORM IV
LCMS METHOD BLANK SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2

SDG No.:

Lab File ID: 22JUN2014a_050.d Lab Sample ID: MB 320-41554/1-A

Matrix: Solid Date Extracted: 05/01/2014 10:11

Instrument ID: A6 Date Analyzed: 06/22/2014 19:39

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 320-41554/2-A	22JUN2014a_051.d	06/22/2014 19:51
MAK130L	320-7224-17	22JUN2014a_053.d	06/22/2014 20:15
MAK130L MS	320-7224-17 MS	22JUN2014a_054.d	06/22/2014 20:27
MAK130L MSD	320-7224-17 MSD	22JUN2014a_055.d	06/22/2014 20:39
MAK132L	320-7224-18	22JUN2014a_056.d	06/22/2014 20:51
MAK134L	320-7224-19	22JUN2014a_057.d	06/22/2014 21:03
MAK135L	320-7224-20	22JUN2014a_058.d	06/22/2014 21:15
MAK138L	320-7224-21	22JUN2014a_065.d	06/22/2014 22:34

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2

SDG No.:

Instrument ID: A6 Calibration Start Date: 06/21/2014 14:27

GC Column: Xterra C18 ID: 3.2(mm) Calibration End Date: 06/21/2014 15:39

Calibration ID: 7919

		18OP					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		4559117	6.39				
UPPER LIMIT		6838676	7.39				
LOWER LIMIT		2279559	5.39				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCB 320-45352/10		4872808	6.39				
ICV 320-45352/11		4640006	6.39				
CCVL 320-45352/13		4929754	6.39				
CCV 320-45352/41		4380883	6.39				
MB 320-41554/1-A		3986056	6.41				
LCS 320-41554/2-A		3994746	6.41				
INF 320-41554/3-A		3870529	6.41				
320-7224-17	MAK130L	376698	6.41				
320-7224-17 MS	MAK130L MS	349058	6.39				
320-7224-17 MSD	MAK130L MSD	337860	6.39				
320-7224-18	MAK132L	352273	6.41				
320-7224-19	MAK134L	365958	6.39				
320-7224-20	MAK135L	329951	6.41				
CCV 320-45352/55		4293688	6.41				
320-7224-21	MAK138L	428171	6.41				
CCV 320-45352/68		4956006	6.39				
CCVL 320-45352/69		4686516	6.41				
CCB 320-45352/70		4901108	6.39				

18OP = 18-O Perchlorate

Area Limit = 50%-150% of internal standard area
RT Limit = ± 1 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 6850

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2

SDG No.:

Instrument ID: A6 Calibration Start Date: 06/22/2014 10:49

GC Column: Xterra C18 ID: 3.2(mm) Calibration End Date: 06/22/2014 12:01

Calibration ID: 7923

		18OP					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		4509308	6.39				
UPPER LIMIT		6763962	7.39				
LOWER LIMIT		2254654	5.39				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCB 320-45355/10		4682644	6.39				
ICV 320-45355/11		4655944	6.39				
CCVL 320-45355/13		4892225	6.39				
CCV 320-45355/41		4314702	6.39				
MB 320-41554/1-A		3499703	6.39				
LCS 320-41554/2-A		3499782	6.39				
INF 320-41554/3-A		3562271	6.39				
320-7224-17	MAK130L	2525732	6.42				
320-7224-17 MS	MAK130L MS	1710685	6.41				
320-7224-17 MSD	MAK130L MSD	1716346	6.41				
320-7224-18	MAK132L	1855798	6.41				
320-7224-19	MAK134L	1675361	6.41				
320-7224-20	MAK135L	1624067	6.41				
CCV 320-45355/55		2923801	6.39				
320-7224-21	MAK138L	3297883	6.41				
CCV 320-45355/68		3860332	6.39				
CCVL 320-45355/69		4285930	6.41				
CCB 320-45355/70		4164293	6.41				

18OP = 18-O Perchlorate

Area Limit = 50%-150% of internal standard area
RT Limit = ± 1 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 6850

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-7224-2
SDG No.:
Client Sample ID: MAK130L
Lab Sample ID: 320-7224-17
Matrix: Solid
Lab File ID: 22JUN2014a_053.d
Analysis Method: 6850
Date Collected: 03/27/2014 08:20
Extraction Method: SHAKE
Date Extracted: 05/01/2014 10:11
Sample wt/vol: 1.50(g)
Date Analyzed: 06/22/2014 20:15
Con. Extract Vol.: 10.00(mL)
Dilution Factor: 1
Injection Volume: 150(uL)
GC Column: Xterra C18 ID: 3.2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 45355
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.56	J	10	0.30

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_053.d
Lims ID: 320-7224-A-17-A Lab Sample ID: 320-7224-17
Client ID: MAK130L
Sample Type: Client
Inject. Date: 22-Jun-2014 20:15:59 ALS Bottle#: 25 Worklist Smp#: 47
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: 320-7224-A-17-A
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6

Method: \\Sacchrom\ChromData\A6\20140622-13401.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 24-Jun-2014 15:55:46 Calib Date: 22-Jun-2014 12:01:35
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK007

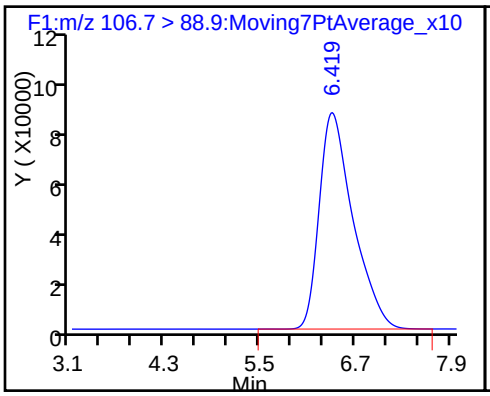
Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.419	6.391	0.028		2525732	10.1		3519	
108.7 > 90.9	6.405	6.391	0.014		784743		3.22(2.30-3.80)	1246	
2 Perchlorate									
98.7 > 82.8	6.419	6.405	0.014	1.000	23218	0.0845		35.1	
100.7 > 84.9	6.391	6.405	-0.014	0.996	7911		2.93(2.30-3.80)	10.4	

Report Date: 24-Jun-2014 15:55:49 Chrom Revision: 2.2 16-May-2014 10:46:48

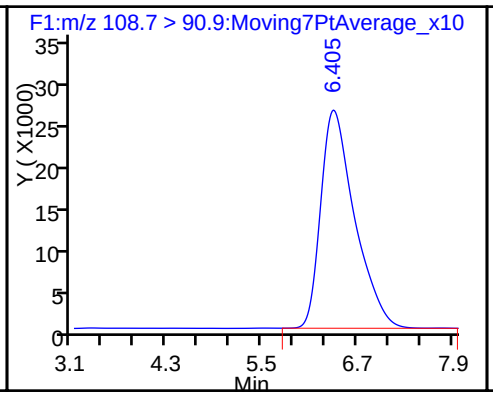
TestAmerica Sacramento

Data File:	\\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_053.d				
Injection Date:	22-Jun-2014 20:15:59	Instrument ID:	A6		
Lims ID:	320-7224-A-17-A	Lab Sample ID:	320-7224-17		
Client ID:	MAK130L				
Operator ID:	jss	ALS Bottle#:	25	Worklist Smp#:	47
Injection Vol:	150.0 ul	Dil. Factor:	1.0000		
Method:	6850_A6	Limit Group:	LC 6850 ICAL		

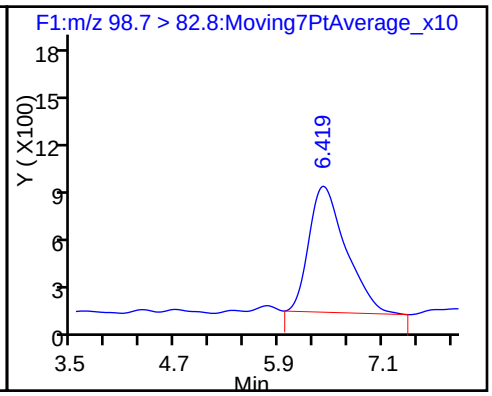
* 1 18-O Perchlorate



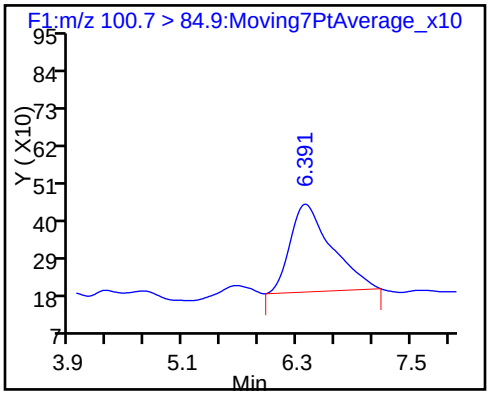
* 1 18-O Perchlorate



2 Perchlorate



2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-7224-2
SDG No.:
Client Sample ID: MAK132L
Lab Sample ID: 320-7224-18
Matrix: Solid
Lab File ID: 22JUN2014a_056.d
Analysis Method: 6850
Date Collected: 03/28/2014 08:38
Extraction Method: SHAKE
Date Extracted: 05/01/2014 10:11
Sample wt/vol: 1.49(g)
Date Analyzed: 06/22/2014 20:51
Con. Extract Vol.: 10.00(mL)
Dilution Factor: 1
Injection Volume: 150(uL)
GC Column: Xterra C18 ID: 3.2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 45355
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.32	J I	10	0.30

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_056.d
Lims ID: 320-7224-A-18-A Lab Sample ID: 320-7224-18
Client ID: MAK132L
Sample Type: Client
Inject. Date: 22-Jun-2014 20:51:50 ALS Bottle#: 28 Worklist Smp#: 50
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: 320-7224-A-18-A
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6

Method: \\Sacchrom\ChromData\A6\20140622-13401.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 24-Jun-2014 15:55:46 Calib Date: 22-Jun-2014 12:01:35
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK007

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									s
106.7 > 88.9	6.405	6.391	0.014		1855798	10.1		6123	
108.7 > 90.9	6.405	6.391	0.014		571025		3.25(2.30-3.80)	1931	
2 Perchlorate									R
98.7 > 82.8	6.419	6.405	0.014	1.002	9753	0.0483		41.2	R
100.7 > 84.9	6.377	6.405	-0.028	0.996	1283		7.60(2.30-3.80)	8.0	

QC Flag Legend

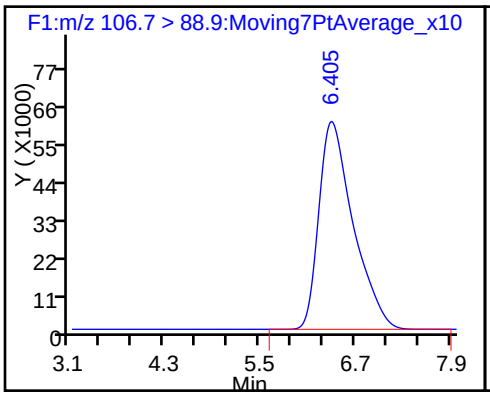
Processing Flags
R - Failed Signal Ratio Test
s - Failed ISTD Recovery Test

Report Date: 24-Jun-2014 15:55:50 Chrom Revision: 2.2 16-May-2014 10:46:48

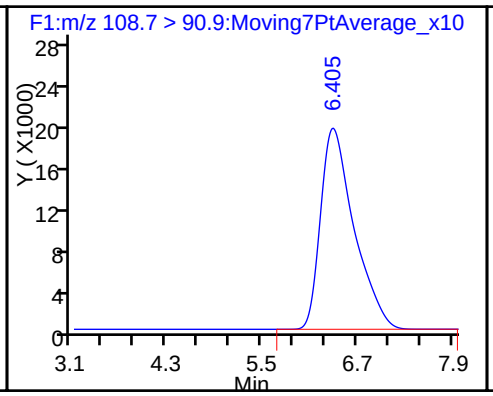
TestAmerica Sacramento

Data File:	\\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_056.d				
Injection Date:	22-Jun-2014 20:51:50	Instrument ID:	A6		
Lims ID:	320-7224-A-18-A	Lab Sample ID:	320-7224-18		
Client ID:	MAK132L				
Operator ID:	jss	ALS Bottle#:	28	Worklist Smp#:	50
Injection Vol:	150.0 ul	Dil. Factor:	1.0000		
Method:	6850_A6	Limit Group:	LC 6850 ICAL		

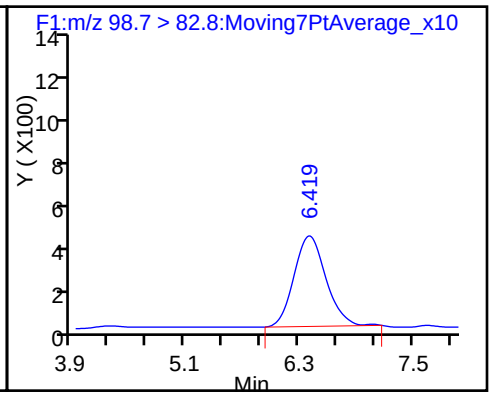
* 1 18-O Perchlorate



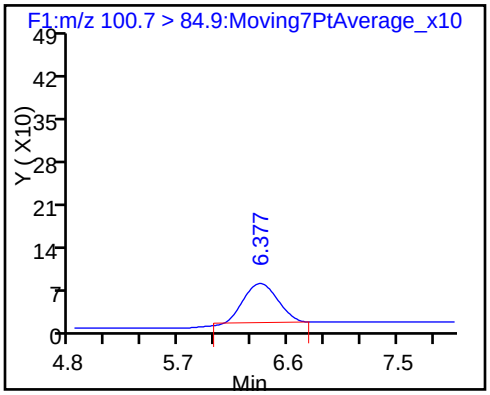
* 1 18-O Perchlorate



2 Perchlorate



2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-7224-2
SDG No.:
Client Sample ID: MAK134L
Lab Sample ID: 320-7224-19
Matrix: Solid
Lab File ID: 22JUN2014a_057.d
Analysis Method: 6850
Date Collected: 03/28/2014 09:20
Extraction Method: SHAKE
Date Extracted: 05/01/2014 10:11
Sample wt/vol: 1.50(g)
Date Analyzed: 06/22/2014 21:03
Con. Extract Vol.: 10.00(mL)
Dilution Factor: 1
Injection Volume: 150(uL)
GC Column: Xterra C18 ID: 3.2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 45355
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.34	J I	10	0.30

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_057.d
Lims ID: 320-7224-A-19-A Lab Sample ID: 320-7224-19
Client ID: MAK134L
Sample Type: Client
Inject. Date: 22-Jun-2014 21:03:46 ALS Bottle#: 29 Worklist Smp#: 51
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: 320-7224-A-19-A
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6

Method: \\Sacchrom\ChromData\A6\20140622-13401.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 24-Jun-2014 15:55:46 Calib Date: 22-Jun-2014 12:01:35
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK007

First Level Reviewer: strumj Date: 23-Jun-2014 07:47:19

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									s
106.7 > 88.9	6.405	6.391	0.014		1675361	10.1		2821	
108.7 > 90.9	6.391	6.391	0.0		526972		3.18(2.30-3.80)	1053	
2 Perchlorate									RM
98.7 > 82.8	6.489	6.405	0.084	1.013	9169	0.0503		11.7	R
100.7 > 84.9	6.391	6.405	-0.014	0.998	4303		2.13(2.30-3.80)	6.7	M

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test
s - Failed ISTD Recovery Test

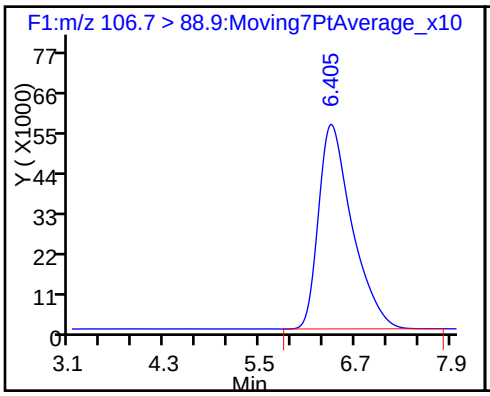
Review Flags
M - Manually Integrated

Report Date: 24-Jun-2014 15:55:50 Chrom Revision: 2.2 16-May-2014 10:46:48

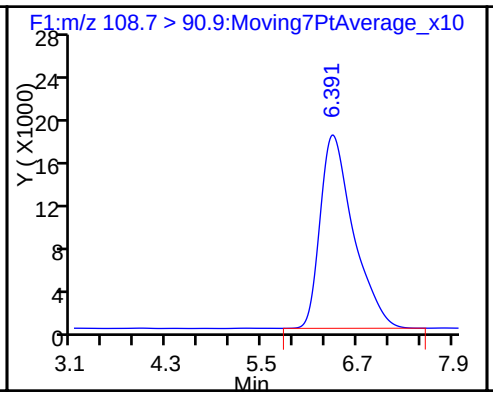
TestAmerica Sacramento

Data File:	\\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_057.d				
Injection Date:	22-Jun-2014 21:03:46	Instrument ID:	A6		
Lims ID:	320-7224-A-19-A	Lab Sample ID:	320-7224-19		
Client ID:	MAK134L				
Operator ID:	jss	ALS Bottle#:	29	Worklist Smp#:	51
Injection Vol:	150.0 ul	Dil. Factor:	1.0000		
Method:	6850_A6	Limit Group:	LC 6850 ICAL		

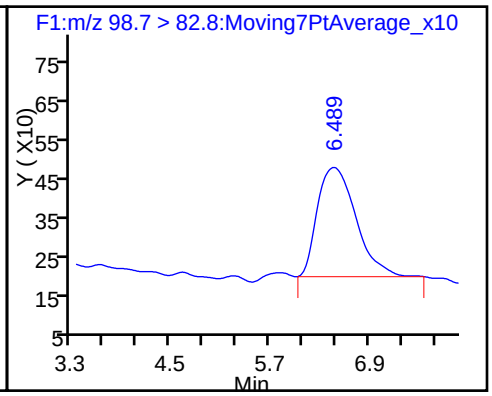
* 1 18-O Perchlorate



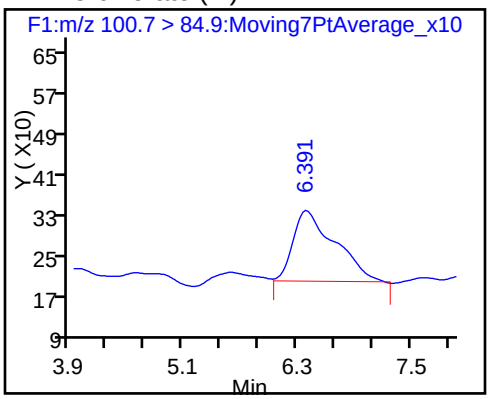
* 1 18-O Perchlorate



2 Perchlorate



2 Perchlorate (M)



Manual Integration/User Assign Peak Report

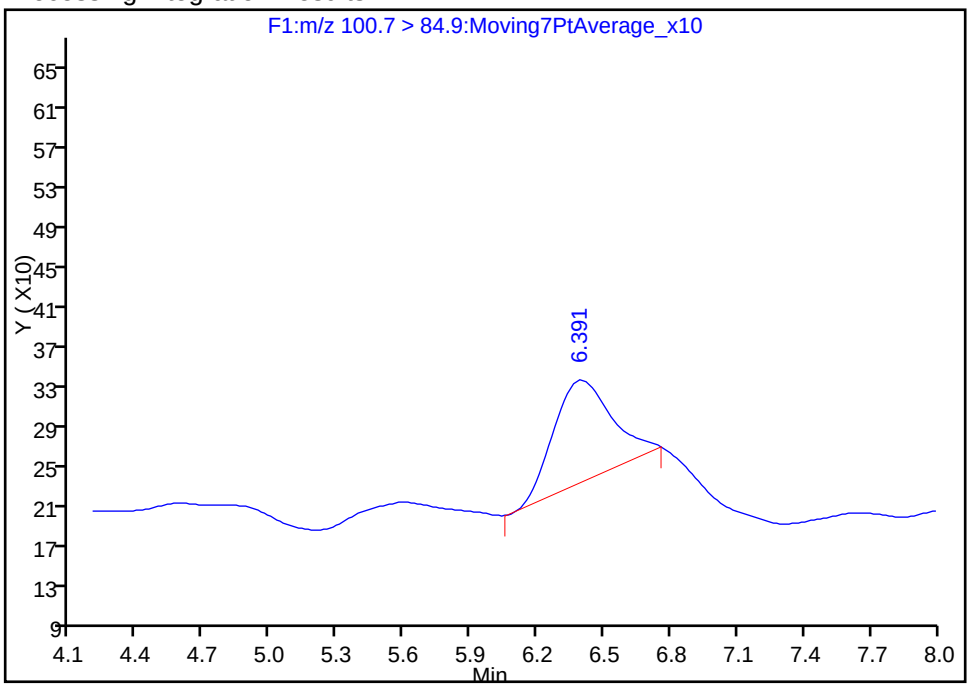
TestAmerica Sacramento

Data File:	\\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_057.d				
Injection Date:	22-Jun-2014 21:03:46	Instrument ID:	A6		
Lims ID:	320-7224-A-19-A	Lab Sample ID:	320-7224-19		
Client ID:	MAK134L				
Operator ID:	jss	ALS Bottle#:	29	Worklist Smp#:	51
Injection Vol:	150.0 ul	Dil. Factor:	1.0000		
Method:	6850_A6	Limit Group:	LC 6850 ICAL		
Column:		Detector	F1:MRM		

2 Perchlorate, CAS: 14797-73-0

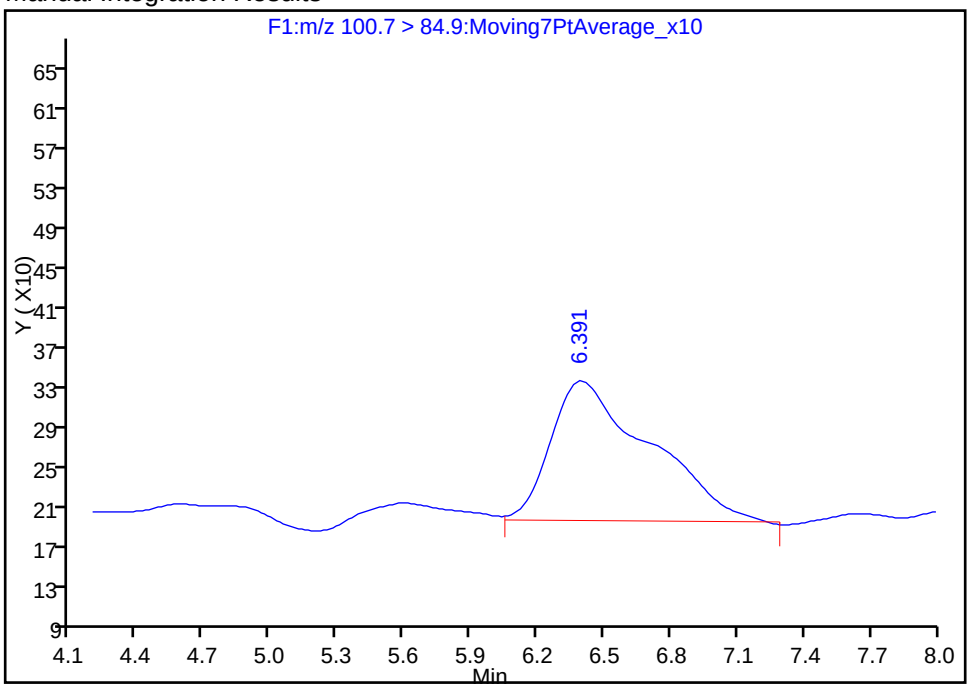
Processing Integration Results

RT: 6.39
Response: 1855
Amount: 0.050310



Manual Integration Results

RT: 6.39
Response: 4303
Amount: 0.050310



Reviewer: strumj, 23-Jun-2014 07:47:19
Audit Action: Manually Integrated
Audit Reason: Shouldering

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-7224-2
SDG No.:
Client Sample ID: MAK135L
Lab Sample ID: 320-7224-20
Matrix: Solid
Lab File ID: 22JUN2014a_058.d
Analysis Method: 6850
Date Collected: 03/28/2014 10:00
Extraction Method: SHAKE
Date Extracted: 05/01/2014 10:11
Sample wt/vol: 1.55(g)
Date Analyzed: 06/22/2014 21:15
Con. Extract Vol.: 10.00(mL)
Dilution Factor: 1
Injection Volume: 150(uL)
GC Column: Xterra C18 ID: 3.2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 45355
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.74	J	9.7	0.29

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_058.d
Lims ID: 320-7224-A-20-A Lab Sample ID: 320-7224-20
Client ID: MAK135L
Sample Type: Client
Inject. Date: 22-Jun-2014 21:15:42 ALS Bottle#: 30 Worklist Smp#: 52
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: 320-7224-A-20-A
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6

Method: \\Sacchrom\ChromData\A6\20140622-13401.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 24-Jun-2014 15:55:46 Calib Date: 22-Jun-2014 12:01:35
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK007

First Level Reviewer: strumj Date: 23-Jun-2014 07:47:52

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									s
106.7 > 88.9	6.405	6.391	0.014		1624067	10.1		2513	
108.7 > 90.9	6.405	6.391	0.014		488566		3.32(2.30-3.80)	747	
2 Perchlorate									M
98.7 > 82.8	6.419	6.405	0.014	1.002	20282	0.1148		29.4	M
100.7 > 84.9	6.405	6.405	0.0	1.000	7925		2.56(2.30-3.80)	13.8	

QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

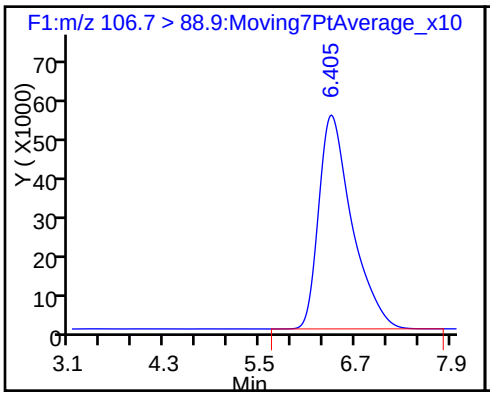
Review Flags
M - Manually Integrated

Report Date: 24-Jun-2014 15:55:51 Chrom Revision: 2.2 16-May-2014 10:46:48

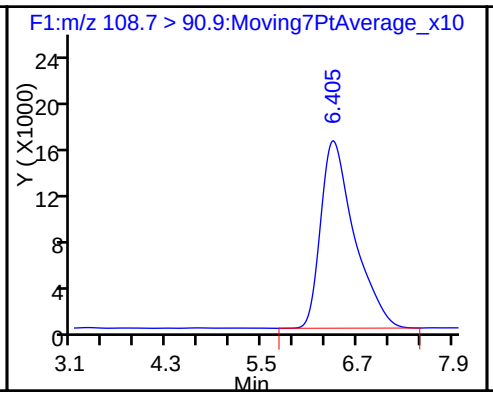
TestAmerica Sacramento

Data File:	\\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_058.d				
Injection Date:	22-Jun-2014 21:15:42	Instrument ID:	A6		
Lims ID:	320-7224-A-20-A	Lab Sample ID:	320-7224-20		
Client ID:	MAK135L				
Operator ID:	jss	ALS Bottle#:	30	Worklist Smp#:	52
Injection Vol:	150.0 ul	Dil. Factor:	1.0000		
Method:	6850_A6	Limit Group:	LC 6850 ICAL		

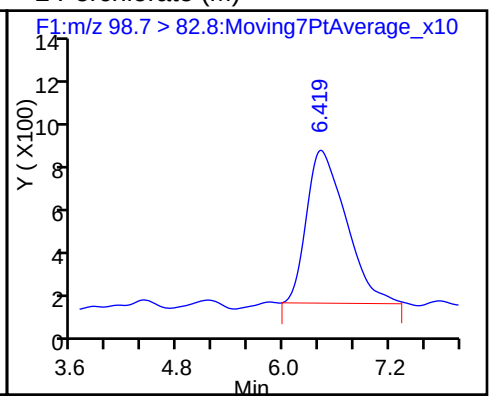
* 1 18-O Perchlorate



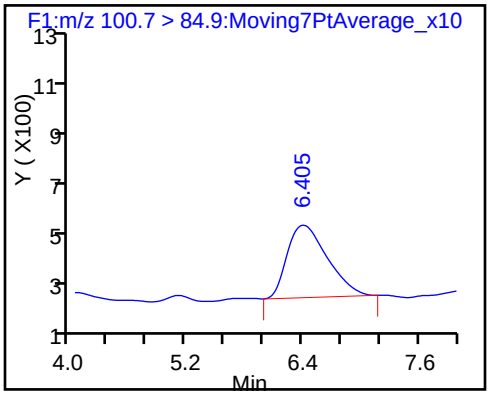
* 1 18-O Perchlorate



2 Perchlorate (M)



2 Perchlorate



Manual Integration/User Assign Peak Report

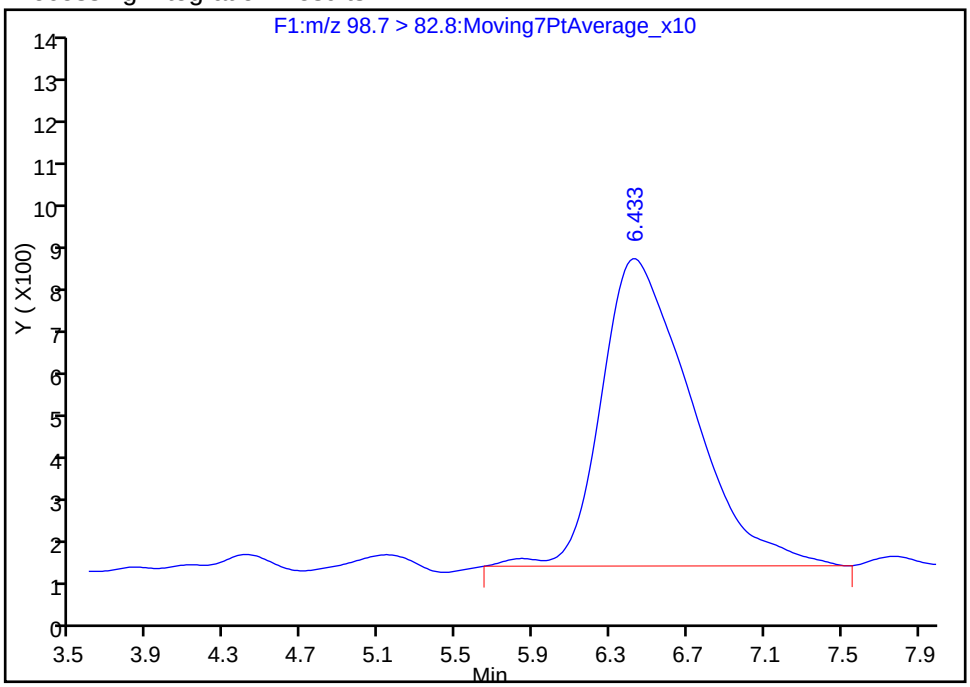
TestAmerica Sacramento

Data File:	\\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_058.d				
Injection Date:	22-Jun-2014 21:15:42	Instrument ID:	A6		
Lims ID:	320-7224-A-20-A	Lab Sample ID:	320-7224-20		
Client ID:	MAK135L				
Operator ID:	jss	ALS Bottle#:	30	Worklist Smp#:	52
Injection Vol:	150.0 ul	Dil. Factor:	1.0000		
Method:	6850_A6	Limit Group:	LC 6850 ICAL		
Column:		Detector	F1:MRM		

2 Perchlorate, CAS: 14797-73-0

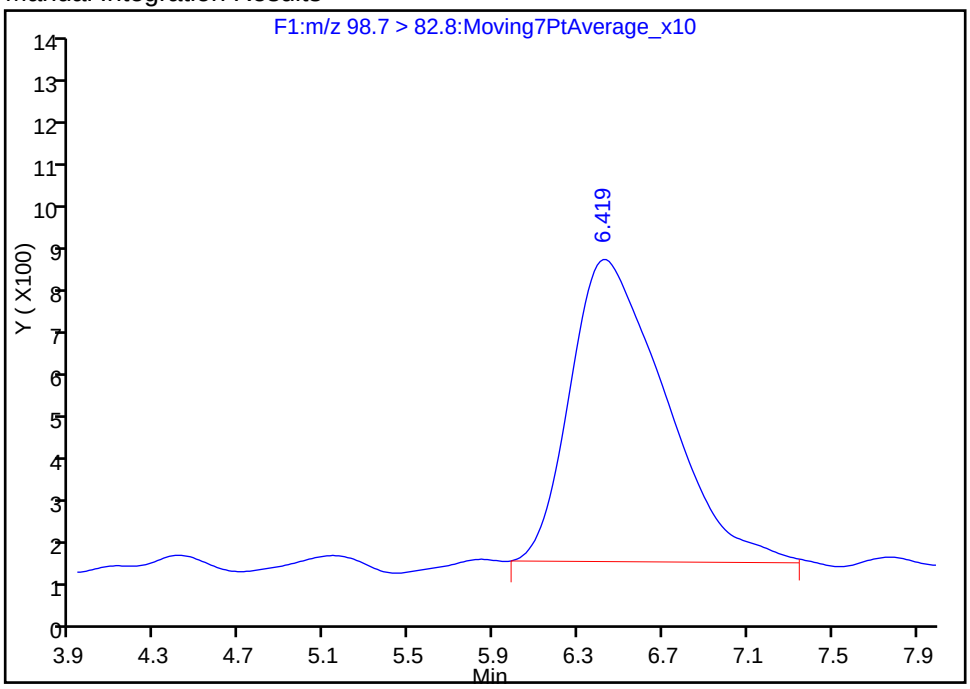
Processing Integration Results

RT: 6.43
Response: 21442
Amount: 0.121368



Manual Integration Results

RT: 6.42
Response: 20282
Amount: 0.114802



Reviewer: strumj, 23-Jun-2014 07:47:52
Audit Action: Manually Integrated
Audit Reason: Baseline

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-7224-2
SDG No.:
Client Sample ID: MAK138L
Lab Sample ID: 320-7224-21
Matrix: Solid
Lab File ID: 22JUN2014a_065.d
Analysis Method: 6850
Date Collected: 03/28/2014 11:32
Extraction Method: SHAKE
Date Extracted: 05/01/2014 10:11
Sample wt/vol: 1.57(g)
Date Analyzed: 06/22/2014 22:34
Con. Extract Vol.: 10.00(mL)
Dilution Factor: 1
Injection Volume: 150(uL)
GC Column: Xterra C18 ID: 3.2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 45355
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.32	J	9.6	0.29

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_065.d
Lims ID: 320-7224-A-21-A Lab Sample ID: 320-7224-21
Client ID: MAK138L
Sample Type: Client
Inject. Date: 22-Jun-2014 22:34:58 ALS Bottle#: 31 Worklist Smp#: 57
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: 320-7224-A-21-A
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6

Method: \\Sacchrom\ChromData\A6\20140622-13401.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 24-Jun-2014 15:55:52 Calib Date: 22-Jun-2014 12:01:35
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK007

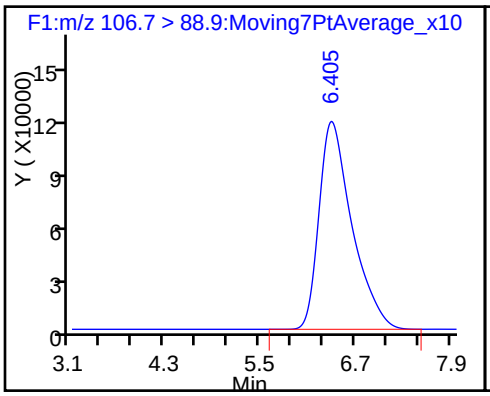
Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.405	6.391	0.014		3297883	10.1		2985	
108.7 > 90.9	6.405	6.391	0.014		1020503		3.23(2.30-3.80)	11860	
2 Perchlorate									
98.7 > 82.8	6.391	6.405	-0.014	0.998	18066	0.0504		70.1	
100.7 > 84.9	6.405	6.405	0.0	1.000	4969		3.64(2.30-3.80)	43.4	

Report Date: 24-Jun-2014 15:55:53 Chrom Revision: 2.2 16-May-2014 10:46:48

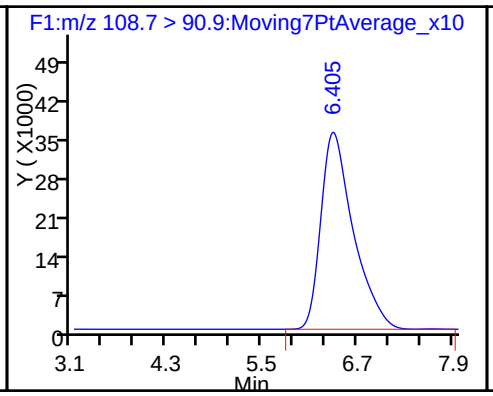
TestAmerica Sacramento

Data File:	\\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_065.d				
Injection Date:	22-Jun-2014 22:34:58	Instrument ID:	A6		
Lims ID:	320-7224-A-21-A	Lab Sample ID:	320-7224-21		
Client ID:	MAK138L				
Operator ID:	jss	ALS Bottle#:	31	Worklist Smp#:	57
Injection Vol:	150.0 ul	Dil. Factor:	1.0000		
Method:	6850_A6	Limit Group:	LC 6850 ICAL		

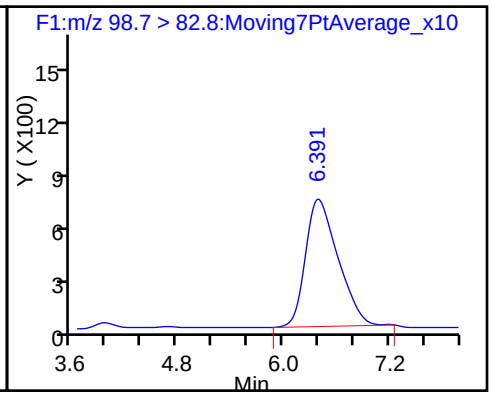
* 1 18-O Perchlorate



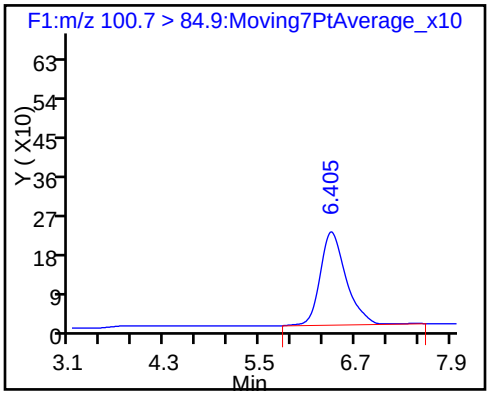
* 1 18-O Perchlorate



2 Perchlorate



2 Perchlorate



FORM VI
LCMS INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2 Analy Batch No.: 45220

SDG No.:

Instrument ID: A6 GC Column: Xterra C18 ID: 3.2(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/19/2014 19:19 Calibration End Date: 06/19/2014 20:31 Calibration ID: 7931

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD01 320-45220/3	19JUN2014b_005.d
Level 2	STD02 320-45220/4	19JUN2014b_006.d
Level 3	STD03 320-45220/5	19JUN2014b_007.d
Level 4	STD04 320-45220/6	19JUN2014b_008.d
Level 5	ICISAV 320-45220/7	19JUN2014b_009.d
Level 6	STD07 320-45220/8	19JUN2014b_010.d
Level 7	STD08 320-45220/9	19JUN2014b_011.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Perchlorate	1.0881 0.9318	1.0127 0.9324	0.9188	0.9279	0.9089	Ave		0.9601				6.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
LCMS INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2 Analy Batch No.: 45220

SDG No.:

Instrument ID: A6 GC Column: Xterra C18 ID: 3.2(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/19/2014 19:19 Calibration End Date: 06/19/2014 20:31 Calibration ID: 7931

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD01 320-45220/3	19JUN2014b_005.d
Level 2	STD02 320-45220/4	19JUN2014b_006.d
Level 3	STD03 320-45220/5	19JUN2014b_007.d
Level 4	STD04 320-45220/6	19JUN2014b_008.d
Level 5	ICISAV 320-45220/7	19JUN2014b_009.d
Level 6	STD07 320-45220/8	19JUN2014b_010.d
Level 7	STD08 320-45220/9	19JUN2014b_011.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Perchlorate	18OP	Ave	84431 4187110	165091 8009461	256322	494450	2326038	0.150 10.0	0.300 20.0	0.500	1.00	5.00

Curve Type Legend:

Ave = Average ISTD

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140620-13363.b\19JUN2014b_005.d
Lims ID: STD01
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 19-Jun-2014 19:19:39 ALS Bottle#: 8 Worklist Smp#: 3
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: STD1
Misc. Info.: 06192014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6
Sublist: chrom-6850_A6*sub1

Method: \\Sacchrom\ChromData\A6\20140620-13363.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 23-Jun-2014 11:15:11 Calib Date: 19-Jun-2014 20:31:35
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140620-13363.b\19JUN2014b_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK011

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.349	6.349	0.0		5176356	10.0		16458	
108.7 > 90.9	6.349	6.349	0.0		1631670		3.17(2.30-3.80)	1987	
2 Perchlorate									
98.7 > 82.8	6.363	6.363	0.0	1.002	84431	0.1700		148	
100.7 > 84.9	6.349	6.363	-0.014	1.000	25167		3.35(2.30-3.80)	49.4	

Report Date: 23-Jun-2014 11:15:11 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140620-13363.b\19JUN2014b_005.d

Injection Date: 19-Jun-2014 19:19:39 Instrument ID: A6

Lims ID: STD01

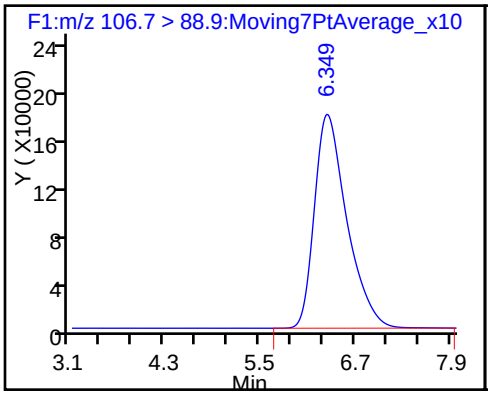
Client ID:

Operator ID: jss ALS Bottle#: 8 Worklist Smp#: 3

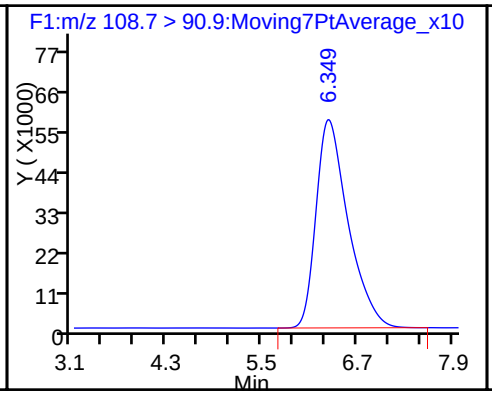
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

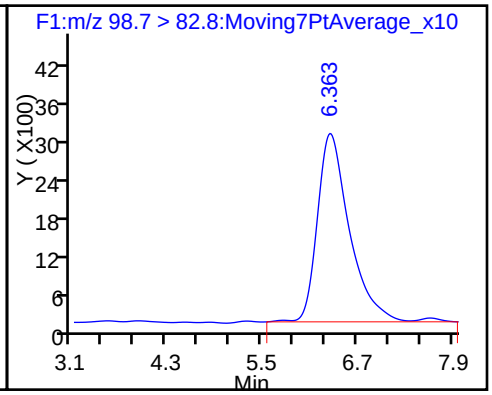
* 1 18-O Perchlorate



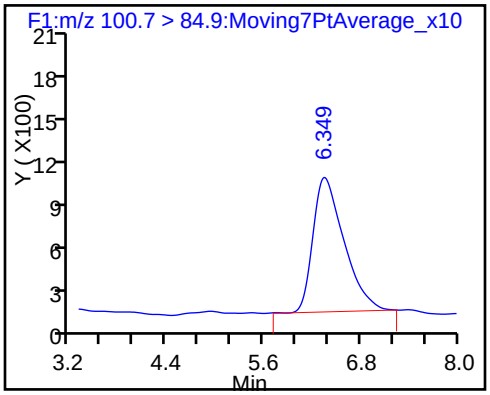
* 1 18-O Perchlorate



2 Perchlorate



2 Perchlorate



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140620-13363.b\19JUN2014b_006.d
Lims ID: STD02
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 19-Jun-2014 19:31:41 ALS Bottle#: 9 Worklist Smp#: 4
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: STD2
Misc. Info.: 06192014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6
Sublist: chrom-6850_A6*sub1

Method: \\Sacchrom\ChromData\A6\20140620-13363.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 23-Jun-2014 11:15:11 Calib Date: 19-Jun-2014 20:31:35
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140620-13363.b\19JUN2014b_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK011

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.363	6.349	0.014		5437712	10.0		4836	
108.7 > 90.9	6.363	6.349	0.014		1700446		3.20(2.30-3.80)	3706	
2 Perchlorate									
98.7 > 82.8	6.363	6.363	0.0	1.000	165091	0.3164		382	
100.7 > 84.9	6.363	6.363	0.0	1.000	50638		3.26(2.30-3.80)	79.6	

Report Date: 23-Jun-2014 11:15:12 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140620-13363.b\19JUN2014b_006.d

Injection Date: 19-Jun-2014 19:31:41 Instrument ID: A6

Lims ID: STD02

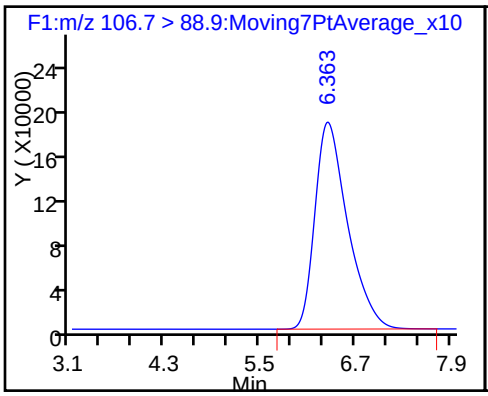
Client ID:

Operator ID: jss ALS Bottle#: 9 Worklist Smp#: 4

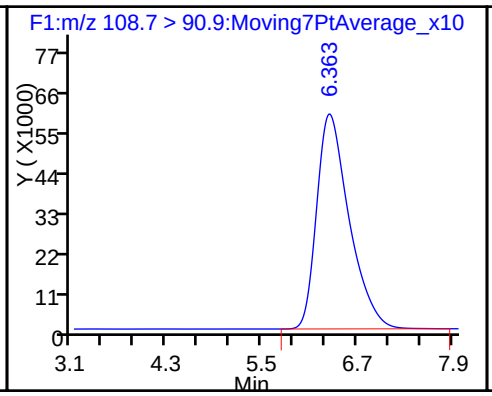
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

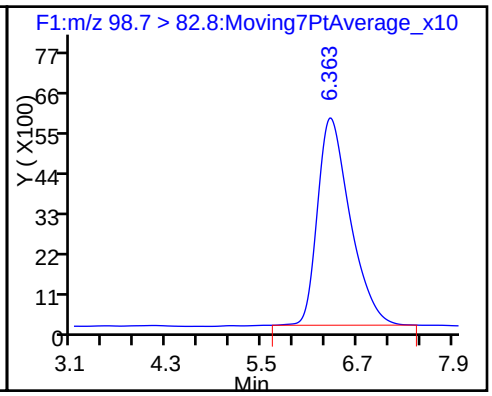
* 1 18-O Perchlorate



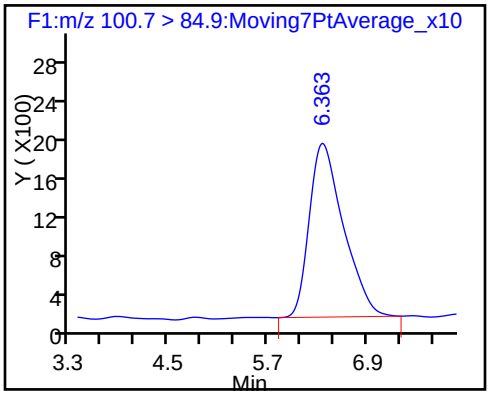
* 1 18-O Perchlorate



2 Perchlorate



2 Perchlorate



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140620-13363.b\19JUN2014b_007.d
Lims ID: STD03
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 19-Jun-2014 19:43:42 ALS Bottle#: 10 Worklist Smp#: 5
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: STD3
Misc. Info.: 06192014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6
Sublist: chrom-6850_A6*sub1

Method: \\Sacchrom\ChromData\A6\20140620-13363.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 23-Jun-2014 11:15:12 Calib Date: 19-Jun-2014 20:31:35
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140620-13363.b\19JUN2014b_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK011

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.363	6.349	0.014		5583539	10.0		4643	
108.7 > 90.9	6.349	6.349	0.0		1733426		3.22(2.30-3.80)	2732	
2 Perchlorate									
98.7 > 82.8	6.363	6.363	0.0	1.000	256322	0.4785		610	
100.7 > 84.9	6.349	6.363	-0.014	0.998	84139		3.05(2.30-3.80)	195	

Report Date: 23-Jun-2014 11:15:12 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140620-13363.b\19JUN2014b_007.d

Injection Date: 19-Jun-2014 19:43:42 Instrument ID: A6

Lims ID: STD03

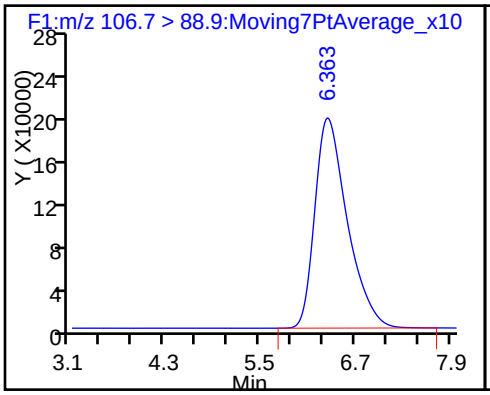
Client ID:

Operator ID: jss ALS Bottle#: 10 Worklist Smp#: 5

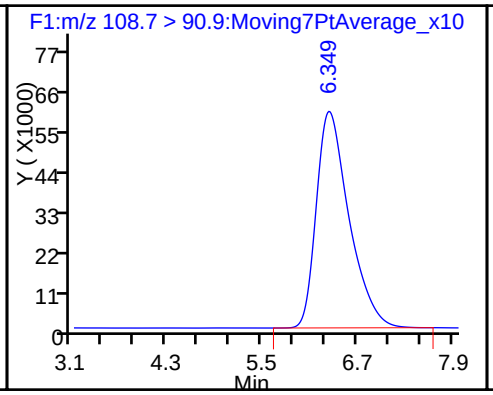
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

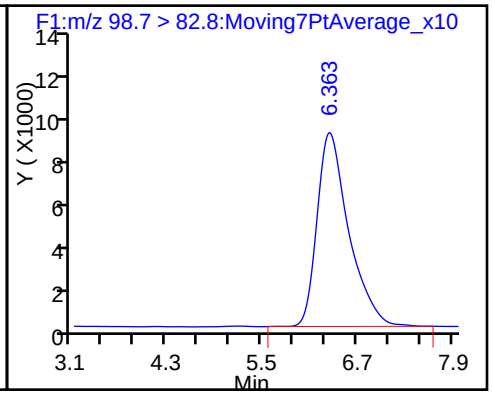
* 1 18-O Perchlorate



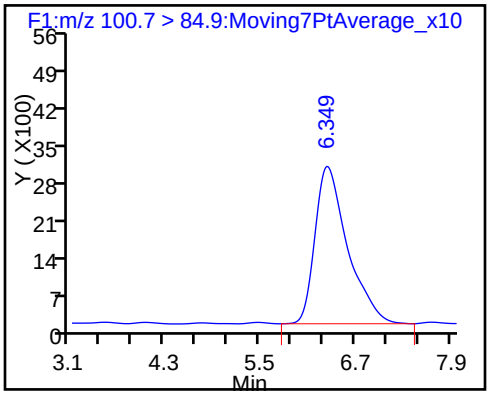
* 1 18-O Perchlorate



2 Perchlorate



2 Perchlorate



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140620-13363.b\19JUN2014b_008.d
Lims ID: STD04
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 19-Jun-2014 19:55:37 ALS Bottle#: 11 Worklist Smp#: 6
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: STD4
Misc. Info.: 06192014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6
Sublist: chrom-6850_A6*sub1

Method: \\Sacchrom\ChromData\A6\20140620-13363.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 23-Jun-2014 11:15:13 Calib Date: 19-Jun-2014 20:31:35
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140620-13363.b\19JUN2014b_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK011

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.363	6.349	0.014		5332422	10.0		5953	
108.7 > 90.9	6.363	6.349	0.014		1654816		3.22(2.30-3.80)	2303	
2 Perchlorate									
98.7 > 82.8	6.363	6.363	0.0	1.000	494450	0.9665		498	
100.7 > 84.9	6.363	6.363	0.0	1.000	167272		2.96(2.30-3.80)	333	

Report Date: 23-Jun-2014 11:15:13 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140620-13363.b\19JUN2014b_008.d

Injection Date: 19-Jun-2014 19:55:37 Instrument ID: A6

Lims ID: STD04

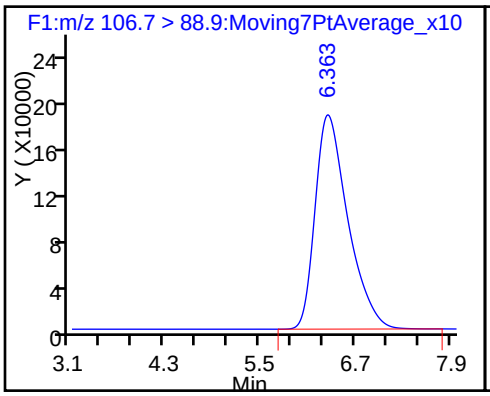
Client ID:

Operator ID: jss ALS Bottle#: 11 Worklist Smp#: 6

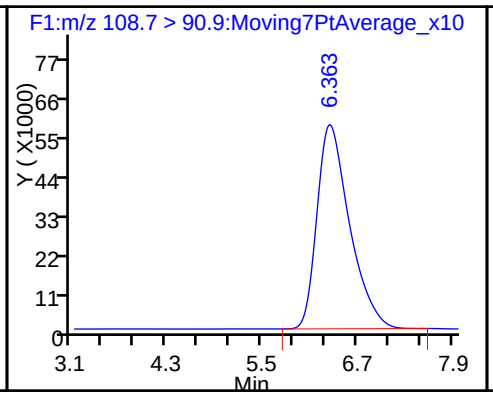
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

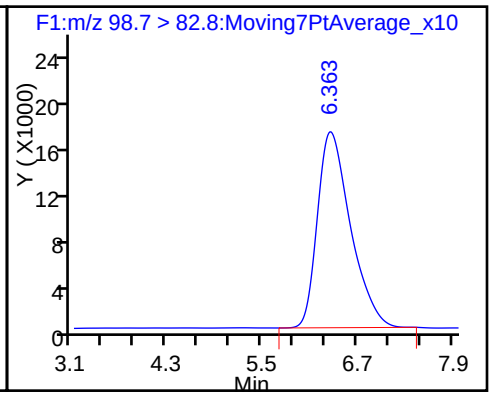
* 1 18-O Perchlorate



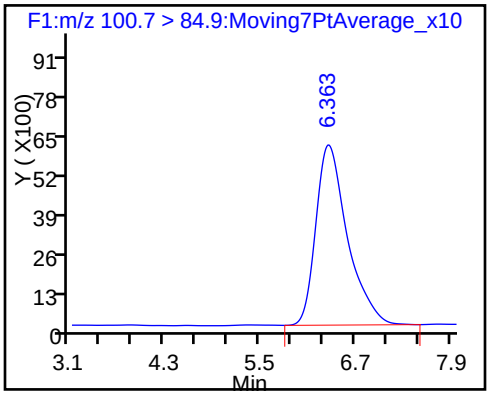
* 1 18-O Perchlorate



2 Perchlorate



2 Perchlorate



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140620-13363.b\19JUN2014b_009.d
Lims ID: STD06
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 19-Jun-2014 20:07:39 ALS Bottle#: 12 Worklist Smp#: 7
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: STD6
Misc. Info.: 06192014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6
Sublist: chrom-6850_A6*sub1

Method: \\Sacchrom\ChromData\A6\20140620-13363.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 23-Jun-2014 11:15:13 Calib Date: 19-Jun-2014 20:31:35
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140620-13363.b\19JUN2014b_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK011

First Level Reviewer: strumj Date: 20-Jun-2014 08:01:56

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.363	6.349	0.014		5121722	10.0		11632	
108.7 > 90.9	6.363	6.349	0.014		1573282		3.26(2.30-3.80)	6710	
2 Perchlorate									M
98.7 > 82.8	6.377	6.363	0.014	1.002	2326038	4.73		1568	M
100.7 > 84.9	6.377	6.363	0.014	1.002	748208		3.11(2.30-3.80)	3657	

QC Flag Legend

Review Flags
M - Manually Integrated

Report Date: 23-Jun-2014 11:15:13 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140620-13363.b\19JUN2014b_009.d

Injection Date: 19-Jun-2014 20:07:39 Instrument ID: A6

Lims ID: STD06

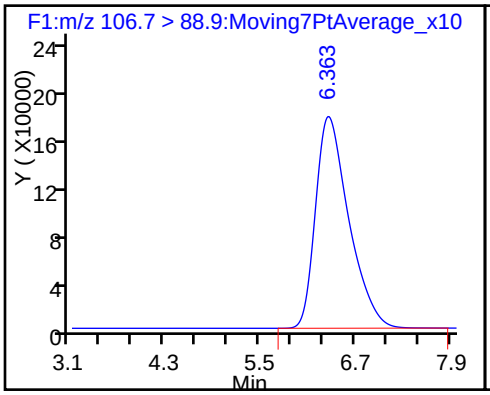
Client ID:

Operator ID: jss ALS Bottle#: 12 Worklist Smp#: 7

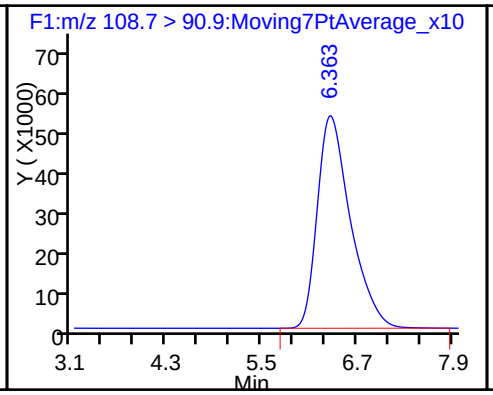
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

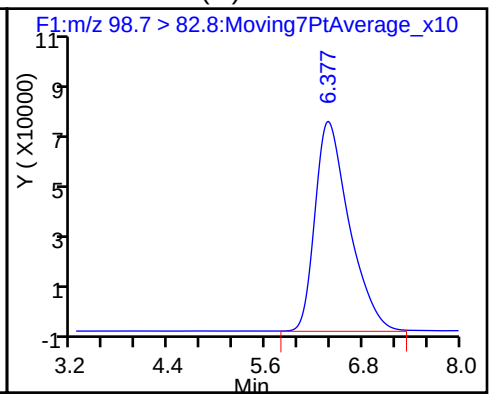
* 1 18-O Perchlorate



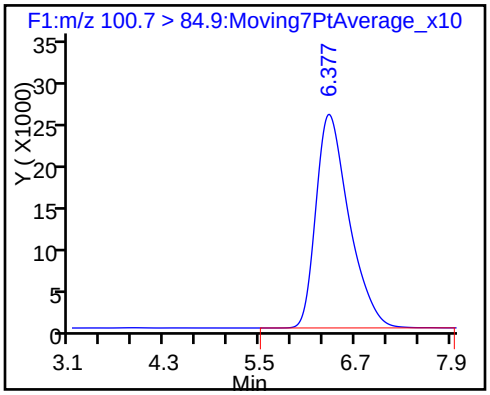
* 1 18-O Perchlorate



2 Perchlorate (M)



2 Perchlorate



Manual Integration/User Assign Peak Report

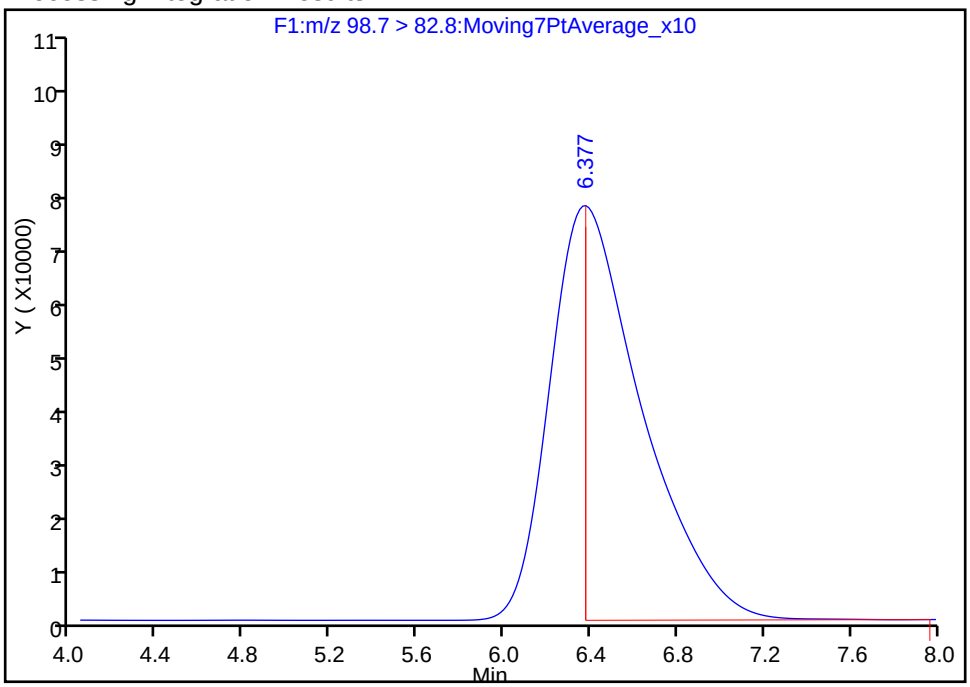
TestAmerica Sacramento

Data File:	\\Sacchrom\ChromData\A6\20140620-13363.b\19JUN2014b_009.d				
Injection Date:	19-Jun-2014 20:07:39	Instrument ID:	A6		
Lims ID:	STD06				
Client ID:					
Operator ID:	jss	ALS Bottle#:	12	Worklist Smp#:	7
Injection Vol:	150.0 ul	Dil. Factor:	1.0000		
Method:	6850_A6	Limit Group:	LC 6850 ICAL		
Column:		Detector	F1:MRM		

2 Perchlorate, CAS: 14797-73-0

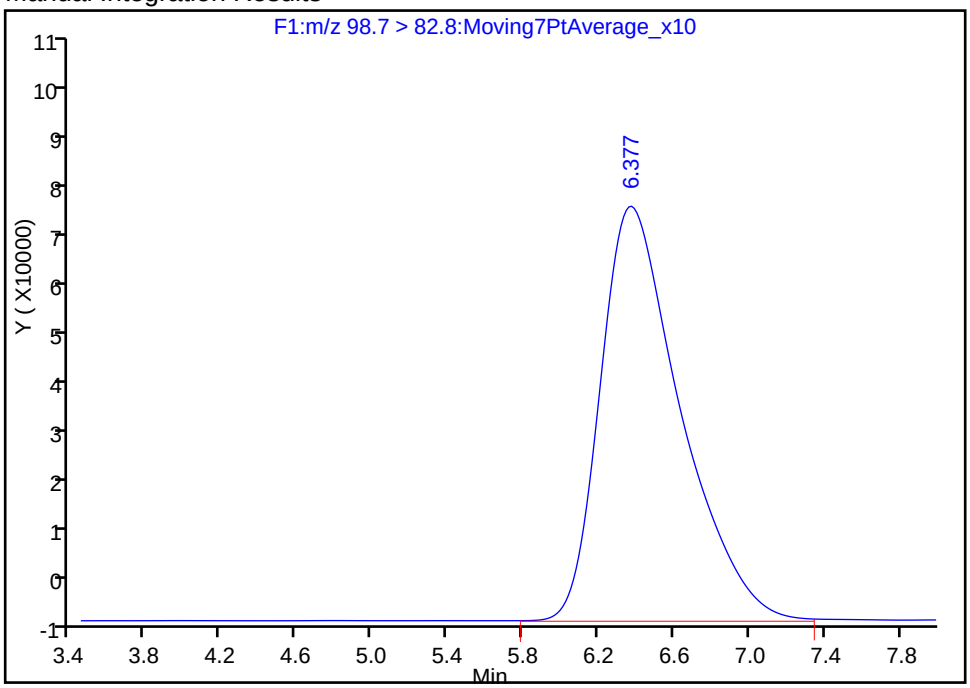
Processing Integration Results

RT: 6.38
Response: 1427061
Amount: 3.274867



Manual Integration Results

RT: 6.38
Response: 2326038
Amount: 4.733583



Reviewer: strumj, 20-Jun-2014 08:01:56
Audit Action: Manually Integrated
Audit Reason: Peak Not Integrated

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140620-13363.b\19JUN2014b_010.d
Lims ID: STD07
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 19-Jun-2014 20:19:34 ALS Bottle#: 13 Worklist Smp#: 8
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: STD7
Misc. Info.: 06192014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6
Sublist: chrom-6850_A6*sub1

Method: \\Sacchrom\ChromData\A6\20140620-13363.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 23-Jun-2014 11:15:15 Calib Date: 19-Jun-2014 20:31:35
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140620-13363.b\19JUN2014b_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK011

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.377	6.349	0.028		4496770	10.0		8802	
108.7 > 90.9	6.377	6.349	0.028		1388099		3.24(2.30-3.80)	2298	
2 Perchlorate									
98.7 > 82.8	6.377	6.363	0.014	1.000	4187110	9.71		8731	
100.7 > 84.9	6.377	6.363	0.014	1.000	1310691		3.19(2.30-3.80)	3358	

Report Date: 23-Jun-2014 11:15:15 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140620-13363.b\19JUN2014b_010.d

Injection Date: 19-Jun-2014 20:19:34 Instrument ID: A6

Lims ID: STD07

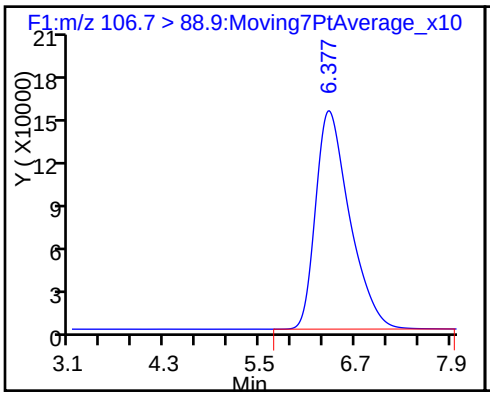
Client ID:

Operator ID: jss ALS Bottle#: 13 Worklist Smp#: 8

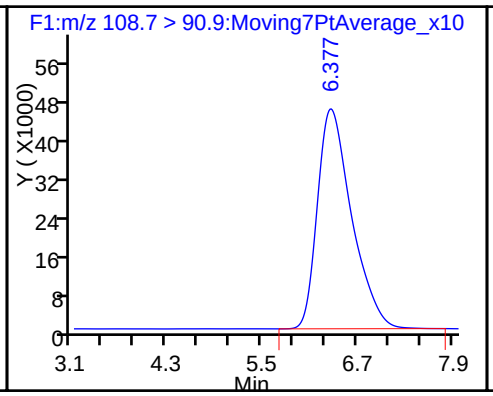
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

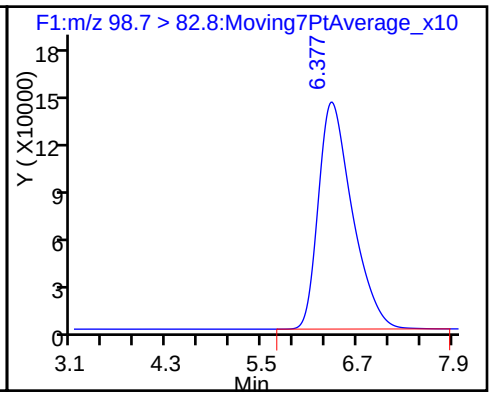
* 1 18-O Perchlorate



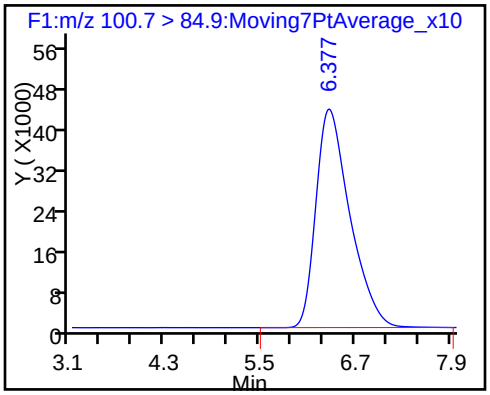
* 1 18-O Perchlorate



2 Perchlorate



2 Perchlorate



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140620-13363.b\19JUN2014b_011.d
Lims ID: STD08
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 19-Jun-2014 20:31:35 ALS Bottle#: 14 Worklist Smp#: 9
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: STD8
Misc. Info.: 06192014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6
Sublist: chrom-6850_A6*sub1

Method: \\Sacchrom\ChromData\A6\20140620-13363.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 23-Jun-2014 11:15:16 Calib Date: 19-Jun-2014 20:31:35
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140620-13363.b\19JUN2014b_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK011

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.377	6.349	0.028		4298127	10.0		5791	
108.7 > 90.9	6.377	6.349	0.028		1330370		3.23(2.30-3.80)	2272	
2 Perchlorate									
98.7 > 82.8	6.391	6.363	0.028	1.002	8009461	19.4		6022	
100.7 > 84.9	6.377	6.363	0.014	1.000	2506208		3.20(2.30-3.80)	5083	

Report Date: 23-Jun-2014 11:15:16 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140620-13363.b\19JUN2014b_011.d

Injection Date: 19-Jun-2014 20:31:35 Instrument ID: A6

Lims ID: STD08

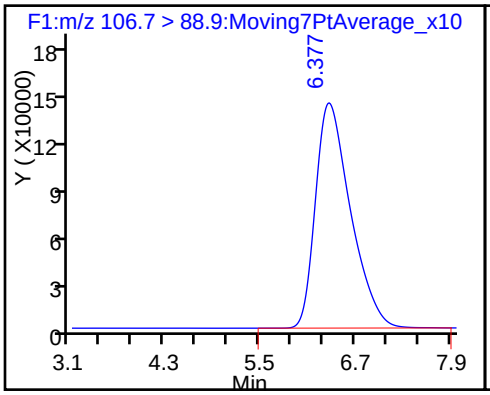
Client ID:

Operator ID: jss ALS Bottle#: 14 Worklist Smp#: 9

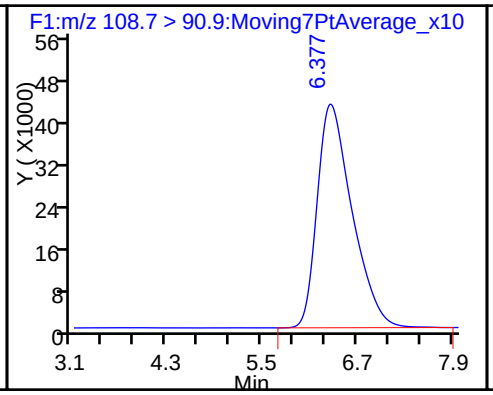
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

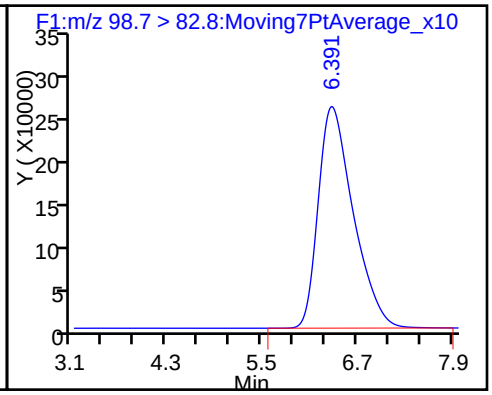
* 1 18-O Perchlorate



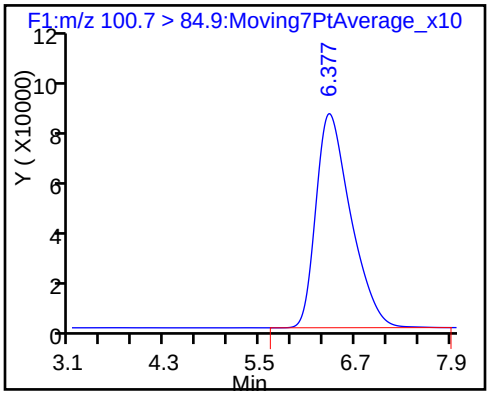
* 1 18-O Perchlorate



2 Perchlorate



2 Perchlorate



FORM VI
LCMS INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2 Analy Batch No.: 45352

SDG No.:

Instrument ID: A6 GC Column: Xterra C18 ID: 3.2(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/21/2014 14:27 Calibration End Date: 06/21/2014 15:39 Calibration ID: 7919

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD01 320-45352/3	21JUN2014b_005.d
Level 2	STD02 320-45352/4	21JUN2014b_006.d
Level 3	STD03 320-45352/5	21JUN2014b_007.d
Level 4	STD04 320-45352/6	21JUN2014b_008.d
Level 5	ICISAV 320-45352/7	21JUN2014b_009.d
Level 6	STD07 320-45352/8	21JUN2014b_010.d
Level 7	STD08 320-45352/9	21JUN2014b_011.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Perchlorate	1.1349 1.0200	1.1574 1.0145	0.9877	1.0163	1.0532	Ave		1.0548				6.2		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
LCMS INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2 Analy Batch No.: 45352

SDG No.:

Instrument ID: A6 GC Column: Xterra C18 ID: 3.2(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/21/2014 14:27 Calibration End Date: 06/21/2014 15:39 Calibration ID: 7919

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD01 320-45352/3	21JUN2014b_005.d
Level 2	STD02 320-45352/4	21JUN2014b_006.d
Level 3	STD03 320-45352/5	21JUN2014b_007.d
Level 4	STD04 320-45352/6	21JUN2014b_008.d
Level 5	ICISAV 320-45352/7	21JUN2014b_009.d
Level 6	STD07 320-45352/8	21JUN2014b_010.d
Level 7	STD08 320-45352/9	21JUN2014b_011.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Perchlorate	18OP	Ave	86019 4599527	161210 8500301	268819	524780	1522000	0.150 10.0	0.300 20.0	0.500	1.00	5.00

Curve Type Legend:

Ave = Average ISTD

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_005.d
Lims ID: STD01
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 21-Jun-2014 14:27:52 ALS Bottle#: 8 Worklist Smp#: 3
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: STD1
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6
Sublist: chrom-6850_A6*sub1

Method: \\Sacchrom\ChromData\A6\20140622-13400.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 23-Jun-2014 08:04:20 Calib Date: 21-Jun-2014 15:39:52
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK011

First Level Reviewer: strumj Date: 22-Jun-2014 14:19:25

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.391	6.391	0.0		5056216	10.0		25047	
108.7 > 90.9	6.377	6.391	-0.014		1587847		3.18(2.30-3.80)	5453	
2 Perchlorate									
98.7 > 82.8	6.405	6.405	0.0	1.002	86019	0.1614		332	
100.7 > 84.9	6.391	6.405	-0.014	1.000	30057		2.86(2.30-3.80)	65.8	

Report Date: 23-Jun-2014 08:04:20 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_005.d

Injection Date: 21-Jun-2014 14:27:52 Instrument ID: A6

Lims ID: STD01

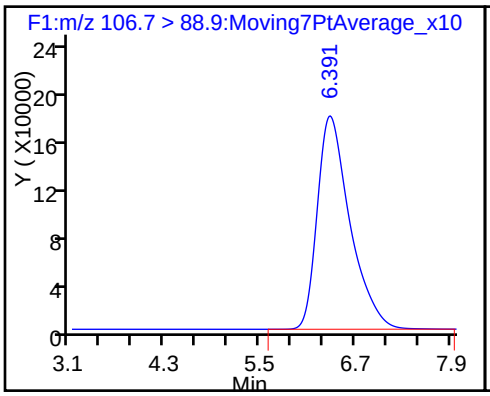
Client ID:

Operator ID: jss ALS Bottle#: 8 Worklist Smp#: 3

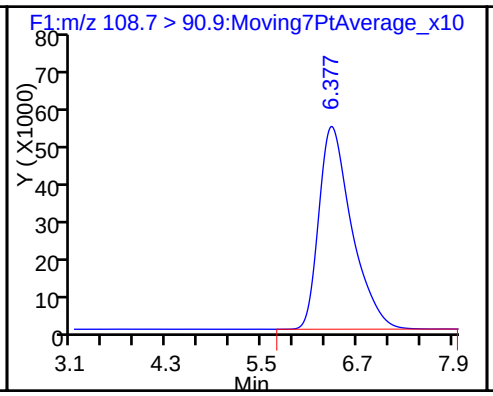
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

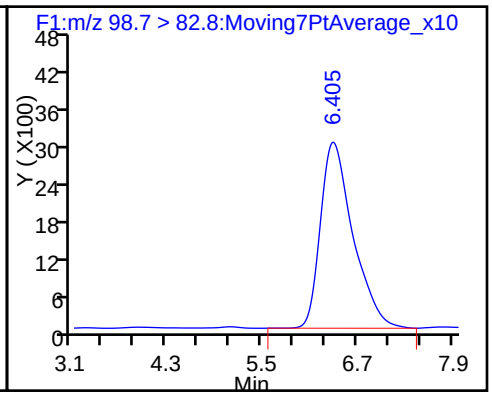
* 1 18-O Perchlorate



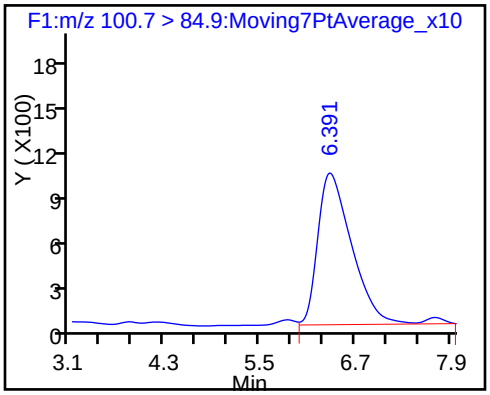
* 1 18-O Perchlorate



2 Perchlorate



2 Perchlorate



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_006.d
Lims ID: STD02
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 21-Jun-2014 14:39:52 ALS Bottle#: 9 Worklist Smp#: 4
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: STD2
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6
Sublist: chrom-6850_A6*sub1

Method: \\Sacchrom\ChromData\A6\20140622-13400.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 23-Jun-2014 08:04:21 Calib Date: 21-Jun-2014 15:39:52
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK011

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.391	6.391	0.0		4646118	10.0		74.6	
108.7 > 90.9	6.391	6.391	0.0		1584868		2.93(2.30-3.80)	3552	
2 Perchlorate									
98.7 > 82.8	6.391	6.405	-0.014	1.000	161210	0.3292		195	
100.7 > 84.9	6.391	6.405	-0.014	1.000	51919		3.11(2.30-3.80)	130	

Report Date: 23-Jun-2014 08:04:21 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_006.d

Injection Date: 21-Jun-2014 14:39:52 Instrument ID: A6

Lims ID: STD02

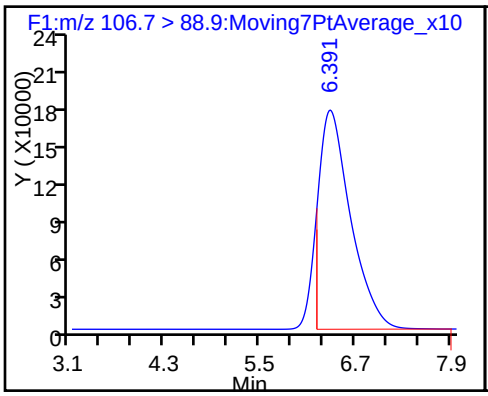
Client ID:

Operator ID: jss ALS Bottle#: 9 Worklist Smp#: 4

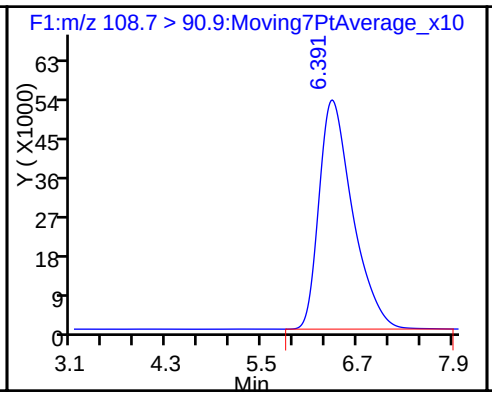
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

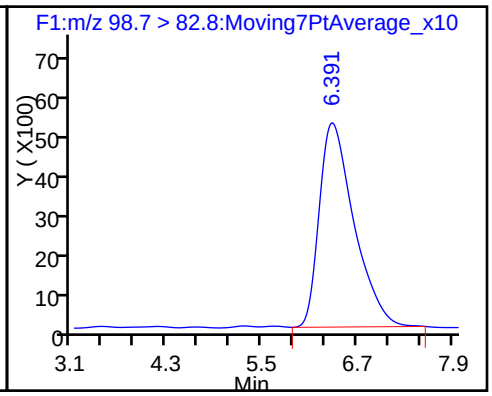
* 1 18-O Perchlorate



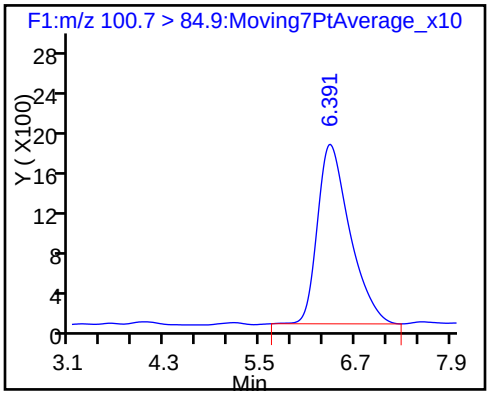
* 1 18-O Perchlorate



2 Perchlorate



2 Perchlorate



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_007.d
Lims ID: STD03
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 21-Jun-2014 14:51:53 ALS Bottle#: 10 Worklist Smp#: 5
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: STD3
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6
Sublist: chrom-6850_A6*sub1

Method: \\Sacchrom\ChromData\A6\20140622-13400.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 23-Jun-2014 08:04:21 Calib Date: 21-Jun-2014 15:39:52
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK011

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.391	6.391	0.0		5447281	10.0		13549	
108.7 > 90.9	6.377	6.391	-0.014		1700455		3.20(2.30-3.80)	3498	
2 Perchlorate									
98.7 > 82.8	6.391	6.405	-0.014	1.000	268819	0.4682		518	
100.7 > 84.9	6.405	6.405	0.0	1.002	86024		3.12(2.30-3.80)	267	

Report Date: 23-Jun-2014 08:04:21 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_007.d

Injection Date: 21-Jun-2014 14:51:53 Instrument ID: A6

Lims ID: STD03

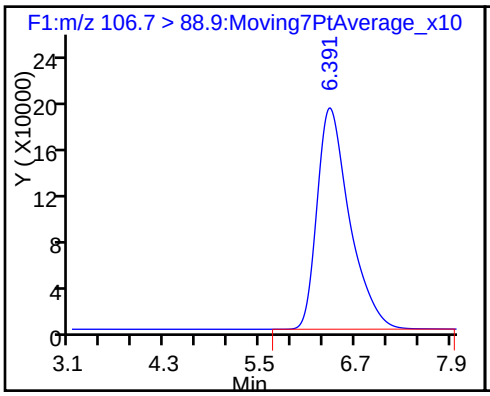
Client ID:

Operator ID: jss ALS Bottle#: 10 Worklist Smp#: 5

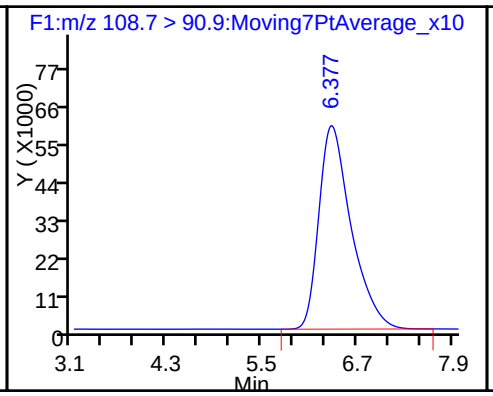
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

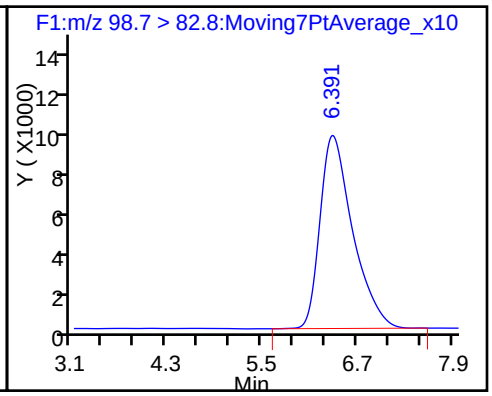
* 1 18-O Perchlorate



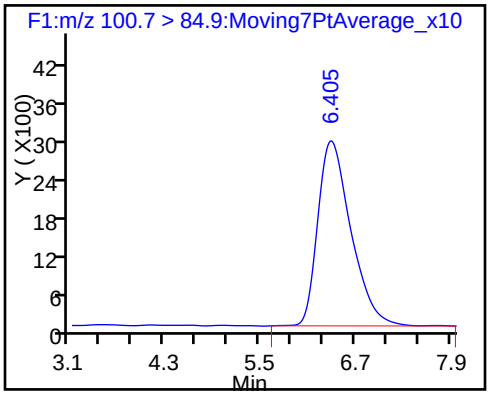
* 1 18-O Perchlorate



2 Perchlorate



2 Perchlorate



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_008.d
Lims ID: STD04
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 21-Jun-2014 15:03:54 ALS Bottle#: 11 Worklist Smp#: 6
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: STD4
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6
Sublist: chrom-6850_A6*sub1

Method: \\Sacchrom\ChromData\A6\20140622-13400.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 23-Jun-2014 08:04:22 Calib Date: 21-Jun-2014 15:39:52
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK011

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.405	6.391	0.014		5167362	10.0		9816	
108.7 > 90.9	6.391	6.391	0.0		1608919		3.21(2.30-3.80)	3261	
2 Perchlorate									
98.7 > 82.8	6.405	6.405	0.0	1.000	524780	0.9634		565	
100.7 > 84.9	6.391	6.405	-0.014	0.998	175847		2.98(2.30-3.80)	410	

Report Date: 23-Jun-2014 08:04:22 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_008.d

Injection Date: 21-Jun-2014 15:03:54 Instrument ID: A6

Lims ID: STD04

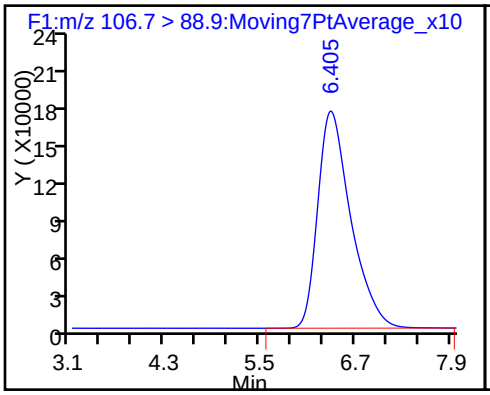
Client ID:

Operator ID: jss ALS Bottle#: 11 Worklist Smp#: 6

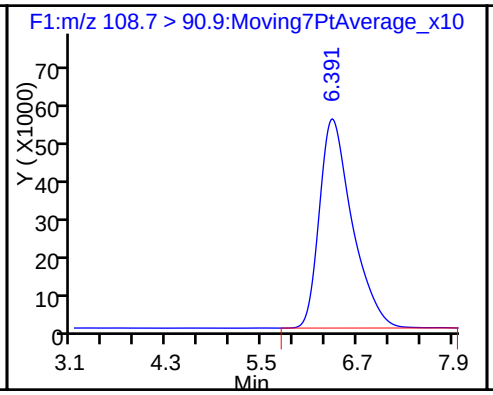
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

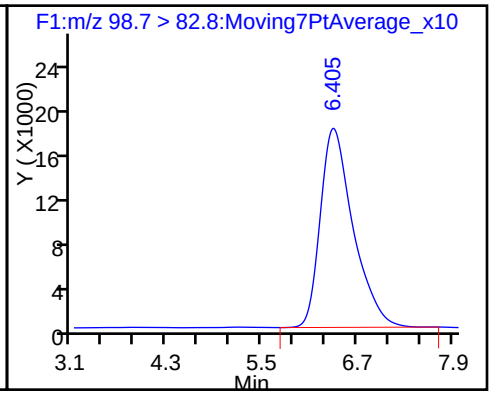
* 1 18-O Perchlorate



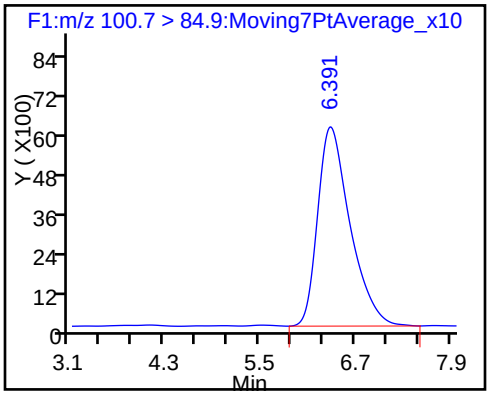
* 1 18-O Perchlorate



2 Perchlorate



2 Perchlorate



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_009.d
Lims ID: STD06
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 21-Jun-2014 15:15:56 ALS Bottle#: 12 Worklist Smp#: 7
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: STD6
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6
Sublist: chrom-6850_A6*sub1

Method: \\Sacchrom\ChromData\A6\20140622-13400.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 23-Jun-2014 08:04:22 Calib Date: 21-Jun-2014 15:39:52
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK011

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									R
106.7 > 88.9	6.391	6.391	0.0		2892160	10.0		18.4	R
108.7 > 90.9	6.391	6.391	0.0		1470390		1.97(2.30-3.80)	3857	
2 Perchlorate									R
98.7 > 82.8	6.391	6.405	-0.014	1.000	1522000	4.99		18.5	R
100.7 > 84.9	6.391	6.405	-0.014	1.000	770002		1.98(2.30-3.80)	1305	

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test

Report Date: 23-Jun-2014 08:04:22 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_009.d

Injection Date: 21-Jun-2014 15:15:56 Instrument ID: A6

Lims ID: STD06

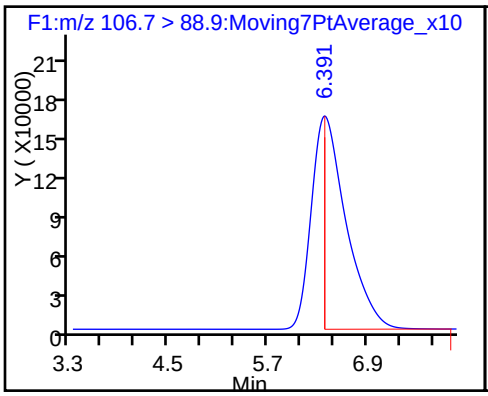
Client ID:

Operator ID: jss ALS Bottle#: 12 Worklist Smp#: 7

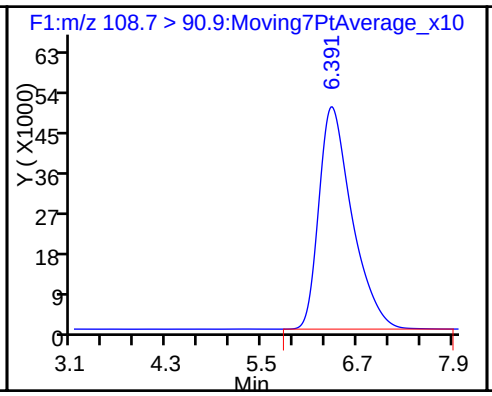
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

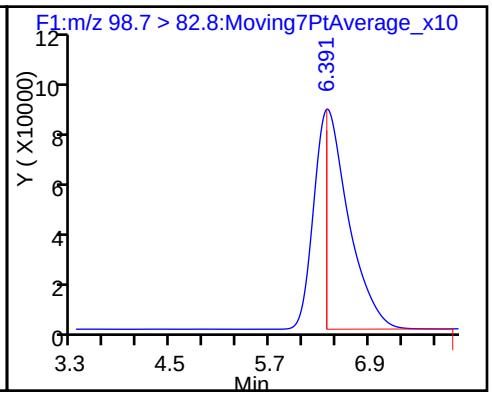
* 1 18-O Perchlorate



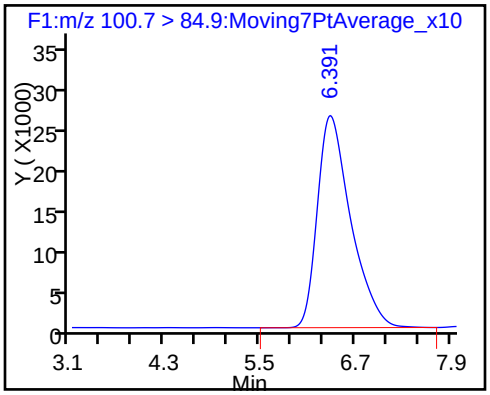
* 1 18-O Perchlorate



2 Perchlorate



2 Perchlorate



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_010.d
Lims ID: STD07
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 21-Jun-2014 15:27:56 ALS Bottle#: 13 Worklist Smp#: 8
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: STD7
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6
Sublist: chrom-6850_A6*sub1

Method: \\Sacchrom\ChromData\A6\20140622-13400.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 23-Jun-2014 08:04:23 Calib Date: 21-Jun-2014 15:39:52
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK011

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.391	6.391	0.0		4512455	10.0		6043	
108.7 > 90.9	6.391	6.391	0.0		1399471		3.22(2.30-3.80)	3314	
2 Perchlorate									
98.7 > 82.8	6.405	6.405	0.0	1.002	4599527	9.67		5116	
100.7 > 84.9	6.405	6.405	0.0	1.002	1476588		3.11(2.30-3.80)	1983	

Report Date: 23-Jun-2014 08:04:23 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_010.d

Injection Date: 21-Jun-2014 15:27:56 Instrument ID: A6

Lims ID: STD07

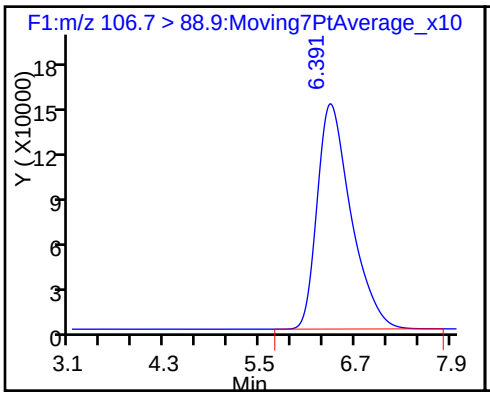
Client ID:

Operator ID: jss ALS Bottle#: 13 Worklist Smp#: 8

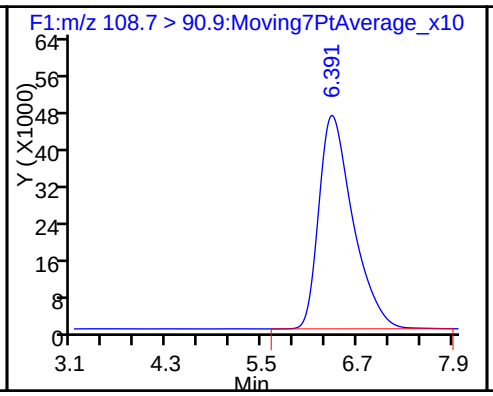
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

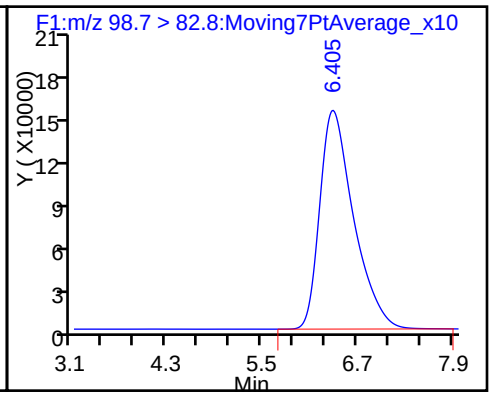
* 1 18-O Perchlorate



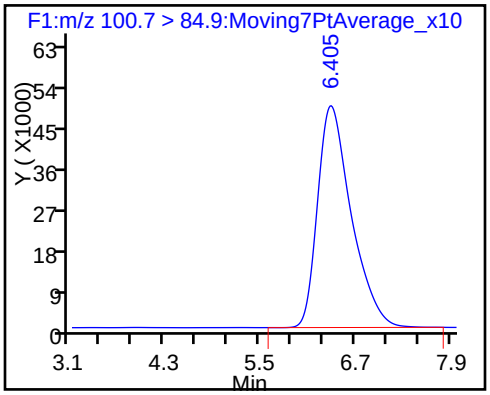
* 1 18-O Perchlorate



2 Perchlorate



2 Perchlorate



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_011.d
Lims ID: STD08
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 21-Jun-2014 15:39:52 ALS Bottle#: 14 Worklist Smp#: 9
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: STD8
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6
Sublist: chrom-6850_A6*sub1

Method: \\Sacchrom\ChromData\A6\20140622-13400.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 23-Jun-2014 08:04:23 Calib Date: 21-Jun-2014 15:39:52
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK011

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.391	6.391	0.0		4192228	10.0		6289	
108.7 > 90.9	6.391	6.391	0.0		1308207		3.20(2.30-3.80)	7112	
2 Perchlorate									
98.7 > 82.8	6.405	6.405	0.0	1.002	8500301	19.2		10746	
100.7 > 84.9	6.405	6.405	0.0	1.002	2695796		3.15(2.30-3.80)	5163	

Report Date: 23-Jun-2014 08:04:24 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_011.d

Injection Date: 21-Jun-2014 15:39:52 Instrument ID: A6

Lims ID: STD08

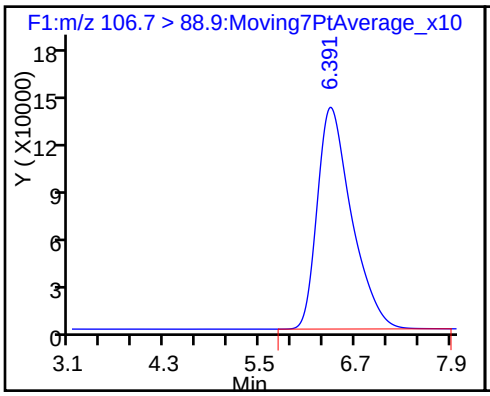
Client ID:

Operator ID: jss ALS Bottle#: 14 Worklist Smp#: 9

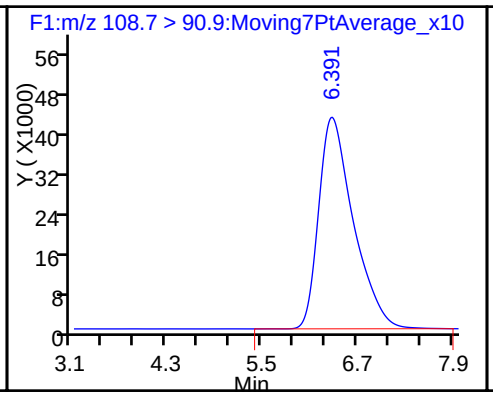
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

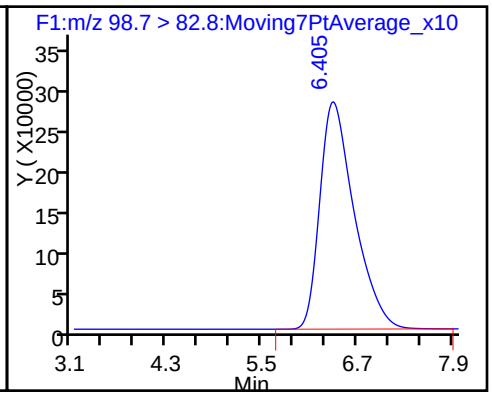
* 1 18-O Perchlorate



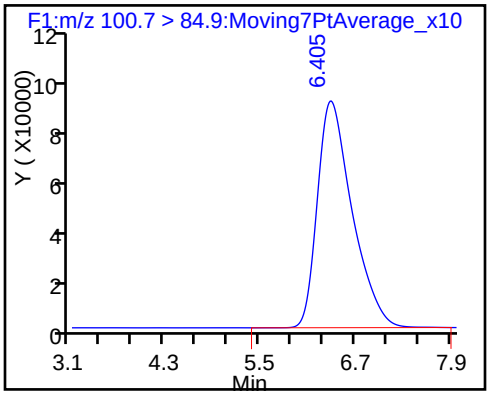
* 1 18-O Perchlorate



2 Perchlorate



2 Perchlorate



FORM VI
LCMS INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2 Analy Batch No.: 45355

SDG No.:

Instrument ID: A6 GC Column: Xterra C18 ID: 3.2(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/22/2014 10:49 Calibration End Date: 06/22/2014 12:01 Calibration ID: 7923

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD01 320-45355/3	22JUN2014a_005.d
Level 2	STD02 320-45355/4	22JUN2014a_006.d
Level 3	STD03 320-45355/5	22JUN2014a_007.d
Level 4	STD04 320-45355/6	22JUN2014a_008.d
Level 5	ICISAV 320-45355/7	22JUN2014a_009.d
Level 6	STD07 320-45355/8	22JUN2014a_010.d
Level 7	STD08 320-45355/9	22JUN2014a_011.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Perchlorate	1.1023 1.1027	1.1201 1.0525	1.0545	1.1139	1.1246	Ave		1.0958				2.7		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
LCMS INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2 Analy Batch No.: 45355

SDG No.:

Instrument ID: A6 GC Column: Xterra C18 ID: 3.2(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/22/2014 10:49 Calibration End Date: 06/22/2014 12:01 Calibration ID: 7923

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD01 320-45355/3	22JUN2014a_005.d
Level 2	STD02 320-45355/4	22JUN2014a_006.d
Level 3	STD03 320-45355/5	22JUN2014a_007.d
Level 4	STD04 320-45355/6	22JUN2014a_008.d
Level 5	ICISAV 320-45355/7	22JUN2014a_009.d
Level 6	STD07 320-45355/8	22JUN2014a_010.d
Level 7	STD08 320-45355/9	22JUN2014a_011.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Perchlorate	18OP	Ave	75022 4703415	162557 8622734	252678	547531	2305006	0.150 10.0	0.300 20.0	0.500	1.00	5.00

Curve Type Legend:

Ave = Average ISTD

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_005.d
Lims ID: STD01
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 22-Jun-2014 10:49:38 ALS Bottle#: 8 Worklist Smp#: 3
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: STD1
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6
Sublist: chrom-6850_A6*sub1

Method: \\Sacchrom\ChromData\A6\20140622-13401.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 23-Jun-2014 07:51:32 Calib Date: 22-Jun-2014 12:01:35
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK011

First Level Reviewer: strumj Date: 22-Jun-2014 14:40:32

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									M
106.7 > 88.9	6.391	6.391	0.0		4540248	10.0		4013	M
108.7 > 90.9	6.391	6.391	0.0		1394177		3.26(2.30-3.80)	4731	
2 Perchlorate									
98.7 > 82.8	6.405	6.405	0.0	1.002	75022	0.1509		181	
100.7 > 84.9	6.377	6.405	-0.028	0.998	20138		3.73(2.30-3.80)	105	

QC Flag Legend

Review Flags
M - Manually Integrated

Report Date: 23-Jun-2014 07:51:32 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_005.d

Injection Date: 22-Jun-2014 10:49:38 Instrument ID: A6

Lims ID: STD01

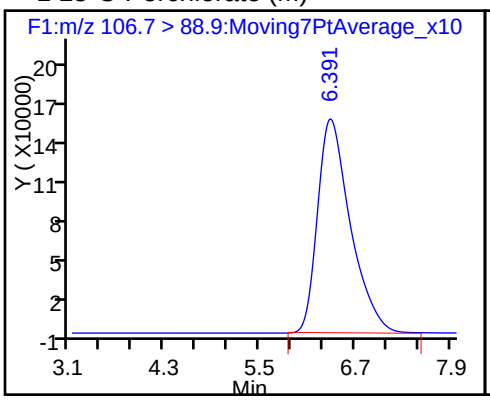
Client ID:

Operator ID: jss ALS Bottle#: 8 Worklist Smp#: 3

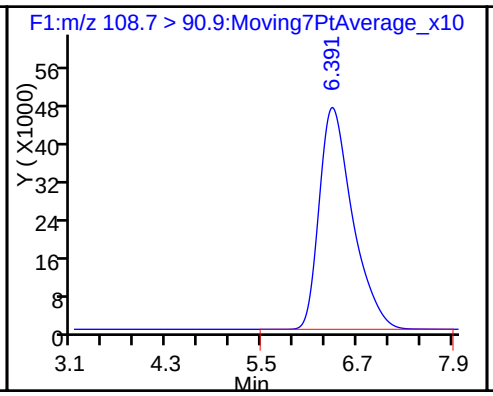
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

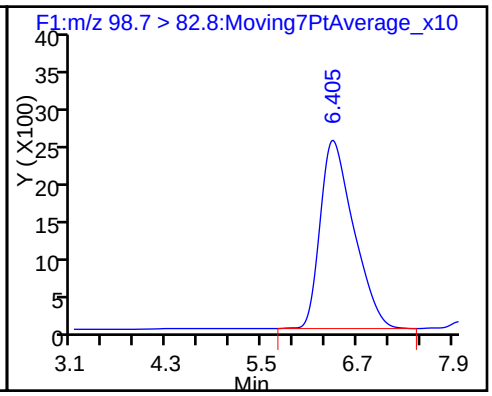
* 1 18-O Perchlorate (M)



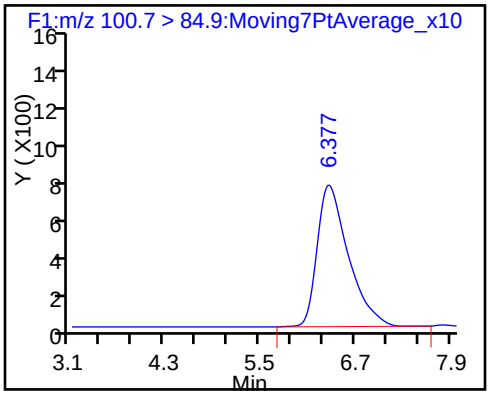
* 1 18-O Perchlorate



2 Perchlorate



2 Perchlorate



Manual Integration/User Assign Peak Report

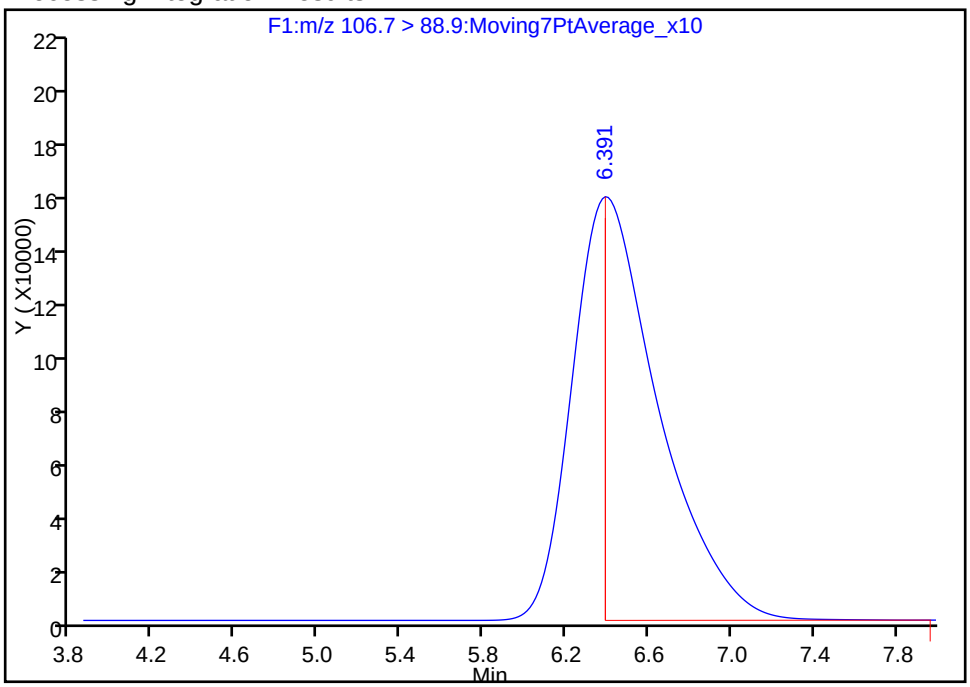
TestAmerica Sacramento

Data File:	\\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_005.d				
Injection Date:	22-Jun-2014 10:49:38	Instrument ID:	A6		
Lims ID:	STD01				
Client ID:					
Operator ID:	jss	ALS Bottle#:	8	Worklist Smp#:	3
Injection Vol:	150.0 ul	Dil. Factor:	1.0000		
Method:	6850_A6	Limit Group:	LC 6850 ICAL		
Column:		Detector	F1:MRM		

* 1 18-O Perchlorate, CAS: 7601-89-0

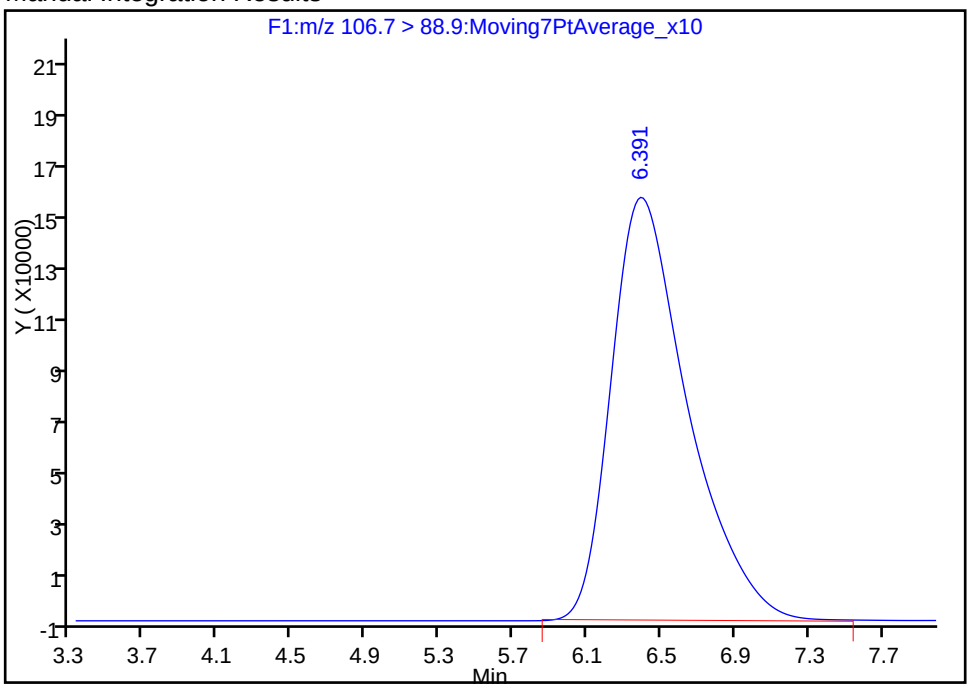
Processing Integration Results

RT: 6.39
Response: 2828949
Amount: 10.006764



Manual Integration Results

RT: 6.39
Response: 4540248
Amount: 10.006764



Reviewer: strumj, 22-Jun-2014 15:02:10
Audit Action: Manually Integrated
Audit Reason: Peak Not Integrated

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_006.d
Lims ID: STD02
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 22-Jun-2014 11:01:40 ALS Bottle#: 9 Worklist Smp#: 4
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: STD2
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6
Sublist: chrom-6850_A6*sub1

Method: \\Sacchrom\ChromData\A6\20140622-13401.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 23-Jun-2014 07:51:32 Calib Date: 22-Jun-2014 12:01:35
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK011

First Level Reviewer: strumj Date: 22-Jun-2014 15:02:14

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.391	6.391	0.0		4840763	10.0		4838	
108.7 > 90.9	6.391	6.391	0.0		1501859		3.22(2.30-3.80)	2044	
2 Perchlorate									
98.7 > 82.8	6.405	6.405	0.0	1.002	162557	0.3067		246	
100.7 > 84.9	6.405	6.405	0.0	1.002	54598		2.98(2.30-3.80)	141	

Report Date: 23-Jun-2014 07:51:33 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_006.d

Injection Date: 22-Jun-2014 11:01:40 Instrument ID: A6

Lims ID: STD02

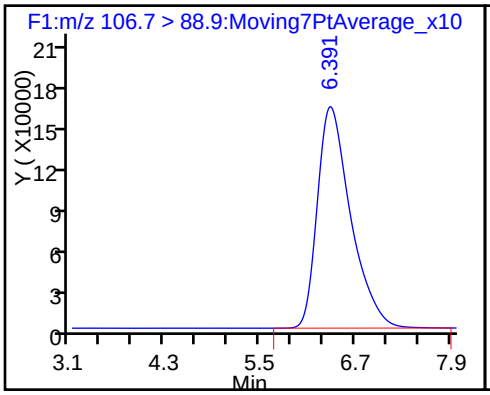
Client ID:

Operator ID: jss ALS Bottle#: 9 Worklist Smp#: 4

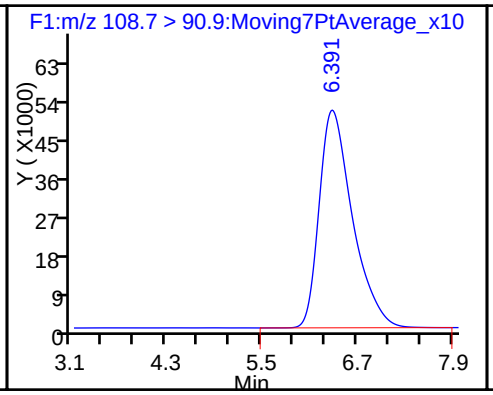
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

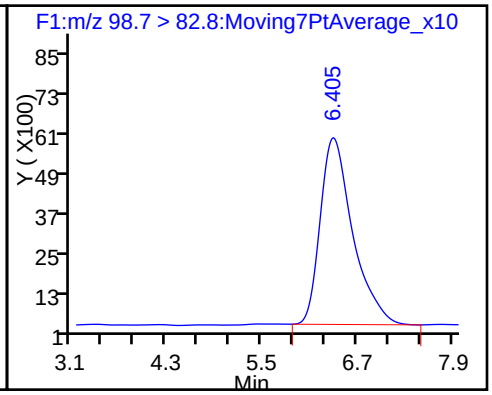
* 1 18-O Perchlorate



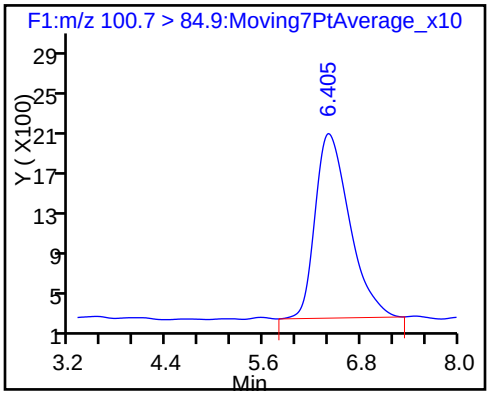
* 1 18-O Perchlorate



2 Perchlorate



2 Perchlorate



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_007.d
Lims ID: STD03
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 22-Jun-2014 11:13:35 ALS Bottle#: 10 Worklist Smp#: 5
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: STD3
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6
Sublist: chrom-6850_A6*sub1

Method: \\Sacchrom\ChromData\A6\20140622-13401.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 23-Jun-2014 07:51:33 Calib Date: 22-Jun-2014 12:01:35
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK011

First Level Reviewer: strumj Date: 22-Jun-2014 15:02:18

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.391	6.391	0.0		4795581	10.0		5398	
108.7 > 90.9	6.391	6.391	0.0		1492544		3.21(2.30-3.80)	2286	
2 Perchlorate									
98.7 > 82.8	6.405	6.405	0.0	1.002	252678	0.4812		222	
100.7 > 84.9	6.405	6.405	0.0	1.002	81531		3.10(2.30-3.80)	110	

Report Date: 23-Jun-2014 07:51:33 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_007.d

Injection Date: 22-Jun-2014 11:13:35 Instrument ID: A6

Lims ID: STD03

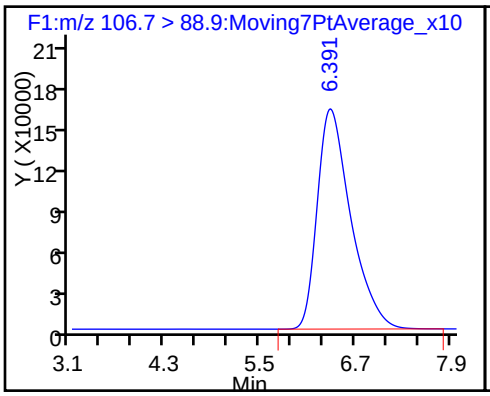
Client ID:

Operator ID: jss ALS Bottle#: 10 Worklist Smp#: 5

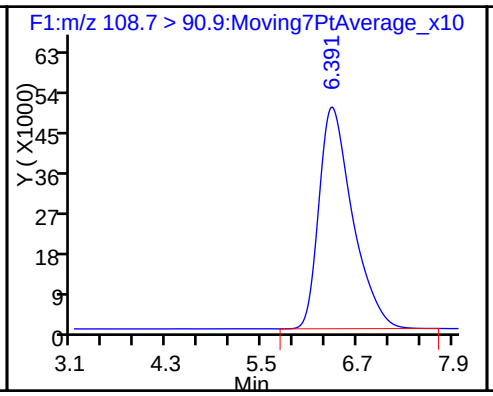
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

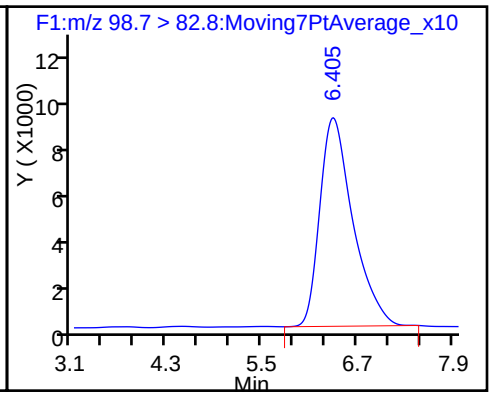
* 1 18-O Perchlorate



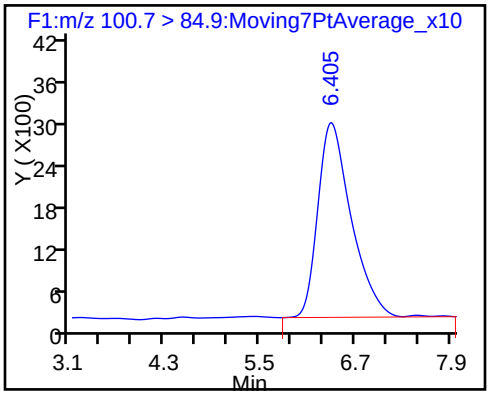
* 1 18-O Perchlorate



2 Perchlorate



2 Perchlorate



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_008.d
Lims ID: STD04
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 22-Jun-2014 11:25:36 ALS Bottle#: 11 Worklist Smp#: 6
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: STD4
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6
Sublist: chrom-6850_A6*sub1

Method: \\Sacchrom\ChromData\A6\20140622-13401.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 23-Jun-2014 07:51:33 Calib Date: 22-Jun-2014 12:01:35
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK011

First Level Reviewer: strumj Date: 22-Jun-2014 15:02:34

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									M
106.7 > 88.9	6.391	6.391	0.0		4918802	10.0		3793	M
108.7 > 90.9	6.391	6.391	0.0		1532015		3.21(2.30-3.80)	4381	
2 Perchlorate									
98.7 > 82.8	6.405	6.405	0.0	1.002	547531	1.02		3157	
100.7 > 84.9	6.405	6.405	0.0	1.002	164974		3.32(2.30-3.80)	1904	

QC Flag Legend

Review Flags
M - Manually Integrated

Report Date: 23-Jun-2014 07:51:33 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_008.d

Injection Date: 22-Jun-2014 11:25:36 Instrument ID: A6

Lims ID: STD04

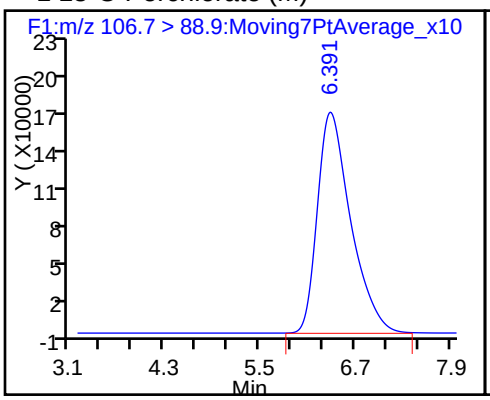
Client ID:

Operator ID: jss ALS Bottle#: 11 Worklist Smp#: 6

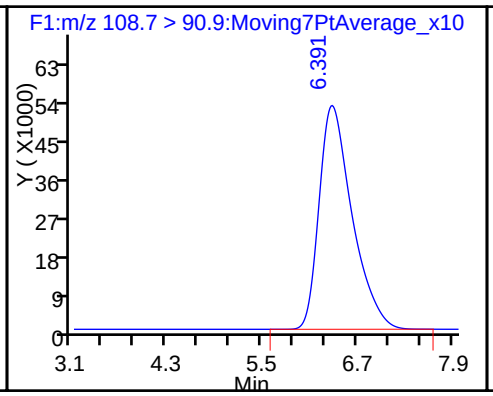
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

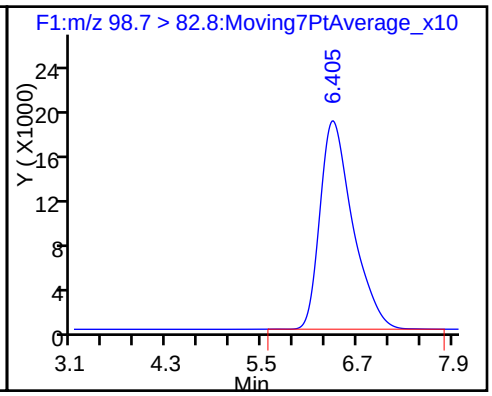
* 1 18-O Perchlorate (M)



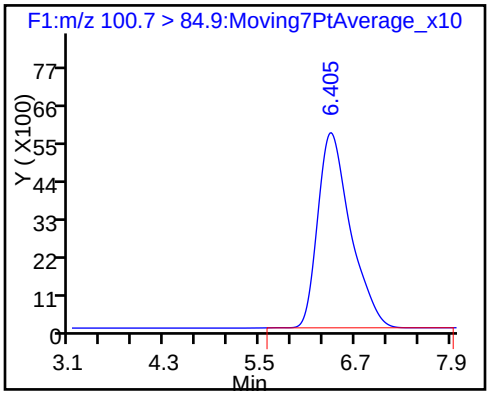
* 1 18-O Perchlorate



2 Perchlorate



2 Perchlorate



Manual Integration/User Assign Peak Report

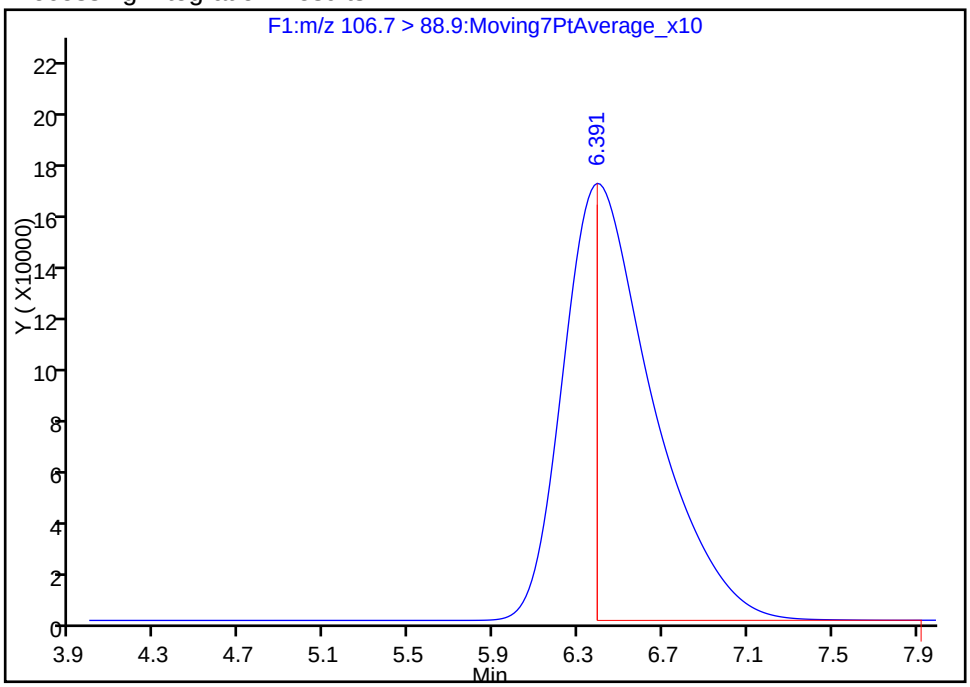
TestAmerica Sacramento

Data File:	\\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_008.d				
Injection Date:	22-Jun-2014 11:25:36	Instrument ID:	A6		
Lims ID:	STD04				
Client ID:					
Operator ID:	jss	ALS Bottle#:	11	Worklist Smp#:	6
Injection Vol:	150.0 ul	Dil. Factor:	1.0000		
Method:	6850_A6	Limit Group:	LC 6850 ICAL		
Column:		Detector	F1:MRM		

* 1 18-O Perchlorate, CAS: 7601-89-0

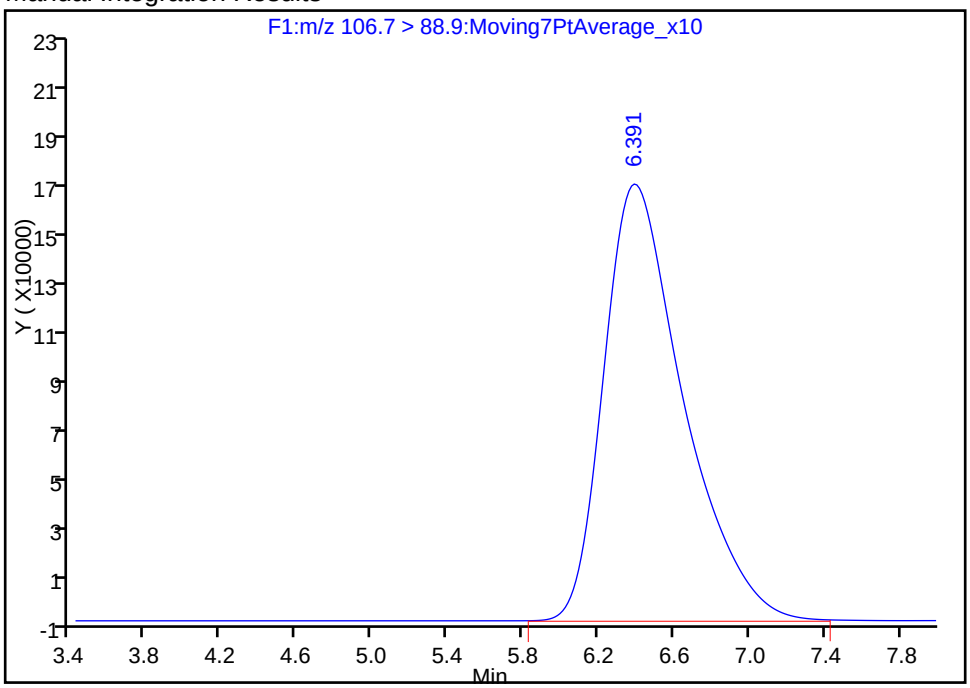
Processing Integration Results

RT: 6.39
Response: 3054765
Amount: 10.006764



Manual Integration Results

RT: 6.39
Response: 4918802
Amount: 10.006764



Reviewer: strumj, 22-Jun-2014 15:02:34
Audit Action: Manually Integrated
Audit Reason: Peak Not Integrated

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_009.d
Lims ID: STD06
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 22-Jun-2014 11:37:32 ALS Bottle#: 12 Worklist Smp#: 7
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: STD6
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6
Sublist: chrom-6850_A6*sub1

Method: \\Sacchrom\ChromData\A6\20140622-13401.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 23-Jun-2014 07:51:34 Calib Date: 22-Jun-2014 12:01:35
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK011

First Level Reviewer: strumj Date: 22-Jun-2014 15:02:39

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.391	6.391	0.0		4102189	10.0		7159	
108.7 > 90.9	6.391	6.391	0.0		1270415		3.23(2.30-3.80)	3527	
2 Perchlorate									
98.7 > 82.8	6.405	6.405	0.0	1.002	2305006	5.13		3619	
100.7 > 84.9	6.405	6.405	0.0	1.002	747703		3.08(2.30-3.80)	1235	

Report Date: 23-Jun-2014 07:51:34 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_009.d

Injection Date: 22-Jun-2014 11:37:32 Instrument ID: A6

Lims ID: STD06

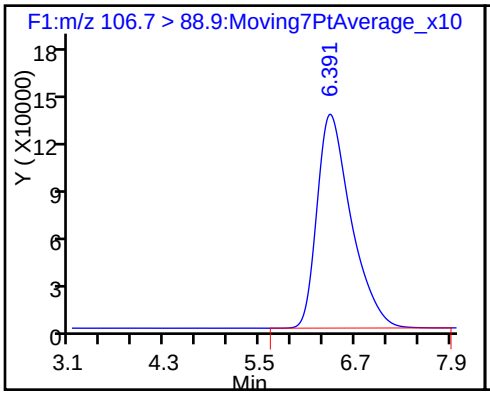
Client ID:

Operator ID: jss ALS Bottle#: 12 Worklist Smp#: 7

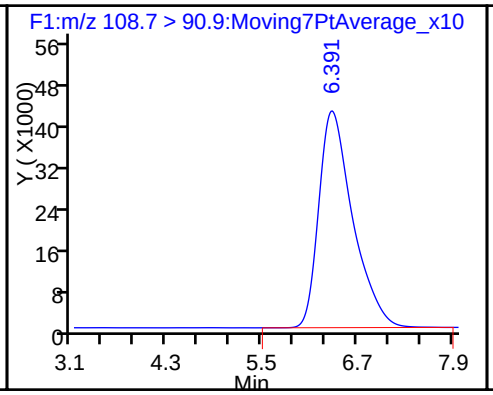
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

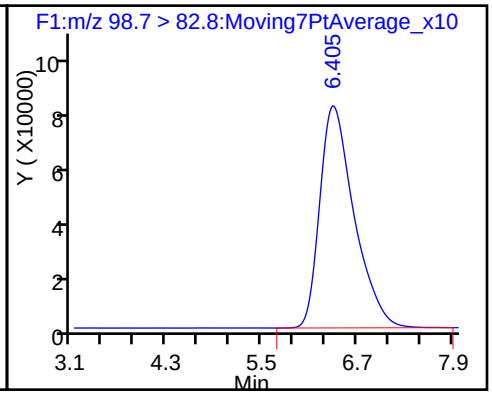
* 1 18-O Perchlorate



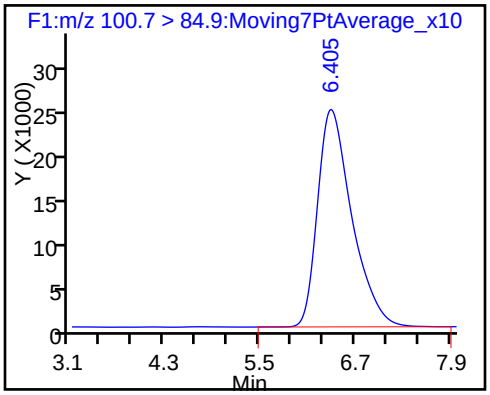
* 1 18-O Perchlorate



2 Perchlorate



2 Perchlorate



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_010.d
Lims ID: STD07
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 22-Jun-2014 11:49:34 ALS Bottle#: 13 Worklist Smp#: 8
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: STD7
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6
Sublist: chrom-6850_A6*sub1

Method: \\Sacchrom\ChromData\A6\20140622-13401.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 23-Jun-2014 07:51:35 Calib Date: 22-Jun-2014 12:01:35
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK011

First Level Reviewer: strumj Date: 22-Jun-2014 15:02:43

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.391	6.391	0.0		4268290	10.0		8643	
108.7 > 90.9	6.391	6.391	0.0		1289502		3.31(2.30-3.80)	1498	
2 Perchlorate									
98.7 > 82.8	6.405	6.405	0.0	1.002	4703415	10.1		5731	
100.7 > 84.9	6.405	6.405	0.0	1.002	1493495		3.15(2.30-3.80)	2325	

Report Date: 23-Jun-2014 07:51:35 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_010.d

Injection Date: 22-Jun-2014 11:49:34 Instrument ID: A6

Lims ID: STD07

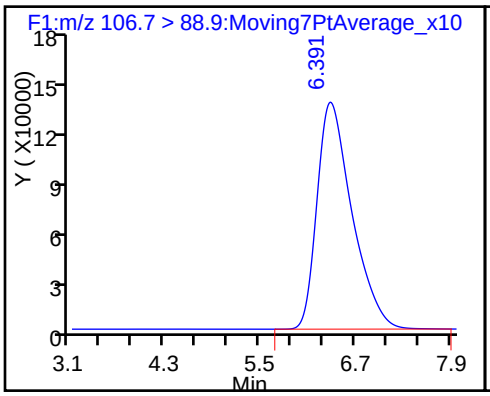
Client ID:

Operator ID: jss ALS Bottle#: 13 Worklist Smp#: 8

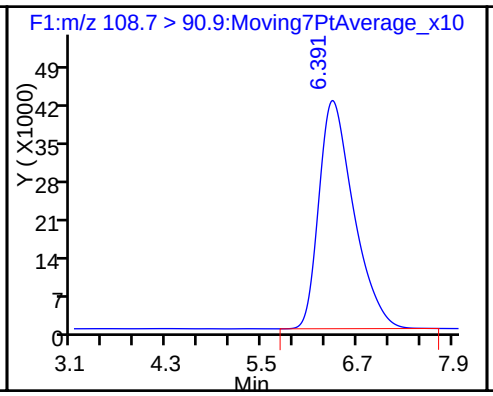
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

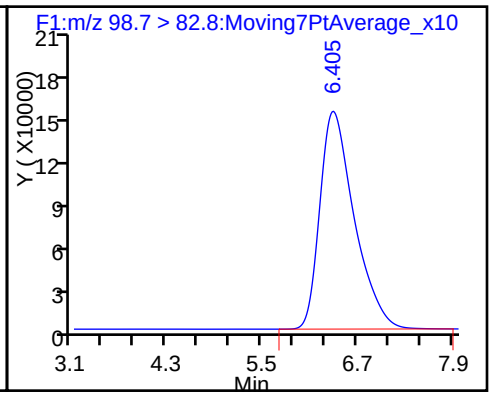
* 1 18-O Perchlorate



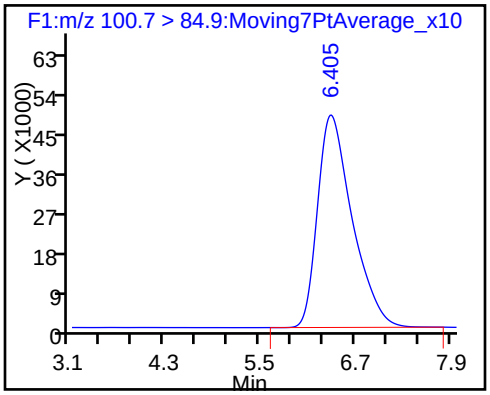
* 1 18-O Perchlorate



2 Perchlorate



2 Perchlorate



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_011.d
Lims ID: STD08
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 22-Jun-2014 12:01:35 ALS Bottle#: 14 Worklist Smp#: 9
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: STD8
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6
Sublist: chrom-6850_A6*sub1

Method: \\Sacchrom\ChromData\A6\20140622-13401.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 23-Jun-2014 07:51:35 Calib Date: 22-Jun-2014 12:01:35
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK011

First Level Reviewer: strumj Date: 22-Jun-2014 15:02:47

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.405	6.391	0.014		4099280	10.0		4698	
108.7 > 90.9	6.405	6.391	0.014		1281325		3.20(2.30-3.80)	4093	
2 Perchlorate									
98.7 > 82.8	6.405	6.405	0.0	1.000	8622734	19.2		9823	
100.7 > 84.9	6.405	6.405	0.0	1.000	2783810		3.10(2.30-3.80)	5240	

Report Date: 23-Jun-2014 07:51:35 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_011.d

Injection Date: 22-Jun-2014 12:01:35 Instrument ID: A6

Lims ID: STD08

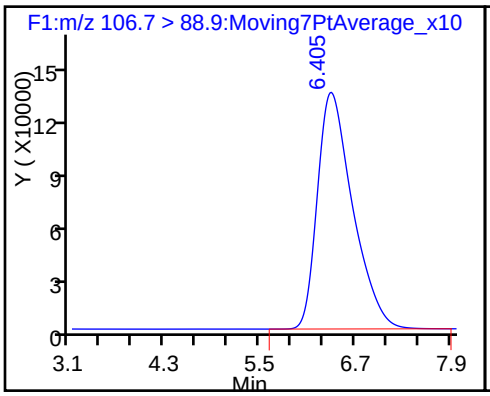
Client ID:

Operator ID: jss ALS Bottle#: 14 Worklist Smp#: 9

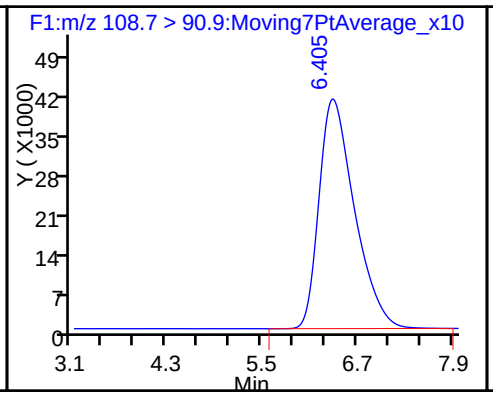
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

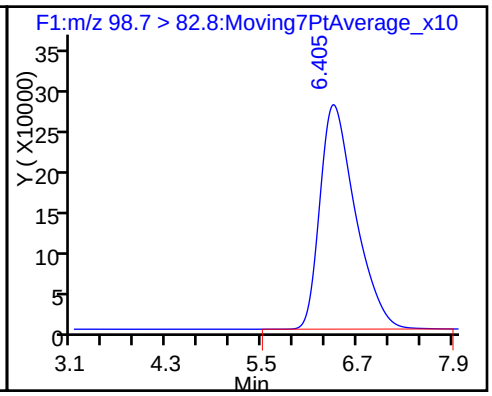
* 1 18-O Perchlorate



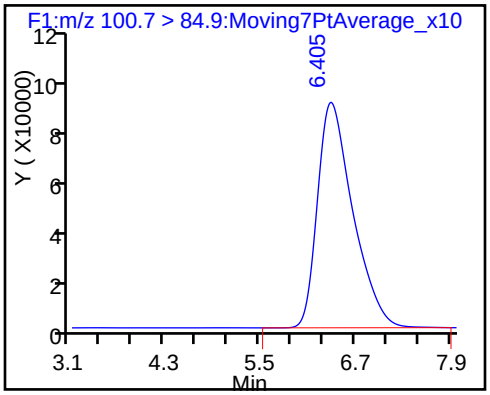
* 1 18-O Perchlorate



2 Perchlorate



2 Perchlorate



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2

SDG No.:

Lab Sample ID: ICV 320-45352/11 Calibration Date: 06/21/2014 16:03

Instrument ID: A6 Calib Start Date: 06/21/2014 14:27

GC Column: Xterra C18 ID: 3.20(mm) Calib End Date: 06/21/2014 15:39

Lab File ID: 21JUN2014b_013.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	1.055	1.032		4.89	5.00	-2.1	15.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_013.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 21-Jun-2014 16:03:47 ALS Bottle#: 15 Worklist Smp#: 11
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: icv
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6
Sublist:

Method: \\Sacchrom\ChromData\A6\20140622-13400.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 24-Jun-2014 15:53:39 Calib Date: 21-Jun-2014 15:39:52
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK007

First Level Reviewer: strumj Date: 22-Jun-2014 14:21:06

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.391	6.391	0.0		4640006	10.0		8296	
108.7 > 90.9	6.391	6.391	0.0		1445987		3.21(2.30-3.80)	2364	
2 Perchlorate									
98.7 > 82.8	6.405	6.405	0.0	1.002	2393331	4.89		1704	
100.7 > 84.9	6.391	6.405	-0.014	1.000	772818		3.10(2.30-3.80)	1244	

Report Date: 24-Jun-2014 15:53:39 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_013.d

Injection Date: 21-Jun-2014 16:03:47 Instrument ID: A6

Lims ID: ICV

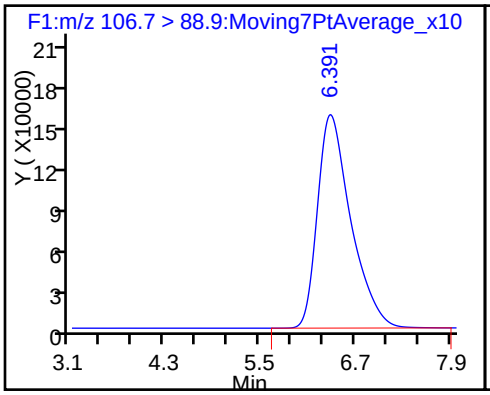
Client ID:

Operator ID: jss ALS Bottle#: 15 Worklist Smp#: 11

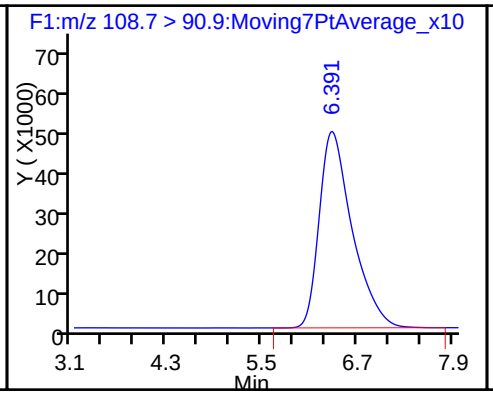
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

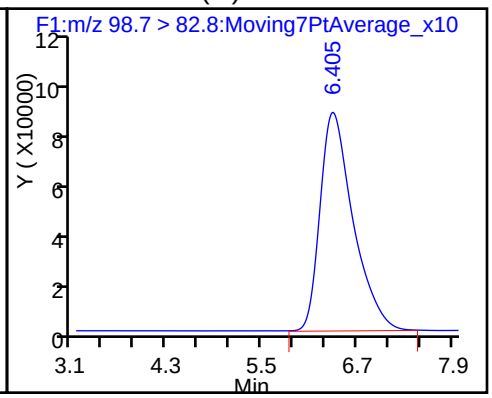
* 1 18-O Perchlorate



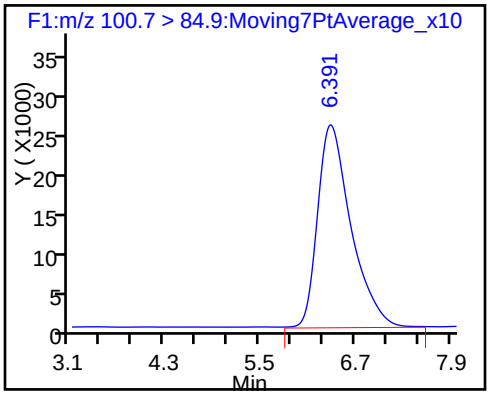
* 1 18-O Perchlorate



2 Perchlorate (M)



2 Perchlorate



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2

SDG No.:

Lab Sample ID: CCVL 320-45352/13 Calibration Date: 06/21/2014 16:27

Instrument ID: A6 Calib Start Date: 06/21/2014 14:27

GC Column: Xterra C18 ID: 3.20(mm) Calib End Date: 06/21/2014 15:39

Lab File ID: 21JUN2014b_015.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	1.055	1.001		0.475	0.500	-5.1	50.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_015.d
Lims ID: CCVL
Client ID:
Sample Type: CCVL
Inject. Date: 21-Jun-2014 16:27:49 ALS Bottle#: 10 Worklist Smp#: 13
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: ccvl
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6
Sublist: chrom-6850_A6*sub1

Method: \\Sacchrom\ChromData\A6\20140622-13400.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 24-Jun-2014 15:53:40 Calib Date: 21-Jun-2014 15:39:52
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK007

First Level Reviewer: strumj Date: 22-Jun-2014 14:22:29

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.391	6.391	0.0		4929754	10.0		3522	
108.7 > 90.9	6.377	6.391	-0.014		1528828		3.22(2.30-3.80)	2381	
2 Perchlorate									
98.7 > 82.8	6.391	6.405	-0.014	1.000	246682	0.4747		306	
100.7 > 84.9	6.391	6.405	-0.014	1.000	83054		2.97(2.30-3.80)	150	

Report Date: 24-Jun-2014 15:53:40 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_015.d

Injection Date: 21-Jun-2014 16:27:49 Instrument ID: A6

Lims ID: CCVL

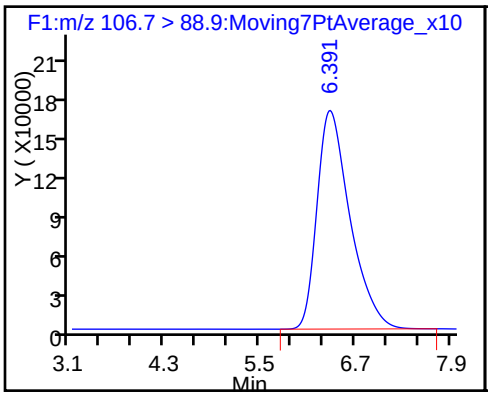
Client ID:

Operator ID: jss ALS Bottle#: 10 Worklist Smp#: 13

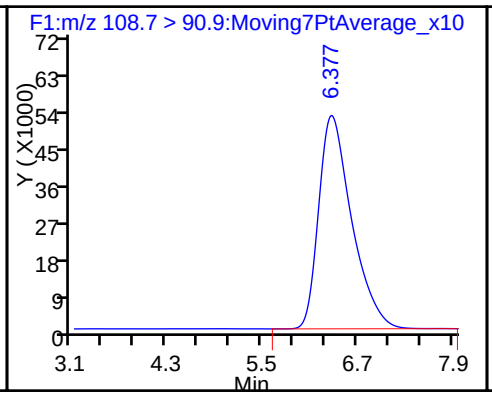
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

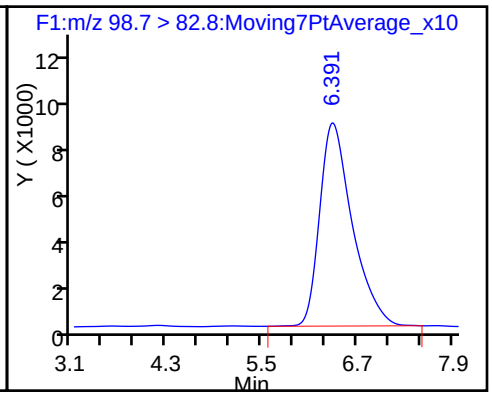
* 1 18-O Perchlorate



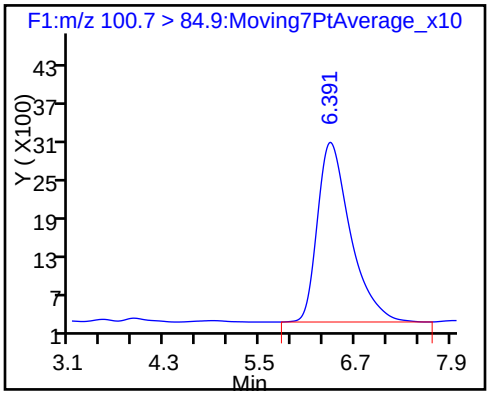
* 1 18-O Perchlorate



2 Perchlorate



2 Perchlorate



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2

SDG No.:

Lab Sample ID: CCV 320-45352/41 Calibration Date: 06/21/2014 22:03

Instrument ID: A6 Calib Start Date: 06/21/2014 14:27

GC Column: Xterra C18 ID: 3.20(mm) Calib End Date: 06/21/2014 15:39

Lab File ID: 21JUN2014b_043.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	1.055	1.128		1.07	1.00	7.0	15.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_043.d
Lims ID: CCV L4
Client ID:
Sample Type: CCV
Inject. Date: 21-Jun-2014 22:03:25 ALS Bottle#: 7 Worklist Smp#: 41
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: ccv L4
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6
Sublist: chrom-6850_A6*sub1

Method: \\Sacchrom\ChromData\A6\20140622-13400.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 24-Jun-2014 15:53:51 Calib Date: 21-Jun-2014 15:39:52
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK007

First Level Reviewer: strumj Date: 22-Jun-2014 14:24:46

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.391	6.391	0.0		4380883	10.0		37120	
108.7 > 90.9	6.377	6.391	-0.014		1346442		3.25(2.30-3.80)	5040	
2 Perchlorate									
98.7 > 82.8	6.391	6.405	-0.014	1.000	493962	1.07		1669	
100.7 > 84.9	6.391	6.405	-0.014	1.000	140750		3.51(2.30-3.80)	2413	

Report Date: 24-Jun-2014 15:53:51 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_043.d

Injection Date: 21-Jun-2014 22:03:25 Instrument ID: A6

Lims ID: CCV L4

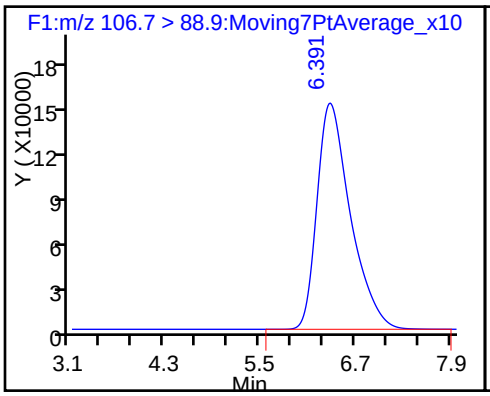
Client ID:

Operator ID: jss ALS Bottle#: 7 Worklist Smp#: 41

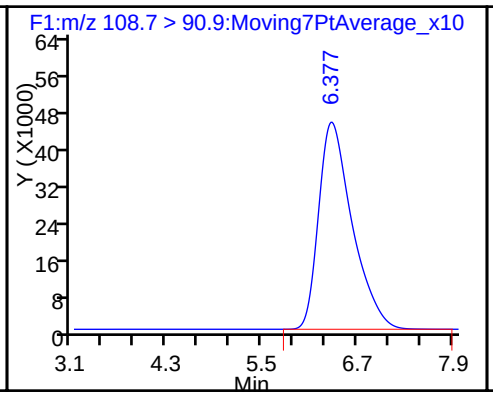
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

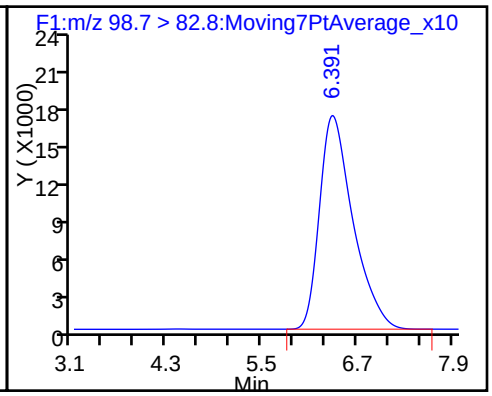
* 1 18-O Perchlorate



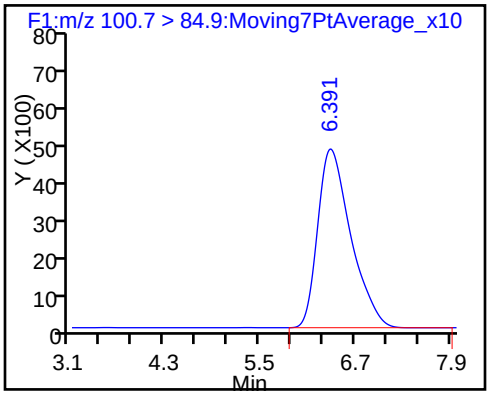
* 1 18-O Perchlorate



2 Perchlorate



2 Perchlorate



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2

SDG No.:

Lab Sample ID: CCV 320-45352/55 Calibration Date: 06/22/2014 00:51

Instrument ID: A6 Calib Start Date: 06/21/2014 14:27

GC Column: Xterra C18 ID: 3.20(mm) Calib End Date: 06/21/2014 15:39

Lab File ID: 21JUN2014b_057.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	1.055	1.122		5.32	5.00	6.3	15.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_057.d
Lims ID: CCV L6
Client ID:
Sample Type: CCV
Inject. Date: 22-Jun-2014 00:51:18 ALS Bottle#: 16 Worklist Smp#: 55
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: ccv L6
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6
Sublist: chrom-6850_A6*sub1

Method: \\Sacchrom\ChromData\A6\20140622-13400.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 24-Jun-2014 15:53:56 Calib Date: 21-Jun-2014 15:39:52
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK007

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.405	6.391	0.014		4293688	10.0		4700	
108.7 > 90.9	6.391	6.391	0.0		1293967		3.32(2.30-3.80)	1228	
2 Perchlorate									
98.7 > 82.8	6.405	6.405	0.0	1.000	2406256	5.32		2381	
100.7 > 84.9	6.405	6.405	0.0	1.000	770274		3.12(2.30-3.80)	1074	

Report Date: 24-Jun-2014 15:53:56 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_057.d

Injection Date: 22-Jun-2014 00:51:18 Instrument ID: A6

Lims ID: CCV L6

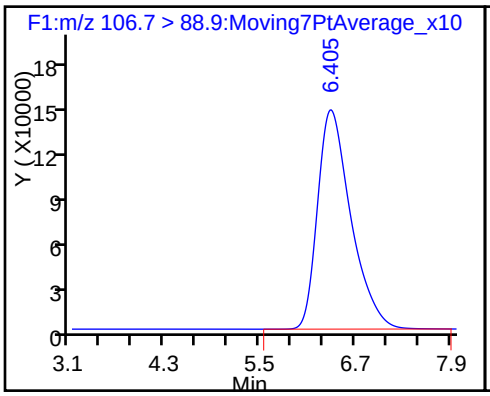
Client ID:

Operator ID: jss ALS Bottle#: 16 Worklist Smp#: 55

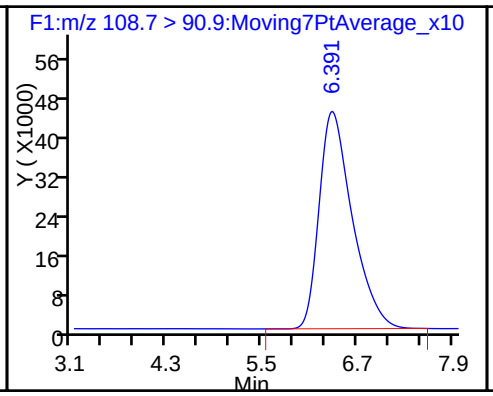
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

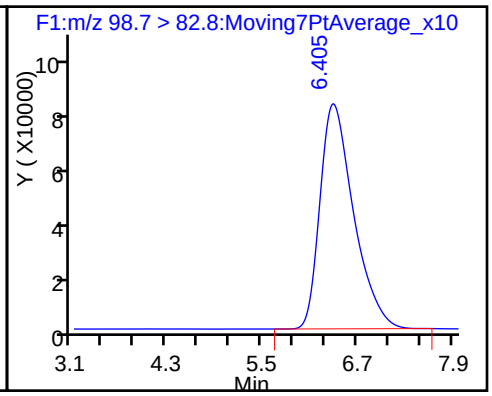
* 1 18-O Perchlorate



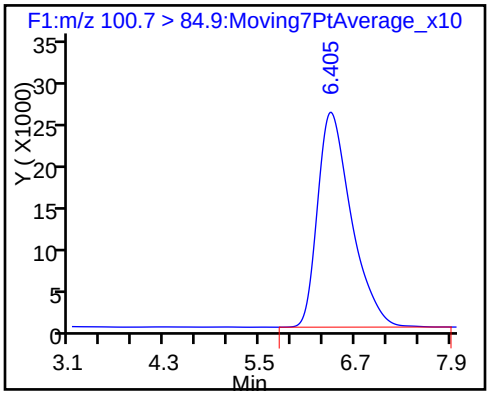
* 1 18-O Perchlorate



2 Perchlorate



2 Perchlorate



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2

SDG No.:

Lab Sample ID: CCV 320-45352/68 Calibration Date: 06/22/2014 03:27

Instrument ID: A6 Calib Start Date: 06/21/2014 14:27

GC Column: Xterra C18 ID: 3.20(mm) Calib End Date: 06/21/2014 15:39

Lab File ID: 21JUN2014b_070.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	1.055	1.074		1.02	1.00	1.8	15.0

FORM VII 6850

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_070.d
Lims ID: CCV L4
Client ID:
Sample Type: CCV
Inject. Date: 22-Jun-2014 03:27:25 ALS Bottle#: 7 Worklist Smp#: 68
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: ccv L4
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6
Sublist: chrom-6850_A6*sub1

Method: \\Sacchrom\ChromData\A6\20140622-13400.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 24-Jun-2014 15:54:01 Calib Date: 21-Jun-2014 15:39:52
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK007

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.391	6.391	0.0		4956006	10.0		12070	
108.7 > 90.9	6.391	6.391	0.0		1521370		3.26(2.30-3.80)	5190	
2 Perchlorate									
98.7 > 82.8	6.405	6.405	0.0	1.002	531775	1.02		2311	
100.7 > 84.9	6.391	6.405	-0.014	1.000	161138		3.30(2.30-3.80)	820	

Report Date: 24-Jun-2014 15:54:01 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_070.d

Injection Date: 22-Jun-2014 03:27:25 Instrument ID: A6

Lims ID: CCV L4

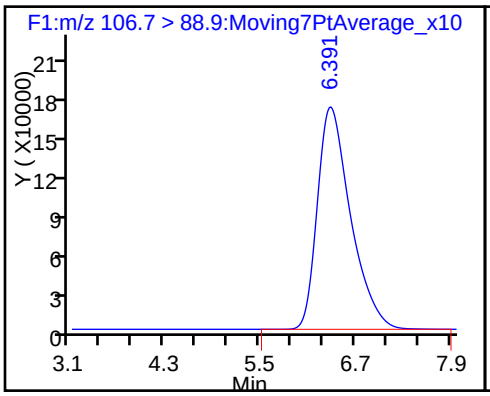
Client ID:

Operator ID: jss ALS Bottle#: 7 Worklist Smp#: 68

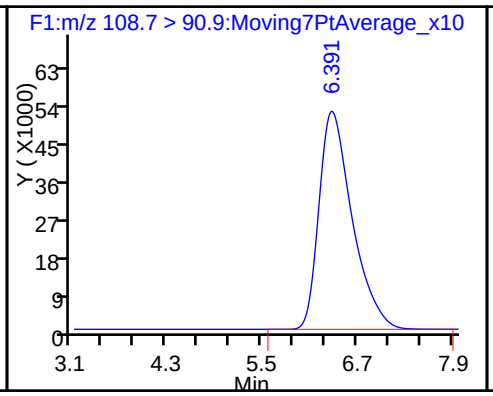
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

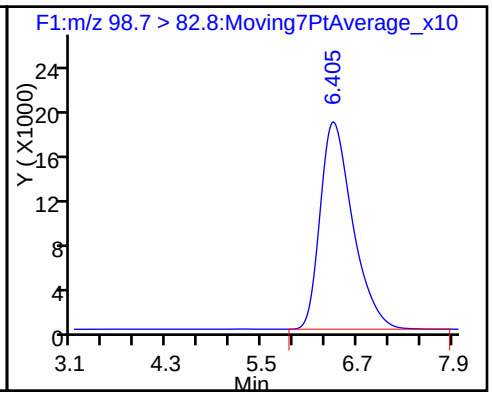
* 1 18-O Perchlorate



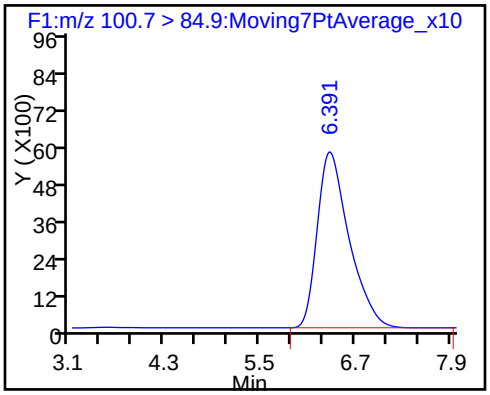
* 1 18-O Perchlorate



2 Perchlorate



2 Perchlorate



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2

SDG No.:

Lab Sample ID: CCVL 320-45352/69 Calibration Date: 06/22/2014 03:39

Instrument ID: A6 Calib Start Date: 06/21/2014 14:27

GC Column: Xterra C18 ID: 3.20(mm) Calib End Date: 06/21/2014 15:39

Lab File ID: 21JUN2014b_071.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	1.055	1.090		0.517	0.500	3.3	50.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_071.d
Lims ID: CCVL
Client ID:
Sample Type: CCVL
Inject. Date: 22-Jun-2014 03:39:26 ALS Bottle#: 6 Worklist Smp#: 69
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: ccvl
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6
Sublist: chrom-6850_A6*sub1

Method: \\Sacchrom\ChromData\A6\20140622-13400.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 24-Jun-2014 15:54:02 Calib Date: 21-Jun-2014 15:39:52
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK007

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.405	6.391	0.014		4686516	10.0		8450	
108.7 > 90.9	6.391	6.391	0.0		1479753		3.17(2.30-3.80)	3912	
2 Perchlorate									
98.7 > 82.8	6.405	6.405	0.0	1.000	255205	0.5166		423	
100.7 > 84.9	6.405	6.405	0.0	1.000	84003		3.04(2.30-3.80)	174	

Report Date: 24-Jun-2014 15:54:02 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_071.d

Injection Date: 22-Jun-2014 03:39:26 Instrument ID: A6

Lims ID: CCVL

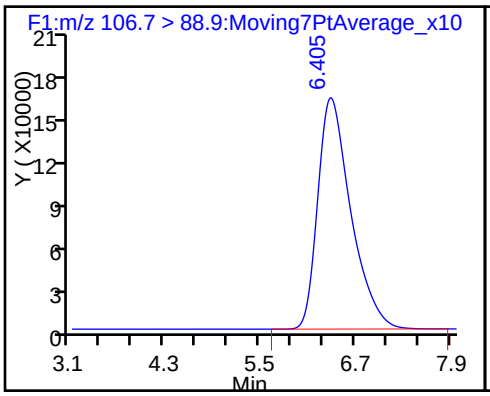
Client ID:

Operator ID: jss ALS Bottle#: 6 Worklist Smp#: 69

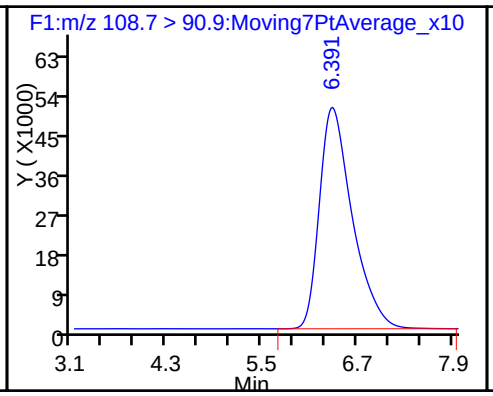
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

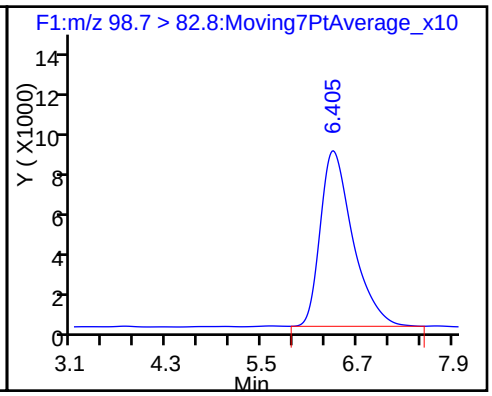
* 1 18-O Perchlorate



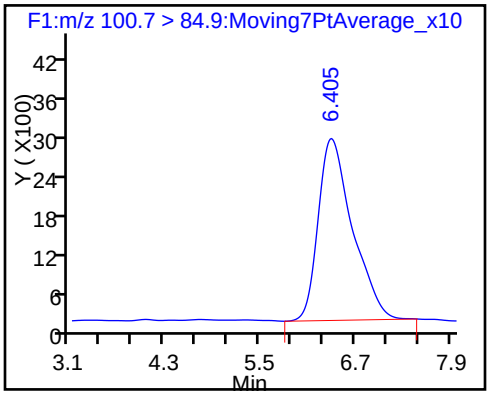
* 1 18-O Perchlorate



2 Perchlorate



2 Perchlorate



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2

SDG No.:

Lab Sample ID: ICV 320-45355/11 Calibration Date: 06/22/2014 12:25

Instrument ID: A6 Calib Start Date: 06/22/2014 10:49

GC Column: Xterra C18 ID: 3.20(mm) Calib End Date: 06/22/2014 12:01

Lab File ID: 22JUN2014a_013.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	1.096	1.084		4.95	5.00	-1.1	15.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_013.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 22-Jun-2014 12:25:38 ALS Bottle#: 15 Worklist Smp#: 11
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: icv
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6
Sublist:

Method: \\Sacchrom\ChromData\A6\20140622-13401.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 24-Jun-2014 15:55:34 Calib Date: 22-Jun-2014 12:01:35
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK007

First Level Reviewer: strumj Date: 22-Jun-2014 14:41:43

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.391	6.391	0.0		4655944	10.0		25804	
108.7 > 90.9	6.391	6.391	0.0		1455737		3.20(2.30-3.80)	9718	
2 Perchlorate									M
98.7 > 82.8	6.391	6.405	-0.014	1.000	2521476	4.95		2278	M
100.7 > 84.9	6.405	6.405	0.0	1.002	817827		3.08(2.30-3.80)	2506	

QC Flag Legend

Review Flags
M - Manually Integrated

Report Date: 24-Jun-2014 15:55:34 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_013.d

Injection Date: 22-Jun-2014 12:25:38 Instrument ID: A6

Lims ID: ICV

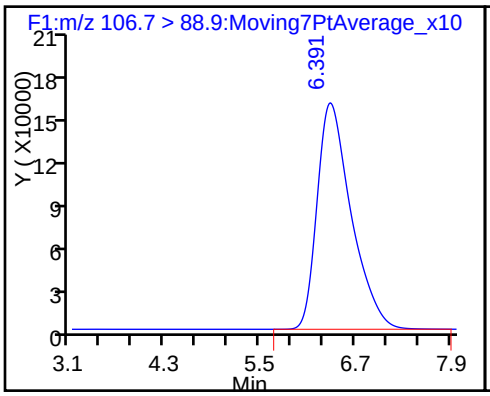
Client ID:

Operator ID: jss ALS Bottle#: 15 Worklist Smp#: 11

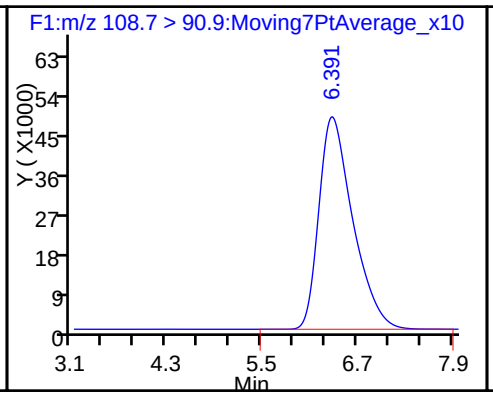
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

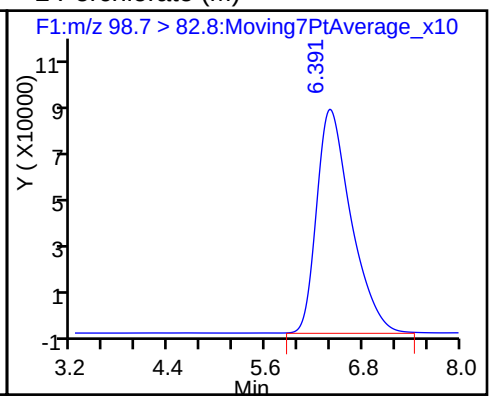
* 1 18-O Perchlorate



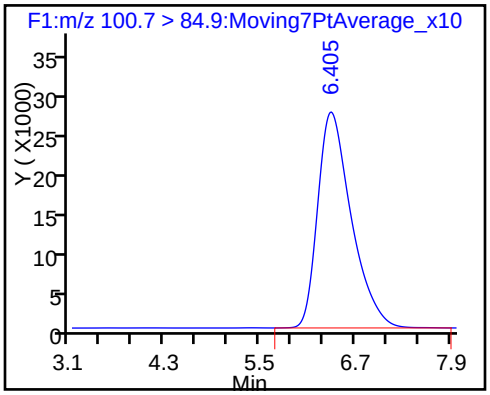
* 1 18-O Perchlorate



2 Perchlorate (M)



2 Perchlorate



Manual Integration/User Assign Peak Report

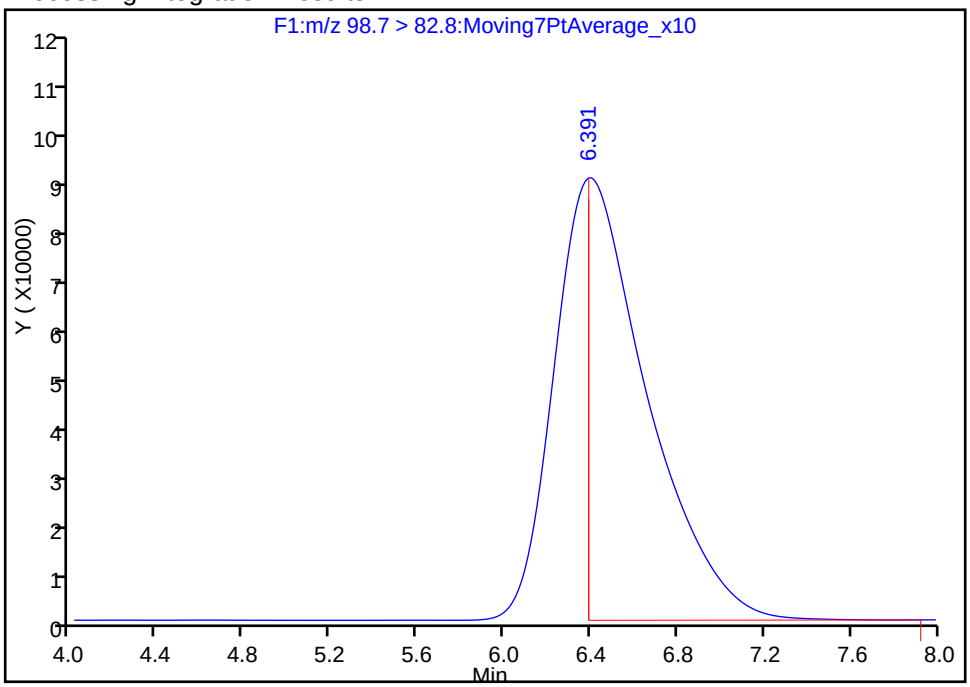
TestAmerica Sacramento

Data File:	\\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_013.d				
Injection Date:	22-Jun-2014 12:25:38	Instrument ID:	A6		
Lims ID:	ICV				
Client ID:					
Operator ID:	jss	ALS Bottle#:	15	Worklist Smp#:	11
Injection Vol:	150.0 ul	Dil. Factor:	1.0000		
Method:	6850_A6	Limit Group:	LC 6850 ICAL		
Column:		Detector	F1:MRM		

2 Perchlorate, CAS: 14797-73-0

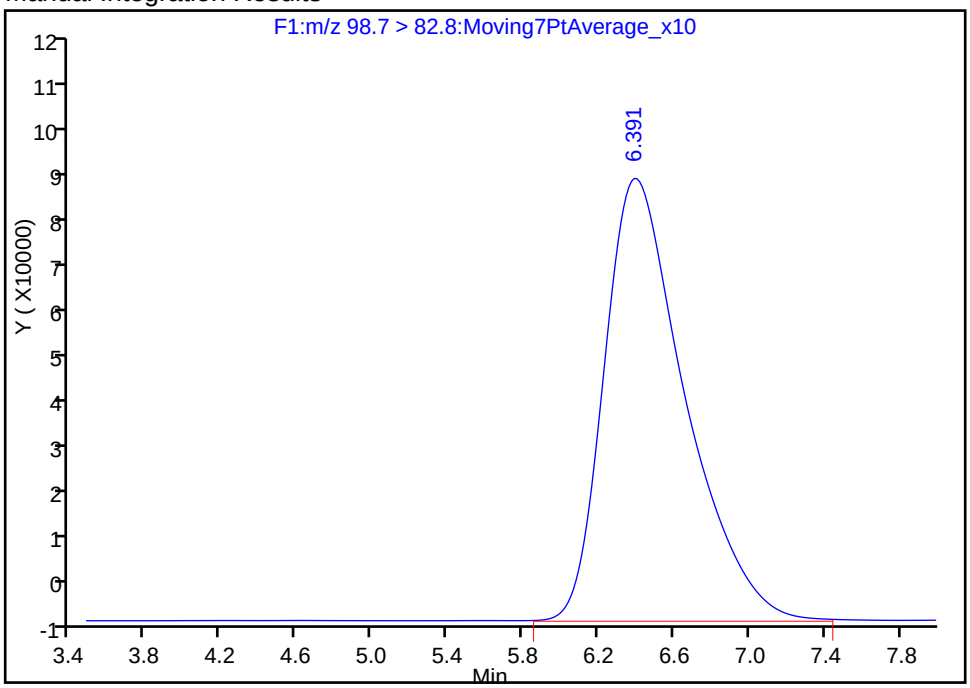
Processing Integration Results

RT: 6.39
Response: 1586510
Amount: 2.994452



Manual Integration Results

RT: 6.39
Response: 2521476
Amount: 4.945530



Reviewer: strumj, 22-Jun-2014 14:41:43
Audit Action: Manually Integrated
Audit Reason: Peak Not Integrated

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2

SDG No.:

Lab Sample ID: CCVL 320-45355/13 Calibration Date: 06/22/2014 12:49

Instrument ID: A6 Calib Start Date: 06/22/2014 10:49

GC Column: Xterra C18 ID: 3.20(mm) Calib End Date: 06/22/2014 12:01

Lab File ID: 22JUN2014a_015.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	1.096	1.106		0.505	0.500	0.9	50.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_015.d
Lims ID: CCVL
Client ID:
Sample Type: CCVL
Inject. Date: 22-Jun-2014 12:49:40 ALS Bottle#: 10 Worklist Smp#: 13
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: ccvl
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6
Sublist: chrom-6850_A6*sub1

Method: \\Sacchrom\ChromData\A6\20140622-13401.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 24-Jun-2014 15:55:35 Calib Date: 22-Jun-2014 12:01:35
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK007

First Level Reviewer: strumj Date: 22-Jun-2014 14:42:23

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.391	6.391	0.0		4892225	10.0		7505	
108.7 > 90.9	6.391	6.391	0.0		1510232		3.24(2.30-3.80)	1482	
2 Perchlorate									
98.7 > 82.8	6.405	6.405	0.0	1.002	270383	0.5047		511	
100.7 > 84.9	6.391	6.405	-0.014	1.000	93130		2.90(2.30-3.80)	146	

Report Date: 24-Jun-2014 15:55:35 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_015.d

Injection Date: 22-Jun-2014 12:49:40 Instrument ID: A6

Lims ID: CCVL

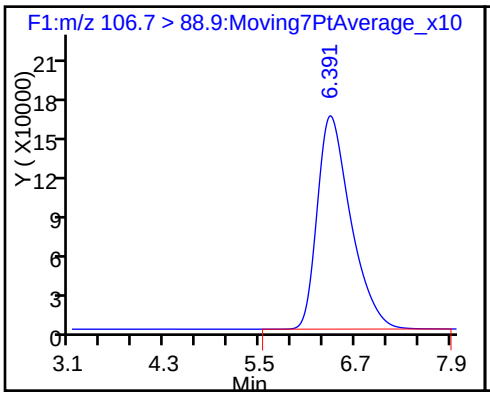
Client ID:

Operator ID: jss ALS Bottle#: 10 Worklist Smp#: 13

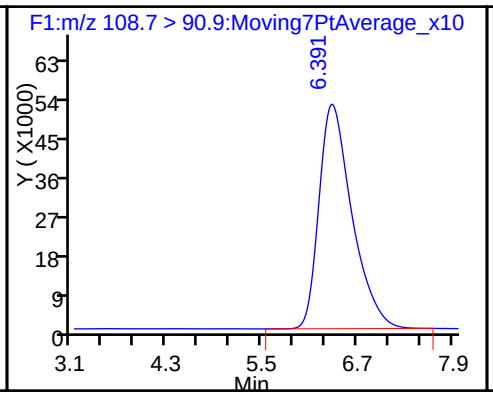
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

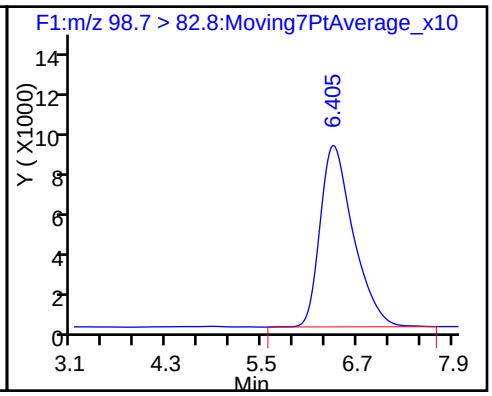
* 1 18-O Perchlorate



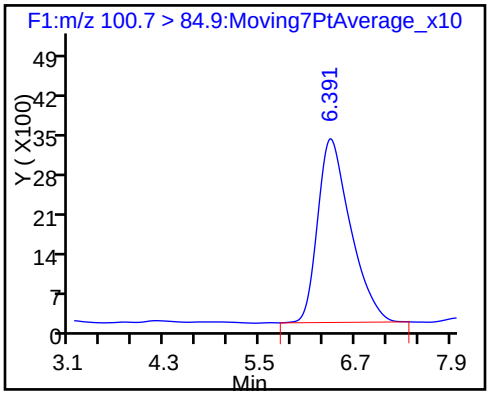
* 1 18-O Perchlorate



2 Perchlorate



2 Perchlorate



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2

SDG No.:

Lab Sample ID: CCV 320-45355/41 Calibration Date: 06/22/2014 19:03

Instrument ID: A6 Calib Start Date: 06/22/2014 10:49

GC Column: Xterra C18 ID: 3.20(mm) Calib End Date: 06/22/2014 12:01

Lab File ID: 22JUN2014a_047.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	1.096	0.997		0.910	1.00	-9.0	15.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_047.d
Lims ID: CCV L4
Client ID:
Sample Type: CCV
Inject. Date: 22-Jun-2014 19:03:51 ALS Bottle#: 7 Worklist Smp#: 41
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: ccv L4
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6
Sublist: chrom-6850_A6*sub1

Method: \\Sacchrom\ChromData\A6\20140622-13401.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 24-Jun-2014 15:55:46 Calib Date: 22-Jun-2014 12:01:35
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK007

First Level Reviewer: strumj Date: 23-Jun-2014 07:21:59

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.391	6.391	0.0		4314702	10.0		6077	
108.7 > 90.9	6.391	6.391	0.0		1331385		3.24(2.30-3.80)	2441	
2 Perchlorate									
98.7 > 82.8	6.405	6.405	0.0	1.002	430086	0.9103		438	
100.7 > 84.9	6.391	6.405	-0.014	1.000	144961		2.97(2.30-3.80)	453	

Report Date: 24-Jun-2014 15:55:46 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_047.d

Injection Date: 22-Jun-2014 19:03:51 Instrument ID: A6

Lims ID: CCV L4

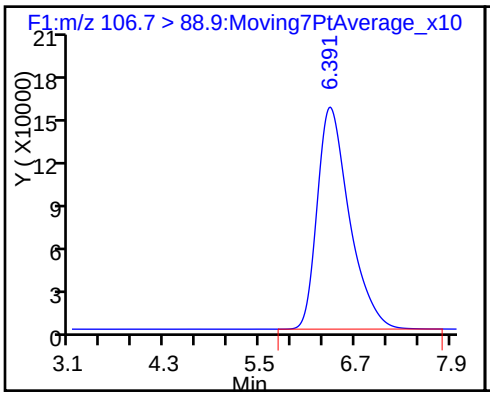
Client ID:

Operator ID: jss ALS Bottle#: 7 Worklist Smp#: 41

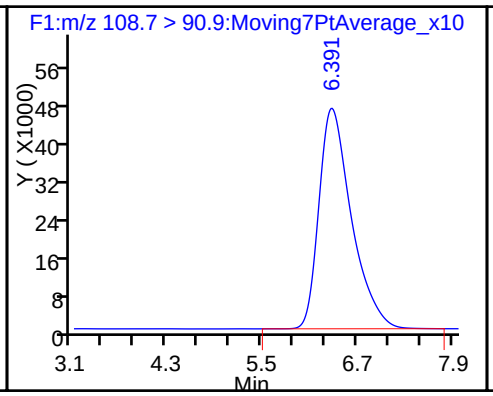
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

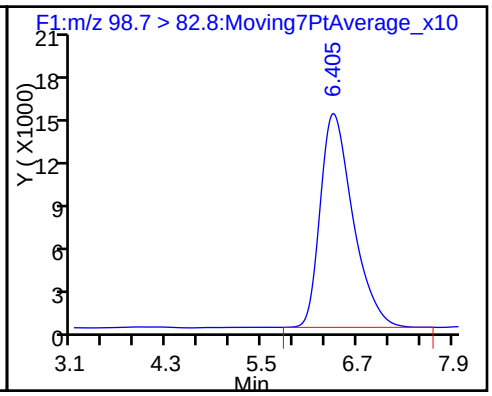
* 1 18-O Perchlorate



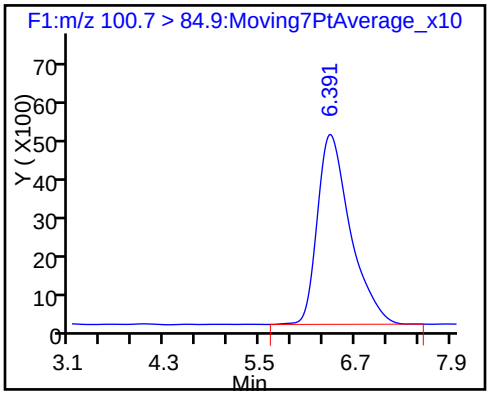
* 1 18-O Perchlorate



2 Perchlorate



2 Perchlorate



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2

SDG No.:

Lab Sample ID: CCV 320-45355/55 Calibration Date: 06/22/2014 22:10

Instrument ID: A6 Calib Start Date: 06/22/2014 10:49

GC Column: Xterra C18 ID: 3.20(mm) Calib End Date: 06/22/2014 12:01

Lab File ID: 22JUN2014a_063.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	1.096	1.093		4.99	5.00	-0.3	15.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_063.d
Lims ID: CCV L6
Client ID:
Sample Type: CCV
Inject. Date: 22-Jun-2014 22:10:54 ALS Bottle#: 16 Worklist Smp#: 55
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: ccv L6
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6
Sublist: chrom-6850_A6*sub1

Method: \\Sacchrom\ChromData\A6\20140622-13401.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 24-Jun-2014 15:55:52 Calib Date: 22-Jun-2014 12:01:35
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK007

First Level Reviewer: strumj Date: 23-Jun-2014 07:22:24

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.391	6.391	0.0		2923801	10.0		4204	
108.7 > 90.9	6.391	6.391	0.0		893621		3.27(2.30-3.80)	2042	
2 Perchlorate									
98.7 > 82.8	6.405	6.405	0.0	1.002	1596497	4.99		2410	
100.7 > 84.9	6.391	6.405	-0.014	1.000	516295		3.09(2.30-3.80)	914	

Report Date: 24-Jun-2014 15:55:52 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_063.d

Injection Date: 22-Jun-2014 22:10:54 Instrument ID: A6

Lims ID: CCV L6

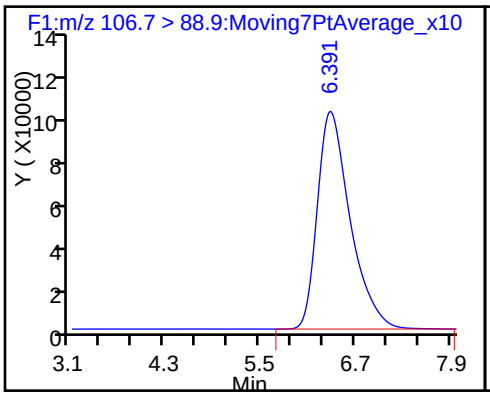
Client ID:

Operator ID: jss ALS Bottle#: 16 Worklist Smp#: 55

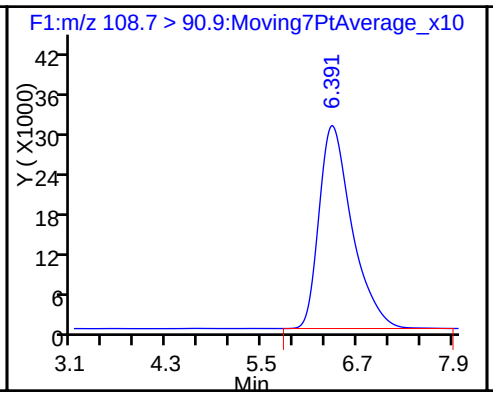
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

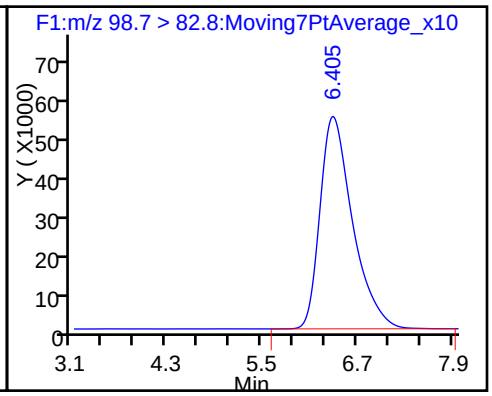
* 1 18-O Perchlorate



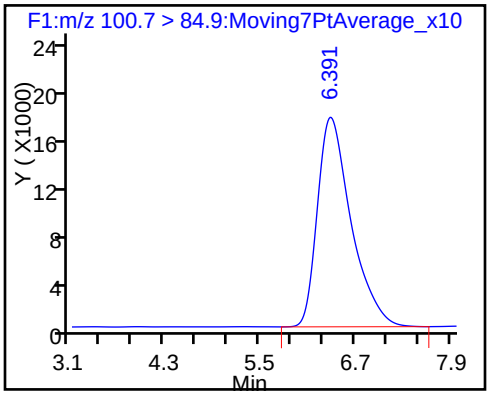
* 1 18-O Perchlorate



2 Perchlorate



2 Perchlorate



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2

SDG No.:

Lab Sample ID: CCV 320-45355/68 Calibration Date: 06/23/2014 01:06

Instrument ID: A6 Calib Start Date: 06/22/2014 10:49

GC Column: Xterra C18 ID: 3.20(mm) Calib End Date: 06/22/2014 12:01

Lab File ID: 22JUN2014a_078.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	1.096	1.133		1.03	1.00	3.4	15.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_078.d
Lims ID: CCV L4
Client ID:
Sample Type: CCV
Inject. Date: 23-Jun-2014 01:06:08 ALS Bottle#: 7 Worklist Smp#: 68
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: ccv L4
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6
Sublist: chrom-6850_A6*sub1

Method: \\Sacchrom\ChromData\A6\20140622-13401.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 24-Jun-2014 15:55:58 Calib Date: 22-Jun-2014 12:01:35
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK007

First Level Reviewer: strumj Date: 23-Jun-2014 07:22:33

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.391	6.391	0.0		3860332	10.0		5796	
108.7 > 90.9	6.391	6.391	0.0		1212201		3.18(2.30-3.80)	4633	
2 Perchlorate									
98.7 > 82.8	6.405	6.405	0.0	1.002	436952	1.03		573	
100.7 > 84.9	6.405	6.405	0.0	1.002	138645		3.15(2.30-3.80)	165	

Report Date: 24-Jun-2014 15:55:58 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_078.d

Injection Date: 23-Jun-2014 01:06:08 Instrument ID: A6

Lims ID: CCV L4

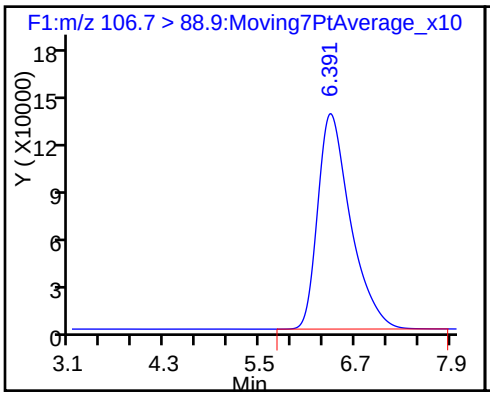
Client ID:

Operator ID: jss ALS Bottle#: 7 Worklist Smp#: 68

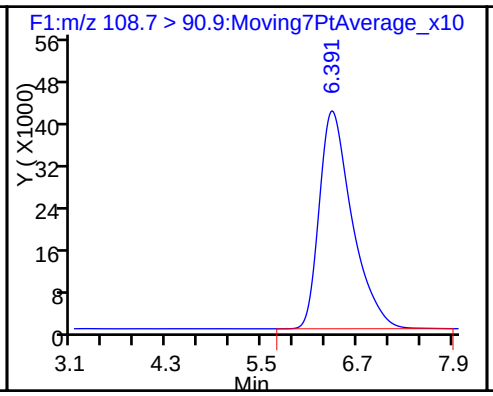
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

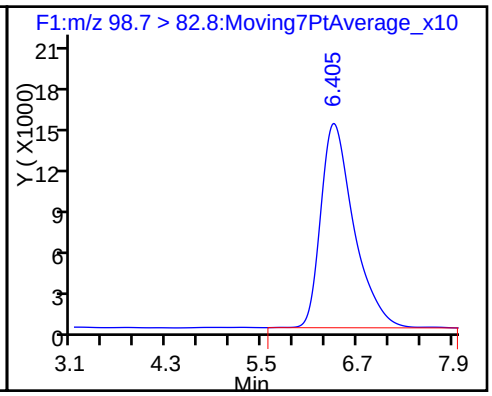
* 1 18-O Perchlorate



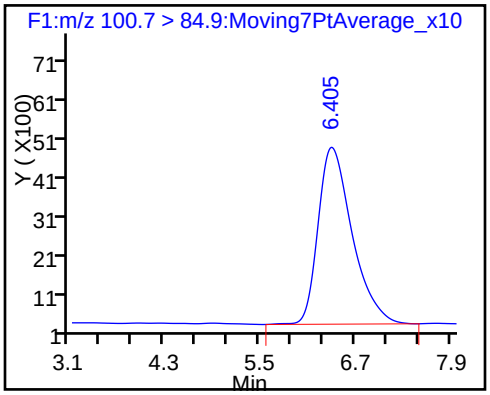
* 1 18-O Perchlorate



2 Perchlorate



2 Perchlorate



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2

SDG No.:

Lab Sample ID: CCVL 320-45355/69 Calibration Date: 06/23/2014 01:18

Instrument ID: A6 Calib Start Date: 06/22/2014 10:49

GC Column: Xterra C18 ID: 3.20(mm) Calib End Date: 06/22/2014 12:01

Lab File ID: 22JUN2014a_079.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	1.096	1.070		0.488	0.500	-2.4	50.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_079.d
Lims ID: CCVL
Client ID:
Sample Type: CCVL
Inject. Date: 23-Jun-2014 01:18:10 ALS Bottle#: 6 Worklist Smp#: 69
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: ccvl
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6
Sublist: chrom-6850_A6*sub1

Method: \\Sacchrom\ChromData\A6\20140622-13401.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 24-Jun-2014 15:55:58 Calib Date: 22-Jun-2014 12:01:35
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK007

First Level Reviewer: strumj Date: 23-Jun-2014 07:22:43

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.405	6.391	0.014		4285930	10.0		4905	
108.7 > 90.9	6.405	6.391	0.014		1341469		3.19(2.30-3.80)	3007	
2 Perchlorate									
98.7 > 82.8	6.419	6.405	0.014	1.002	229150	0.4882		349	
100.7 > 84.9	6.419	6.405	0.014	1.002	74110		3.09(2.30-3.80)	121	

Report Date: 24-Jun-2014 15:55:58 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_079.d

Injection Date: 23-Jun-2014 01:18:10 Instrument ID: A6

Lims ID: CCVL

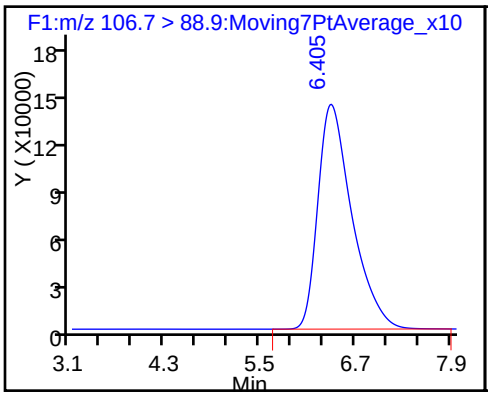
Client ID:

Operator ID: jss ALS Bottle#: 6 Worklist Smp#: 69

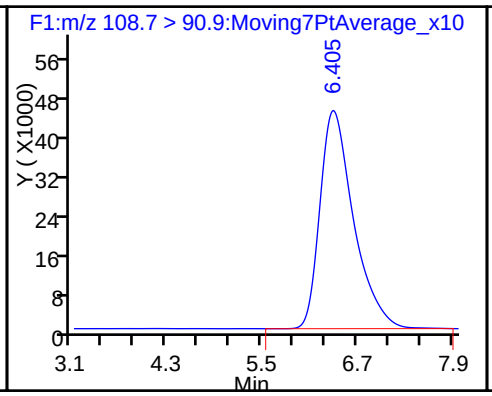
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

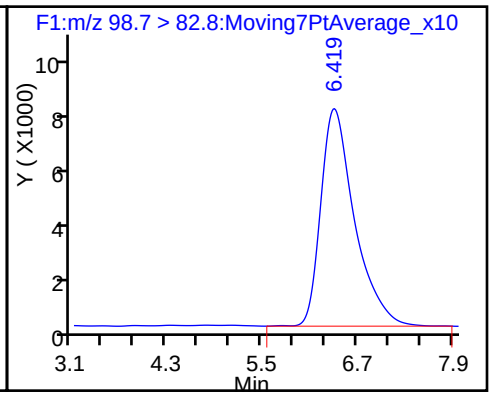
* 1 18-O Perchlorate



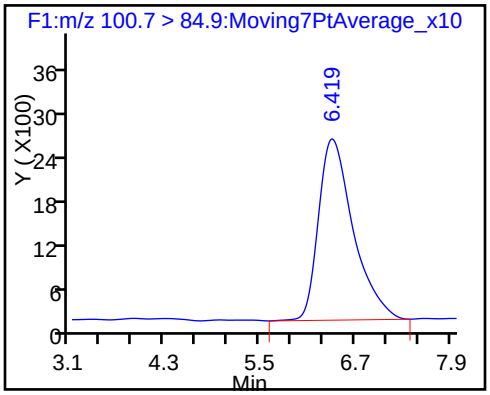
* 1 18-O Perchlorate



2 Perchlorate



2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-7224-2
SDG No.:
Client Sample ID:
Lab Sample ID: MB 320-41554/1-A
Matrix: Solid
Lab File ID: 21JUN2014b_046.d
Analysis Method: 6850
Date Collected:
Extraction Method: SHAKE
Date Extracted: 05/01/2014 10:11
Sample wt/vol: 3.00(g)
Date Analyzed: 06/21/2014 22:39
Con. Extract Vol.: 10.00(mL)
Dilution Factor: 1
Injection Volume: 150(uL)
GC Column: Xterra C18 ID: 3.2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 45352
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	ND		5.0	0.15

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_046.d
Lims ID: MB 320-41554/1-A
Client ID:
Sample Type: MB
Inject. Date: 21-Jun-2014 22:39:22 ALS Bottle#: 22 Worklist Smp#: 44
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: MB 320-41554/1-A
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6

Method: \\Sacchrom\ChromData\A6\20140622-13400.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 24-Jun-2014 15:53:51 Calib Date: 21-Jun-2014 15:39:52
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK007

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.405	6.391	0.014		3986056	10.1		4334	
108.7 > 90.9	6.405	6.391	0.014		1211128		3.29(2.30-3.80)	1633	

Report Date: 24-Jun-2014 15:53:52 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_046.d

Injection Date: 21-Jun-2014 22:39:22 Instrument ID: A6

Lims ID: MB 320-41554/1-A

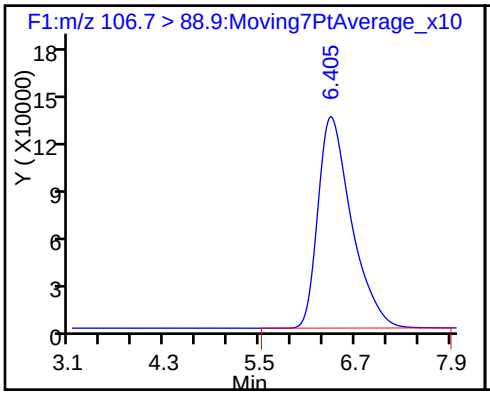
Client ID:

Operator ID: jss ALS Bottle#: 22 Worklist Smp#: 44

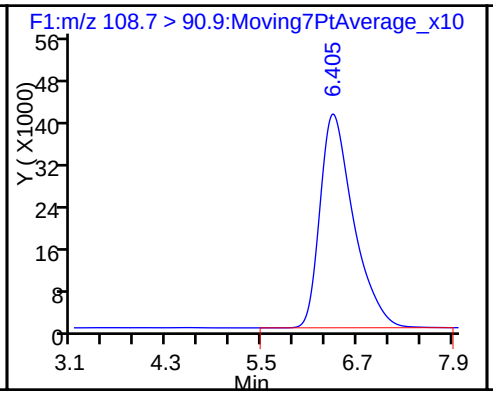
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

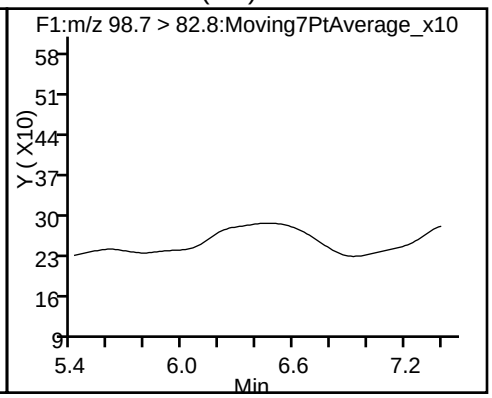
* 1 18-O Perchlorate



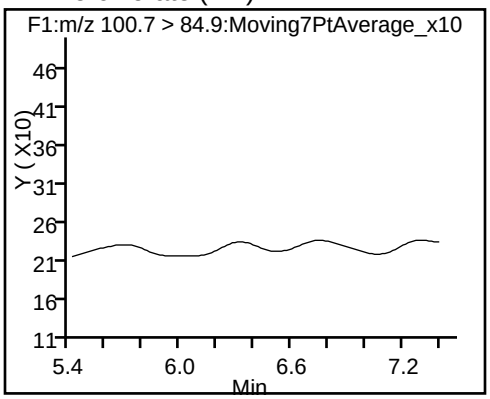
* 1 18-O Perchlorate



2 Perchlorate (ND)



2 Perchlorate (ND)



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-7224-2
SDG No.:
Client Sample ID:
Lab Sample ID: MB 320-41554/1-A
Matrix: Solid
Lab File ID: 22JUN2014a_050.d
Analysis Method: 6850
Date Collected:
Extraction Method: SHAKE
Date Extracted: 05/01/2014 10:11
Sample wt/vol: 3.00(g)
Date Analyzed: 06/22/2014 19:39
Con. Extract Vol.: 10.00(mL)
Dilution Factor: 1
Injection Volume: 150(uL)
GC Column: Xterra C18 ID: 3.2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 45355
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	ND		5.0	0.15

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_050.d
Lims ID: MB 320-41554/1-A
Client ID:
Sample Type: MB
Inject. Date: 22-Jun-2014 19:39:56 ALS Bottle#: 22 Worklist Smp#: 44
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: MB 320-41554/1-A
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6

Method: \\Sacchrom\ChromData\A6\20140622-13401.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 24-Jun-2014 15:55:46 Calib Date: 22-Jun-2014 12:01:35
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK007

First Level Reviewer: strumj Date: 23-Jun-2014 07:24:42

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.391	6.391	0.0		3499703	10.1		3928	
108.7 > 90.9	6.377	6.391	-0.014		1064167		3.29(2.30-3.80)	1034	

Report Date: 24-Jun-2014 15:55:47 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_050.d

Injection Date: 22-Jun-2014 19:39:56 Instrument ID: A6

Lims ID: MB 320-41554/1-A

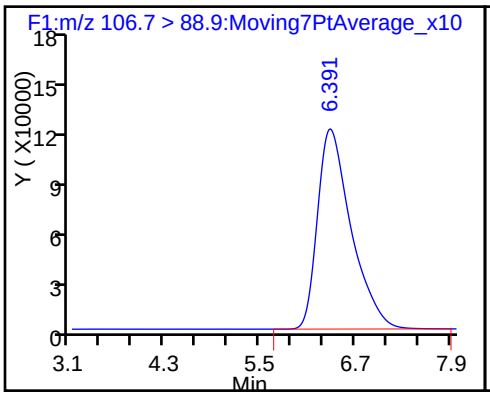
Client ID:

Operator ID: jss ALS Bottle#: 22 Worklist Smp#: 44

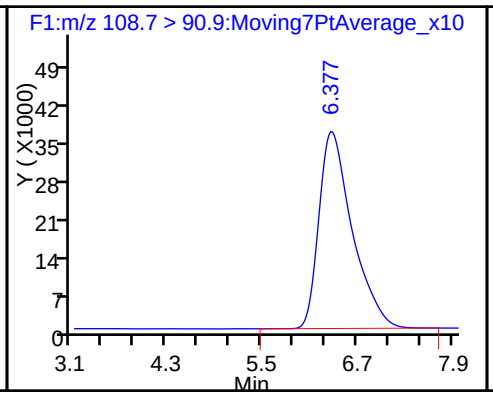
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

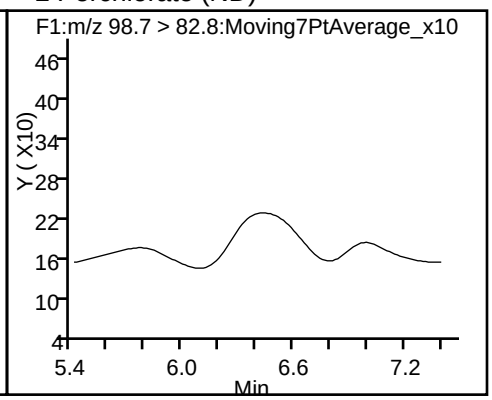
* 1 18-O Perchlorate



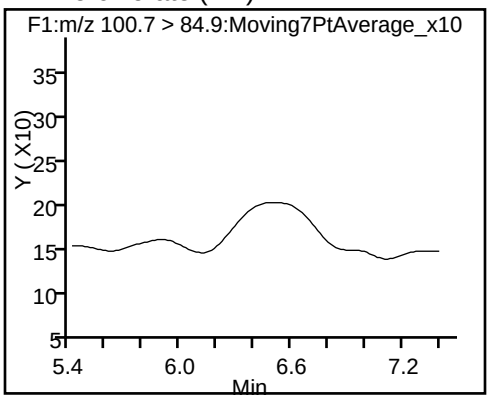
* 1 18-O Perchlorate



2 Perchlorate (ND)



2 Perchlorate (ND)



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-7224-2
SDG No.:
Client Sample ID:
Lab Sample ID: CCB 320-45352/10
Matrix: Solid
Lab File ID: 21JUN2014b_012.d
Analysis Method: 6850
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol:
Date Analyzed: 06/21/2014 15:51
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 1
Injection Volume: 150(uL)
GC Column: Xterra C18 ID: 3.2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 45352
Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	ND		0.50	0.078

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_012.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 21-Jun-2014 15:51:52 ALS Bottle#: 4 Worklist Smp#: 10
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: ccb
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6

Method: \\Sacchrom\ChromData\A6\20140622-13400.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 24-Jun-2014 15:53:10 Calib Date: 21-Jun-2014 15:39:52
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK007

First Level Reviewer: strumj Date: 23-Jun-2014 07:57:50

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.391	6.391	0.0		4872808	10.0		8402	
108.7 > 90.9	6.377	6.391	-0.014		1533114		3.18(2.30-3.80)	1965	

Report Date: 24-Jun-2014 15:53:39 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_012.d

Injection Date: 21-Jun-2014 15:51:52 Instrument ID: A6

Lims ID: CCB

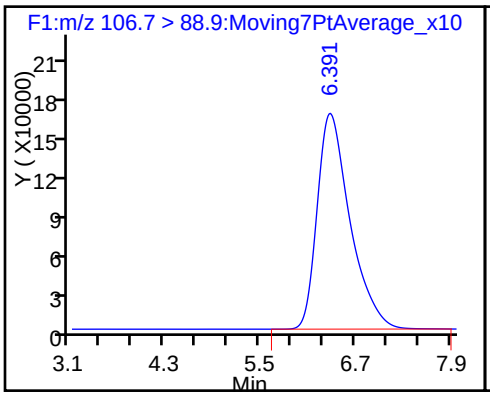
Client ID:

Operator ID: jss ALS Bottle#: 4 Worklist Smp#: 10

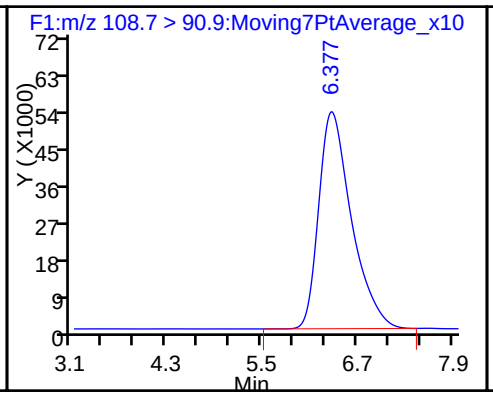
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

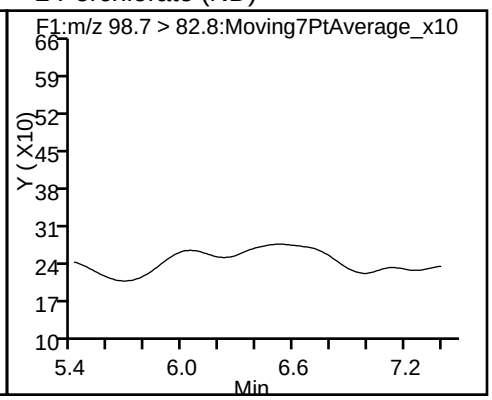
* 1 18-O Perchlorate



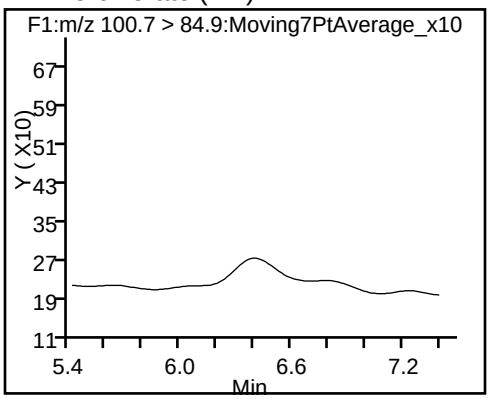
* 1 18-O Perchlorate



2 Perchlorate (ND)



2 Perchlorate (ND)



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-7224-2
SDG No.:
Client Sample ID:
Lab Sample ID: CCB 320-45352/70
Matrix: Solid
Lab File ID: 21JUN2014b_072.d
Analysis Method: 6850
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol:
Date Analyzed: 06/22/2014 03:51
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 1
Injection Volume: 150(uL)
GC Column: Xterra C18 ID: 3.2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 45352
Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	ND		0.50	0.078

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_072.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 22-Jun-2014 03:51:27 ALS Bottle#: 4 Worklist Smp#: 70
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: ccb
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6

Method: \\Sacchrom\ChromData\A6\20140622-13400.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 24-Jun-2014 15:54:02 Calib Date: 21-Jun-2014 15:39:52
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK007

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.391	6.391	0.0		4901108	10.0		6418	
108.7 > 90.9	6.391	6.391	0.0		1518039		3.23(2.30-3.80)	1479	

Report Date: 24-Jun-2014 15:54:02 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_072.d

Injection Date: 22-Jun-2014 03:51:27 Instrument ID: A6

Lims ID: CCB

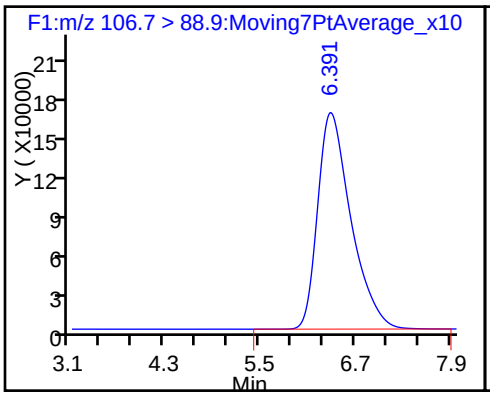
Client ID:

Operator ID: jss ALS Bottle#: 4 Worklist Smp#: 70

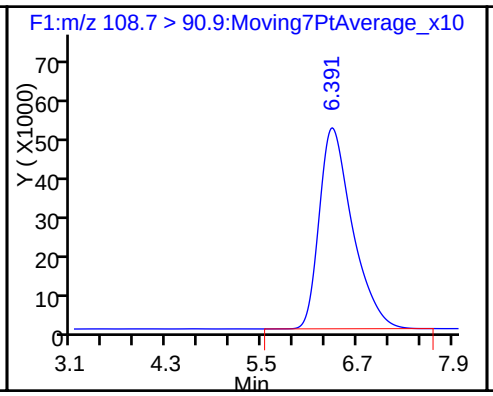
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

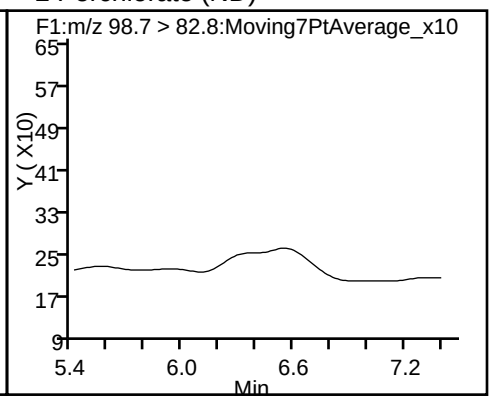
* 1 18-O Perchlorate



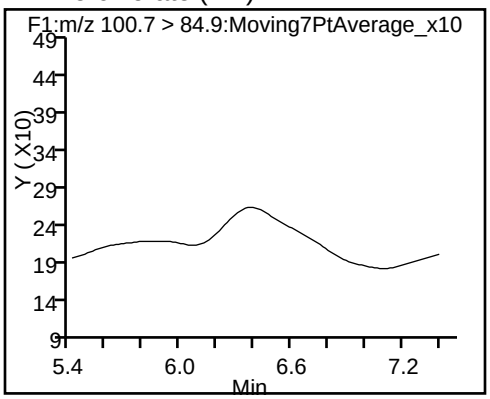
* 1 18-O Perchlorate



2 Perchlorate (ND)



2 Perchlorate (ND)



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-7224-2
SDG No.:
Client Sample ID:
Lab Sample ID: CCB 320-45355/10
Matrix: Solid
Lab File ID: 22JUN2014a_012.d
Analysis Method: 6850
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol:
Date Analyzed: 06/22/2014 12:13
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 1
Injection Volume: 150(uL)
GC Column: Xterra C18 ID: 3.2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 45355
Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	ND		0.50	0.078

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_012.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 22-Jun-2014 12:13:36 ALS Bottle#: 4 Worklist Smp#: 10
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: ccb
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6

Method: \\Sacchrom\ChromData\A6\20140622-13401.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 24-Jun-2014 15:55:15 Calib Date: 22-Jun-2014 12:01:35
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK007

First Level Reviewer: strumj Date: 22-Jun-2014 14:40:46

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.391	6.391	0.0		4682644	10.0		12315	
108.7 > 90.9	6.391	6.391	0.0		1435274		3.26(2.30-3.80)	2160	

Report Date: 24-Jun-2014 15:55:33 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_012.d

Injection Date: 22-Jun-2014 12:13:36 Instrument ID: A6

Lims ID: CCB

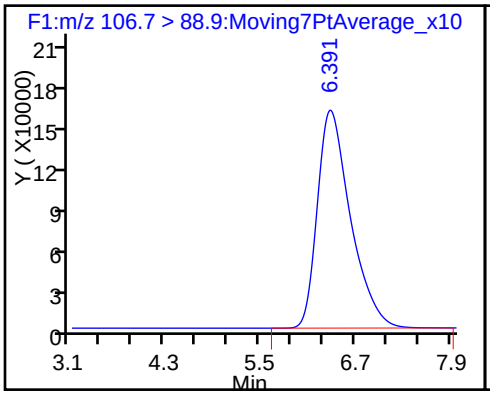
Client ID:

Operator ID: jss ALS Bottle#: 4 Worklist Smp#: 10

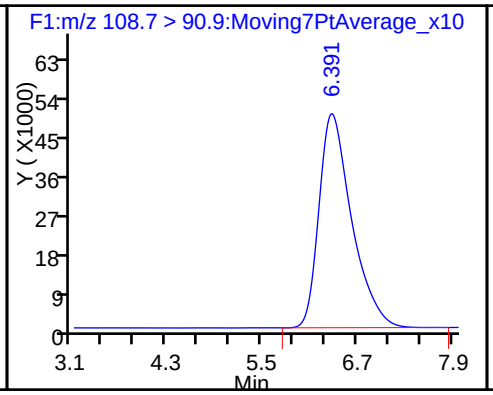
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

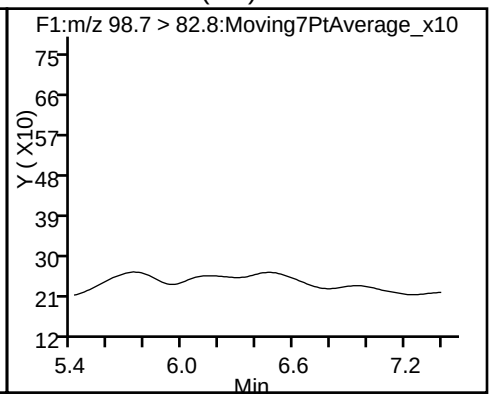
* 1 18-O Perchlorate



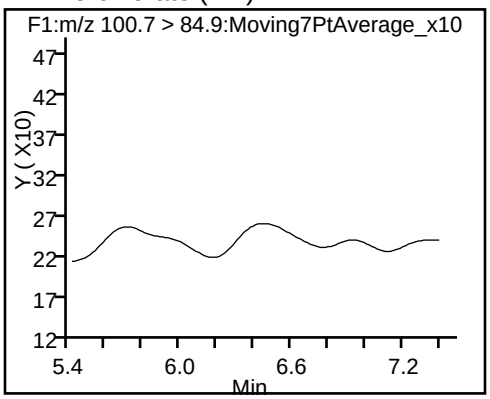
* 1 18-O Perchlorate



2 Perchlorate (ND)



2 Perchlorate (ND)



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-7224-2
SDG No.:
Client Sample ID:
Lab Sample ID: CCB 320-45355/70
Matrix: Solid
Lab File ID: 22JUN2014a_080.d
Analysis Method: 6850
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol:
Date Analyzed: 06/23/2014 01:30
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 1
Injection Volume: 150(uL)
GC Column: Xterra C18 ID: 3.2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 45355
Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	ND		0.50	0.078

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_080.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 23-Jun-2014 01:30:10 ALS Bottle#: 4 Worklist Smp#: 70
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: ccb
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6

Method: \\Sacchrom\ChromData\A6\20140622-13401.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 24-Jun-2014 15:55:58 Calib Date: 22-Jun-2014 12:01:35
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK007

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.405	6.391	0.014		4164293	10.0		7767	
108.7 > 90.9	6.391	6.391	0.0		1261800		3.30(2.30-3.80)	2403	

Report Date: 24-Jun-2014 15:55:59 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_080.d

Injection Date: 23-Jun-2014 01:30:10 Instrument ID: A6

Lims ID: CCB

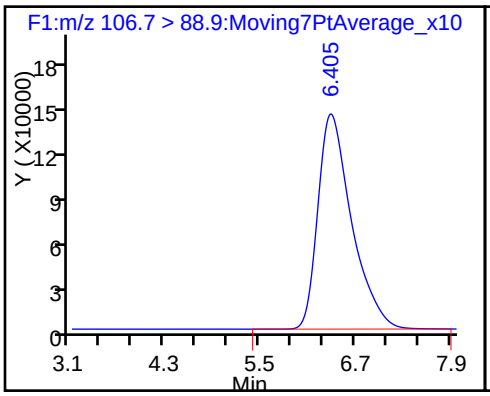
Client ID:

Operator ID: jss ALS Bottle#: 4 Worklist Smp#: 70

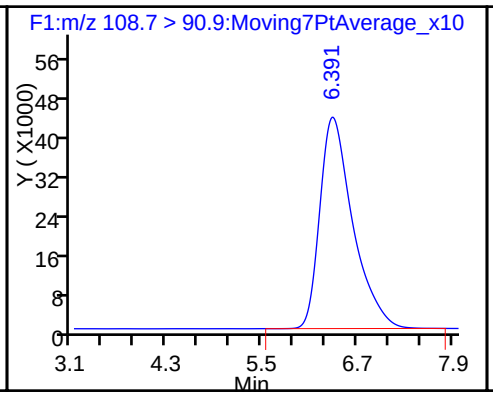
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

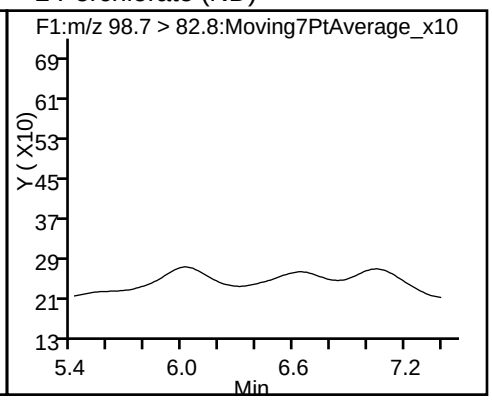
* 1 18-O Perchlorate



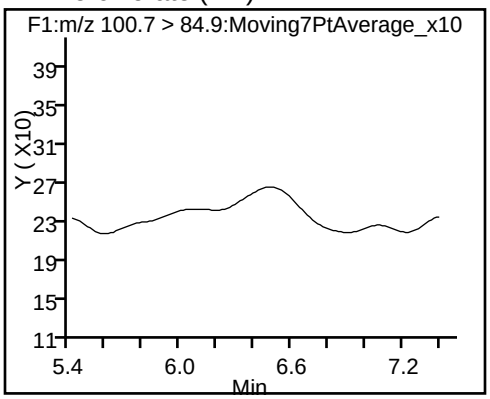
* 1 18-O Perchlorate



2 Perchlorate (ND)



2 Perchlorate (ND)



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-7224-2
SDG No.:
Client Sample ID:
Lab Sample ID: ICB 320-45352/2
Matrix: Solid
Lab File ID: 21JUN2014b_004.d
Analysis Method: 6850
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol:
Date Analyzed: 06/21/2014 14:15
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 1
Injection Volume: 150(uL)
GC Column: Xterra C18 ID: 3.2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 45352
Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	ND		0.50	0.078

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_004.d
Lims ID: ICB
Client ID:
Sample Type: ICB
Inject. Date: 21-Jun-2014 14:15:51 ALS Bottle#: 4 Worklist Smp#: 2
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: ICB
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6

Method: \\Sacchrom\ChromData\A6\20140622-13400.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 24-Jun-2014 15:53:10 Calib Date: 21-Jun-2014 15:39:52
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK007

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.391	6.391	0.0		5576549	10.0		7505	
108.7 > 90.9	6.391	6.391	0.0		1748264		3.19(2.30-3.80)	5435	

Report Date: 24-Jun-2014 15:53:32 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_004.d

Injection Date: 21-Jun-2014 14:15:51 Instrument ID: A6

Lims ID: ICB

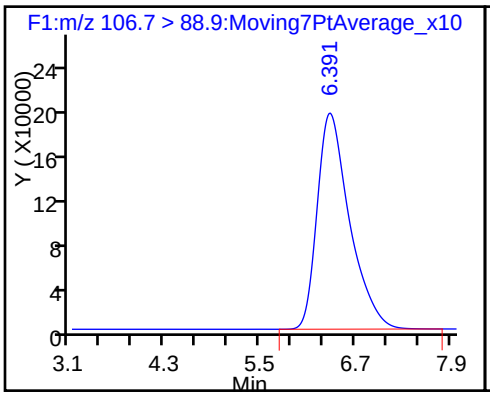
Client ID:

Operator ID: jss ALS Bottle#: 4 Worklist Smp#: 2

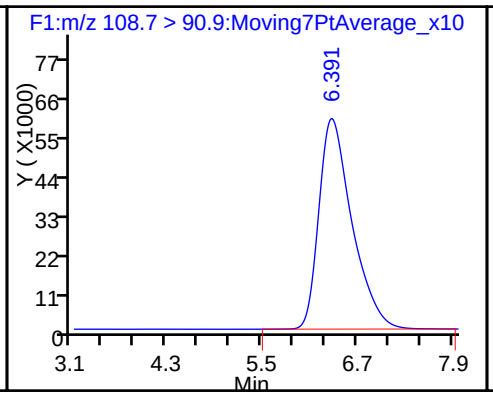
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

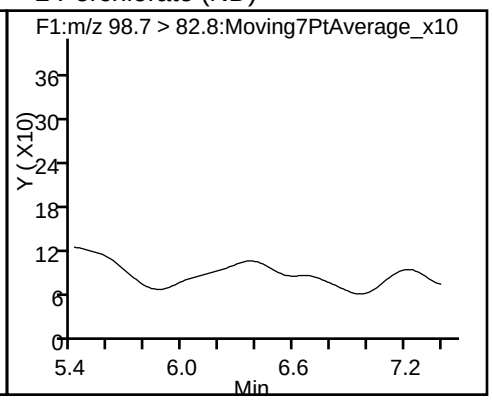
* 1 18-O Perchlorate



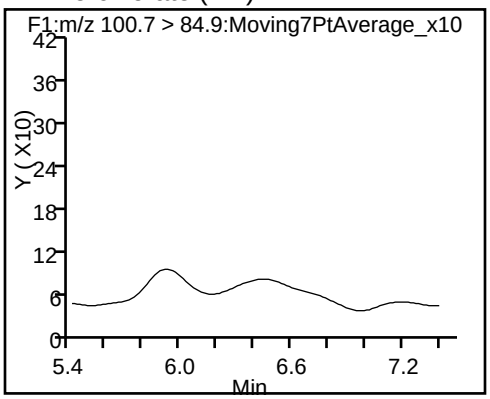
* 1 18-O Perchlorate



2 Perchlorate (ND)



2 Perchlorate (ND)



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-7224-2
SDG No.:
Client Sample ID:
Lab Sample ID: ICB 320-45355/2
Matrix: Solid
Lab File ID: 22JUN2014a_004.d
Analysis Method: 6850
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol:
Date Analyzed: 06/22/2014 10:37
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 1
Injection Volume: 150(uL)
GC Column: Xterra C18 ID: 3.2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 45355
Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	ND		0.50	0.078

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_004.d
Lims ID: ICB
Client ID:
Sample Type: ICB
Inject. Date: 22-Jun-2014 10:37:37 ALS Bottle#: 4 Worklist Smp#: 2
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: ICB
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6

Method: \\Sacchrom\ChromData\A6\20140622-13401.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 24-Jun-2014 15:55:15 Calib Date: 22-Jun-2014 12:01:35
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK007

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.405	6.391	0.014		4958381	10.0		5545	
108.7 > 90.9	6.377	6.391	-0.014		1518002		3.27(2.30-3.80)	5117	

Report Date: 24-Jun-2014 15:55:27 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_004.d

Injection Date: 22-Jun-2014 10:37:37 Instrument ID: A6

Lims ID: ICB

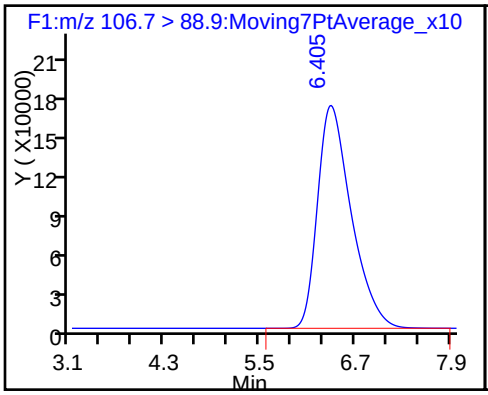
Client ID:

Operator ID: jss ALS Bottle#: 4 Worklist Smp#: 2

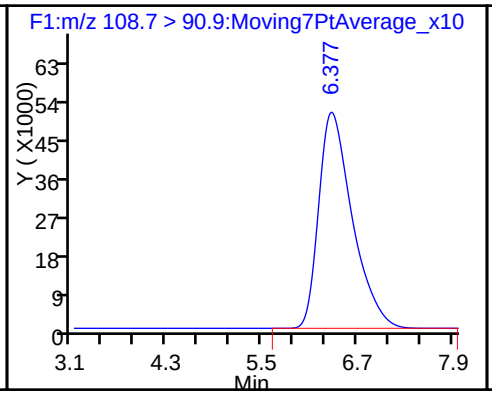
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

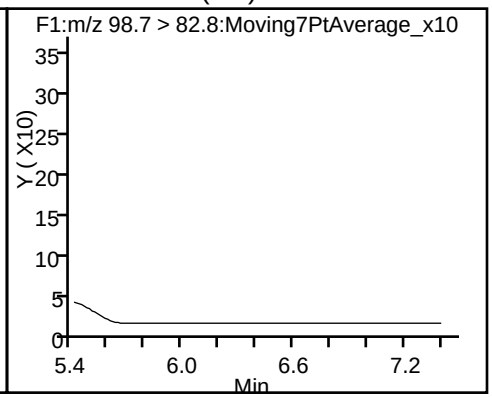
* 1 18-O Perchlorate



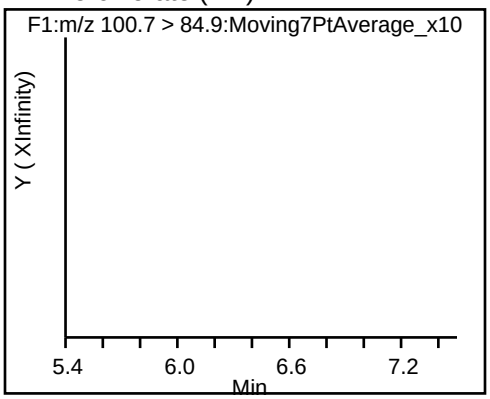
* 1 18-O Perchlorate



2 Perchlorate (ND)



2 Perchlorate (ND)



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-7224-2
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 320-41554/2-A
Matrix: Solid
Lab File ID: 21JUN2014b_047.d
Analysis Method: 6850
Date Collected:
Extraction Method: SHAKE
Date Extracted: 05/01/2014 10:11
Sample wt/vol: 3.00(g)
Date Analyzed: 06/21/2014 22:51
Con. Extract Vol.: 10.00(mL)
Dilution Factor: 1
Injection Volume: 150(uL)
GC Column: Xterra C18 ID: 3.2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 45352
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	51.0		5.0	0.15

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_047.d
Lims ID: LCS 320-41554/2-A
Client ID:
Sample Type: LCS
Inject. Date: 21-Jun-2014 22:51:25 ALS Bottle#: 23 Worklist Smp#: 45
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: LCS 320-41554/2-A
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6

Method: \\Sacchrom\ChromData\A6\20140622-13400.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 24-Jun-2014 15:53:51 Calib Date: 21-Jun-2014 15:39:52
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK007

First Level Reviewer: strumj Date: 22-Jun-2014 14:37:45

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.405	6.391	0.014		3994746	10.1		5759	
108.7 > 90.9	6.391	6.391	0.0		1243070		3.21(2.30-3.80)	1453	
2 Perchlorate									M
98.7 > 82.8	6.405	6.405	0.0	1.000	6405530	15.3		2421	M
100.7 > 84.9	6.405	6.405	0.0	1.000	2039220		3.14(2.30-3.80)	1762	

QC Flag Legend

Review Flags
M - Manually Integrated

Report Date: 24-Jun-2014 15:53:53 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_047.d

Injection Date: 21-Jun-2014 22:51:25 Instrument ID: A6

Lims ID: LCS 320-41554/2-A

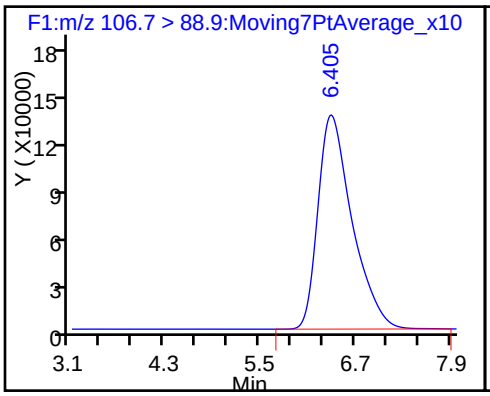
Client ID:

Operator ID: jss ALS Bottle#: 23 Worklist Smp#: 45

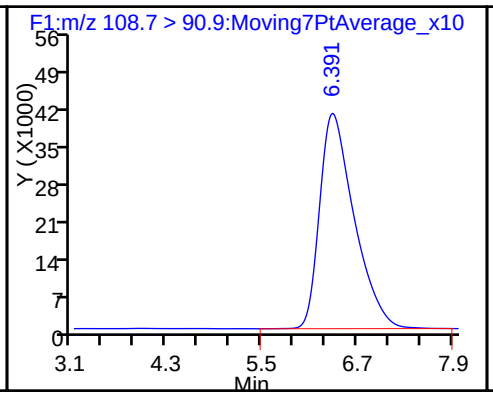
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

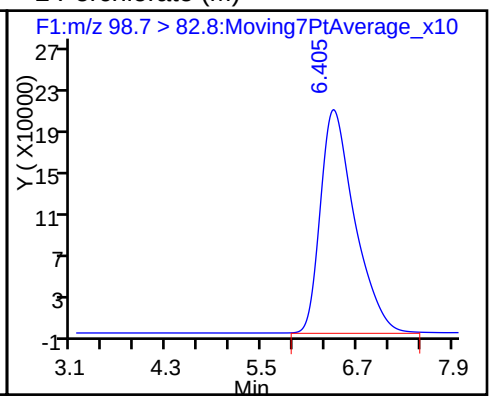
* 1 18-O Perchlorate



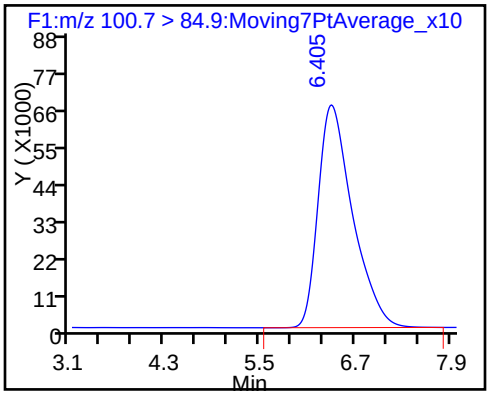
* 1 18-O Perchlorate



2 Perchlorate (M)



2 Perchlorate



Manual Integration/User Assign Peak Report

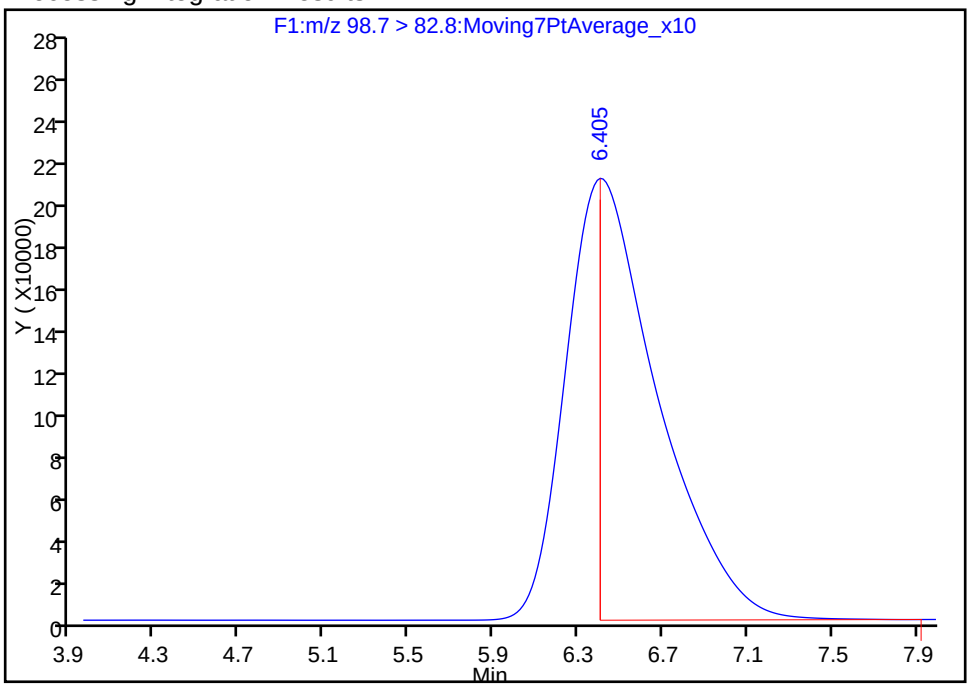
TestAmerica Sacramento

Data File:	\\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_047.d				
Injection Date:	21-Jun-2014 22:51:25	Instrument ID:	A6		
Lims ID:	LCS 320-41554/2-A				
Client ID:					
Operator ID:	jss	ALS Bottle#:	23	Worklist Smp#:	45
Injection Vol:	150.0 ul	Dil. Factor:	1.0000		
Method:	6850_A6	Limit Group:	LC 6850 ICAL		
Column:		Detector	F1:MRM		

2 Perchlorate, CAS: 14797-73-0

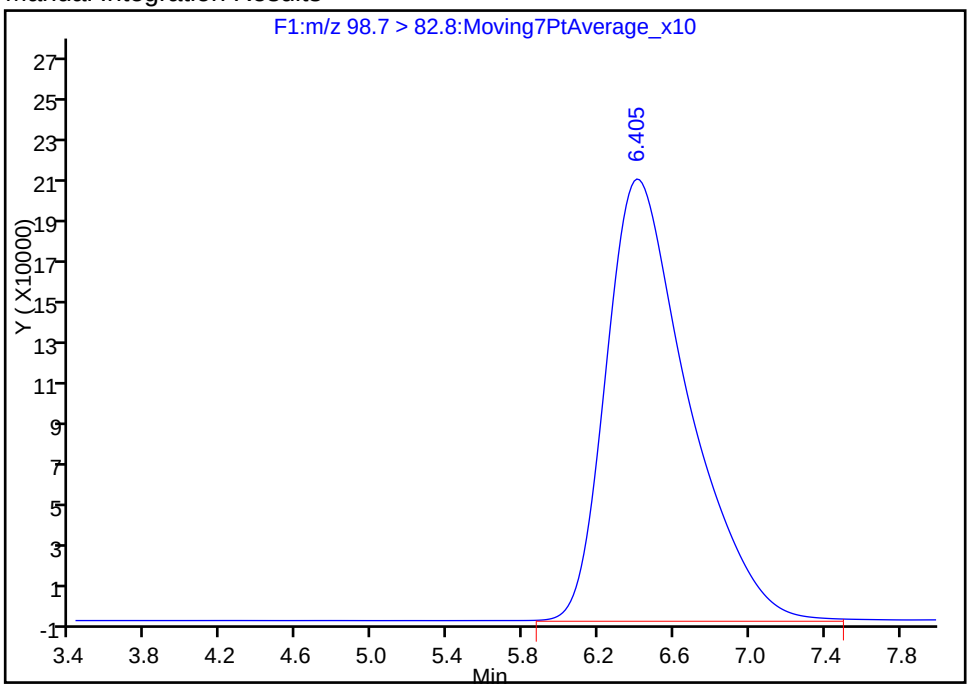
Processing Integration Results

RT: 6.40
Response: 4015247
Amount: 9.598545



Manual Integration Results

RT: 6.40
Response: 6405530
Amount: 15.312575



Reviewer: strumj, 22-Jun-2014 14:37:45
Audit Action: Manually Integrated
Audit Reason: Peak Not Integrated

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-7224-2
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 320-41554/2-A
Matrix: Solid
Lab File ID: 22JUN2014a_051.d
Analysis Method: 6850
Date Collected:
Extraction Method: SHAKE
Date Extracted: 05/01/2014 10:11
Sample wt/vol: 3.00(g)
Date Analyzed: 06/22/2014 19:51
Con. Extract Vol.: 10.00(mL)
Dilution Factor: 1
Injection Volume: 150(uL)
GC Column: Xterra C18 ID: 3.2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 45355
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	45.4		5.0	0.15

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_051.d
Lims ID: LCS 320-41554/2-A
Client ID:
Sample Type: LCS
Inject. Date: 22-Jun-2014 19:51:57 ALS Bottle#: 23 Worklist Smp#: 45
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: LCS 320-41554/2-A
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6

Method: \\Sacchrom\ChromData\A6\20140622-13401.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 24-Jun-2014 15:55:46 Calib Date: 22-Jun-2014 12:01:35
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK007

First Level Reviewer: strumj Date: 23-Jun-2014 07:25:10

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.391	6.391	0.0		3499782	10.1		6870	
108.7 > 90.9	6.391	6.391	0.0		1116282		3.14(2.30-3.80)	3091	
2 Perchlorate									
98.7 > 82.8	6.391	6.405	-0.014	1.000	5189654	13.6		5421	
100.7 > 84.9	6.391	6.405	-0.014	1.000	1709095		3.04(2.30-3.80)	1901	

Report Date: 24-Jun-2014 15:55:48 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_051.d

Injection Date: 22-Jun-2014 19:51:57 Instrument ID: A6

Lims ID: LCS 320-41554/2-A

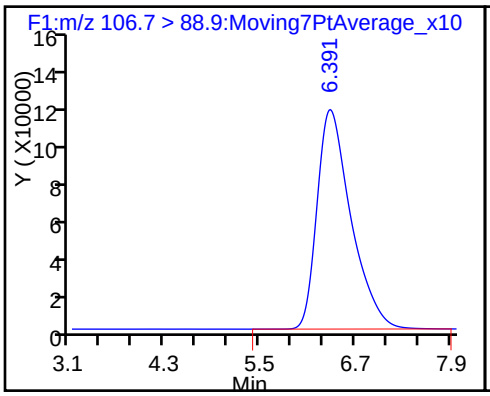
Client ID:

Operator ID: jss ALS Bottle#: 23 Worklist Smp#: 45

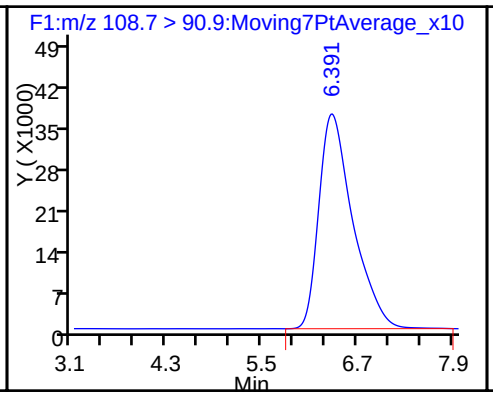
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

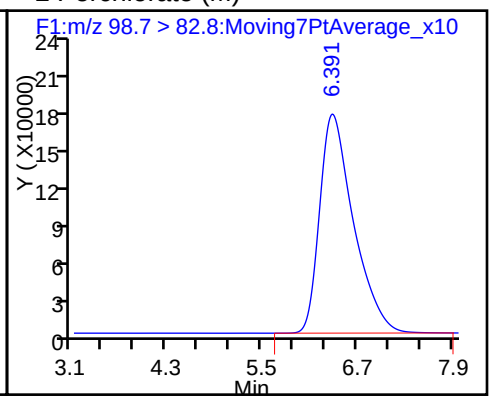
* 1 18-O Perchlorate



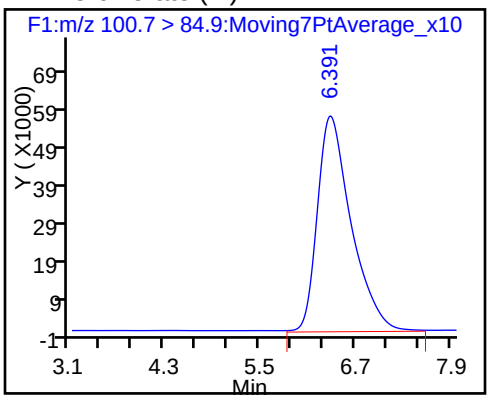
* 1 18-O Perchlorate



2 Perchlorate (M)



2 Perchlorate (M)



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-7224-2
SDG No.:
Client Sample ID:
Lab Sample ID: INF 320-41554/3-A
Matrix: Solid
Lab File ID: 21JUN2014b_048.d
Analysis Method: 6850
Date Collected:
Extraction Method: SHAKE
Date Extracted: 05/01/2014 10:11
Sample wt/vol: 3.00(g)
Date Analyzed: 06/21/2014 23:03
Con. Extract Vol.: 10.00(mL)
Dilution Factor: 1
Injection Volume: 150(uL)
GC Column: Xterra C18 ID: 3.2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 45352
Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	51.5		1.7	0.26

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_048.d
Lims ID: INF 320-41554/3-A
Client ID:
Sample Type: INF
Inject. Date: 21-Jun-2014 23:03:26 ALS Bottle#: 24 Worklist Smp#: 46
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: INF 320-41554/3-A
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6
Sublist:

Method: \\Sacchrom\ChromData\A6\20140622-13400.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 24-Jun-2014 15:53:51 Calib Date: 21-Jun-2014 15:39:52
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK007

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.405	6.391	0.014		3870529	10.1		4805	
108.7 > 90.9	6.405	6.391	0.014		1192646		3.25(2.30-3.80)	2845	
2 Perchlorate									
98.7 > 82.8	6.419	6.405	0.014	1.002	6265682	15.5		8331	
100.7 > 84.9	6.405	6.405	0.0	1.000	2002757		3.13(2.30-3.80)	2673	

Report Date: 24-Jun-2014 15:53:53 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140622-13400.b\21JUN2014b_048.d

Injection Date: 21-Jun-2014 23:03:26 Instrument ID: A6

Lims ID: INF 320-41554/3-A

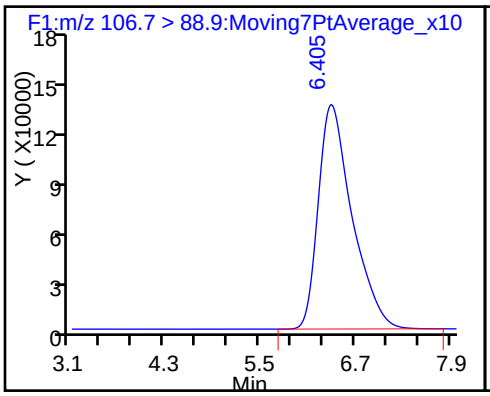
Client ID:

Operator ID: jss ALS Bottle#: 24 Worklist Smp#: 46

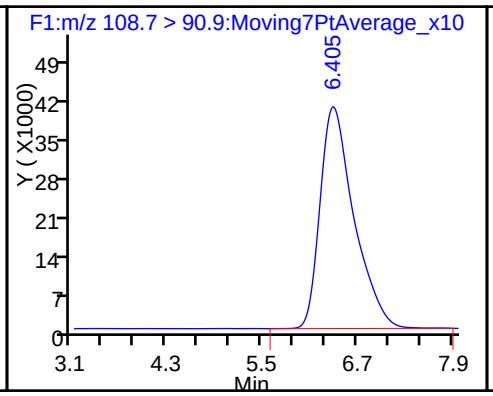
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

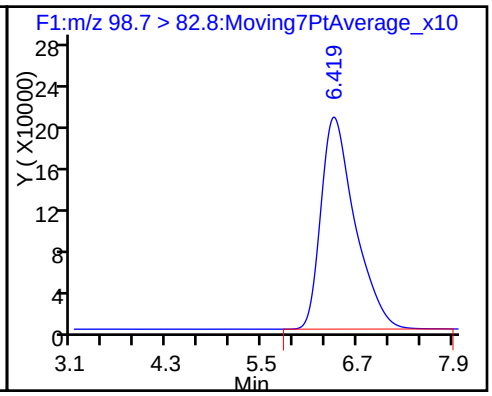
* 1 18-O Perchlorate



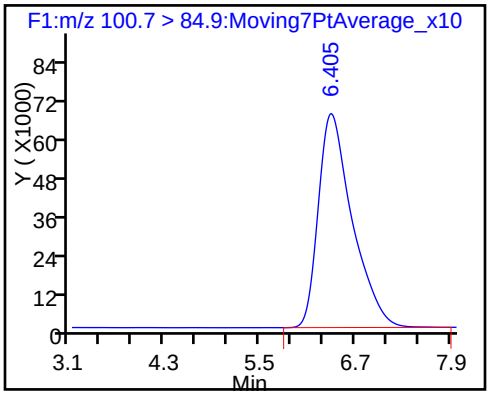
* 1 18-O Perchlorate



2 Perchlorate



2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-7224-2
SDG No.:
Client Sample ID:
Lab Sample ID: INF 320-41554/3-A
Matrix: Solid
Lab File ID: 22JUN2014a_052.d
Analysis Method: 6850
Date Collected:
Extraction Method: SHAKE
Date Extracted: 05/01/2014 10:11
Sample wt/vol: 3.00(g)
Date Analyzed: 06/22/2014 20:03
Con. Extract Vol.: 10.00(mL)
Dilution Factor: 1
Injection Volume: 150(uL)
GC Column: Xterra C18 ID: 3.2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 45355
Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	47.7		1.7	0.26

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_052.d
Lims ID: INF 320-41554/3-A
Client ID:
Sample Type: INF
Inject. Date: 22-Jun-2014 20:03:58 ALS Bottle#: 24 Worklist Smp#: 46
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: INF 320-41554/3-A
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6
Sublist:

Method: \\Sacchrom\ChromData\A6\20140622-13401.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 24-Jun-2014 15:55:46 Calib Date: 22-Jun-2014 12:01:35
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK007

First Level Reviewer: strumj Date: 23-Jun-2014 07:25:45

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
106.7 > 88.9	6.391	6.391	0.0		3562271	10.1		3571	
108.7 > 90.9	6.391	6.391	0.0		1117218		3.19(2.30-3.80)	2106	
2 Perchlorate									M
98.7 > 82.8	6.405	6.405	0.0	1.002	5543166	14.3		7739	
100.7 > 84.9	6.405	6.405	0.0	1.002	1756144		3.16(2.30-3.80)	1630	M

QC Flag Legend

Review Flags
M - Manually Integrated

Report Date: 24-Jun-2014 15:55:48 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_052.d

Injection Date: 22-Jun-2014 20:03:58 Instrument ID: A6

Lims ID: INF 320-41554/3-A

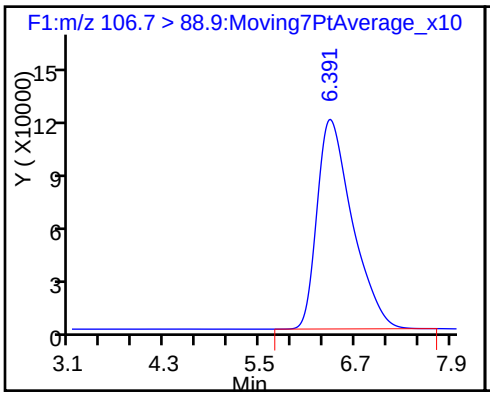
Client ID:

Operator ID: jss ALS Bottle#: 24 Worklist Smp#: 46

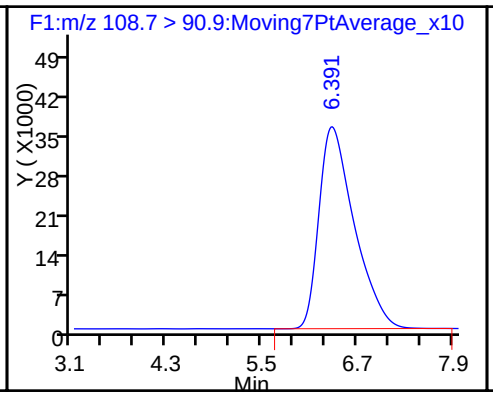
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

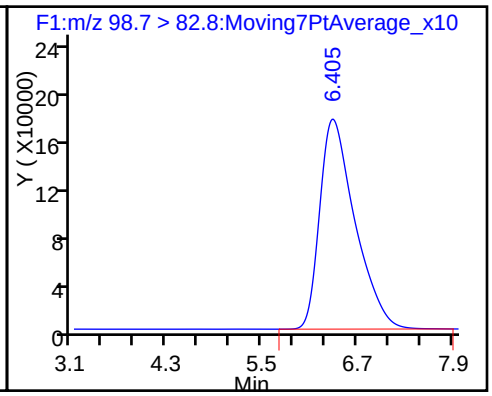
* 1 18-O Perchlorate



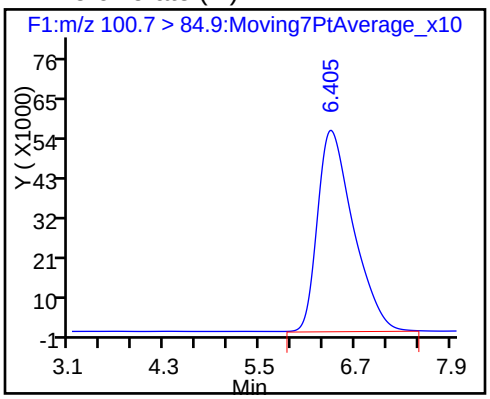
* 1 18-O Perchlorate



2 Perchlorate



2 Perchlorate (M)



Manual Integration/User Assign Peak Report

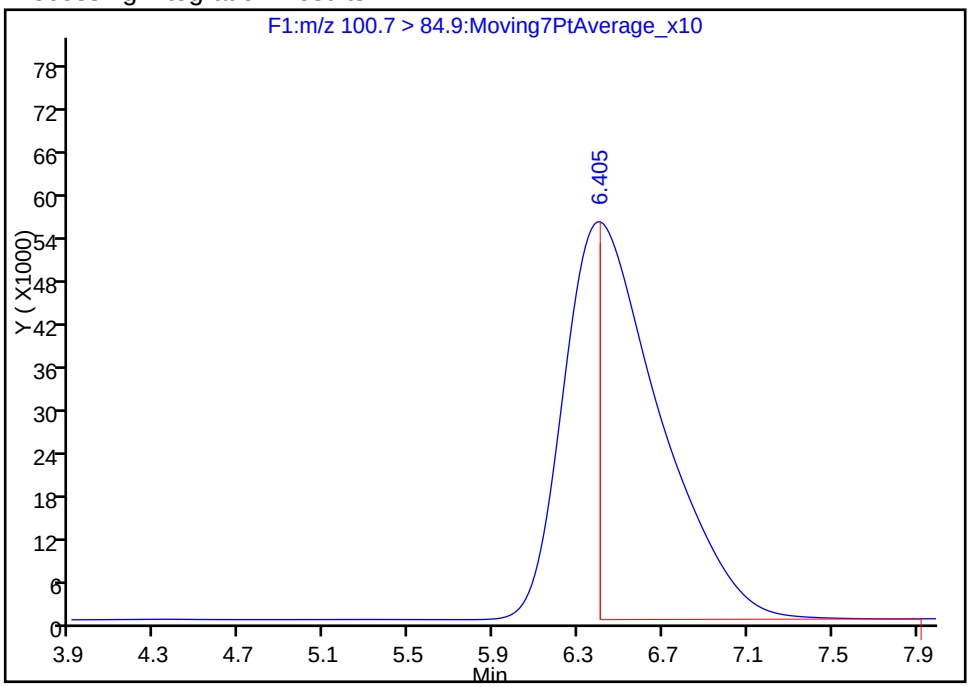
TestAmerica Sacramento

Data File:	\\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_052.d				
Injection Date:	22-Jun-2014 20:03:58	Instrument ID:	A6		
Lims ID:	INF 320-41554/3-A				
Client ID:					
Operator ID:	jss	ALS Bottle#:	24	Worklist Smp#:	46
Injection Vol:	150.0 ul	Dil. Factor:	1.0000		
Method:	6850_A6	Limit Group:	LC 6850 ICAL		
Column:		Detector	F1:MRM		

2 Perchlorate, CAS: 14797-73-0

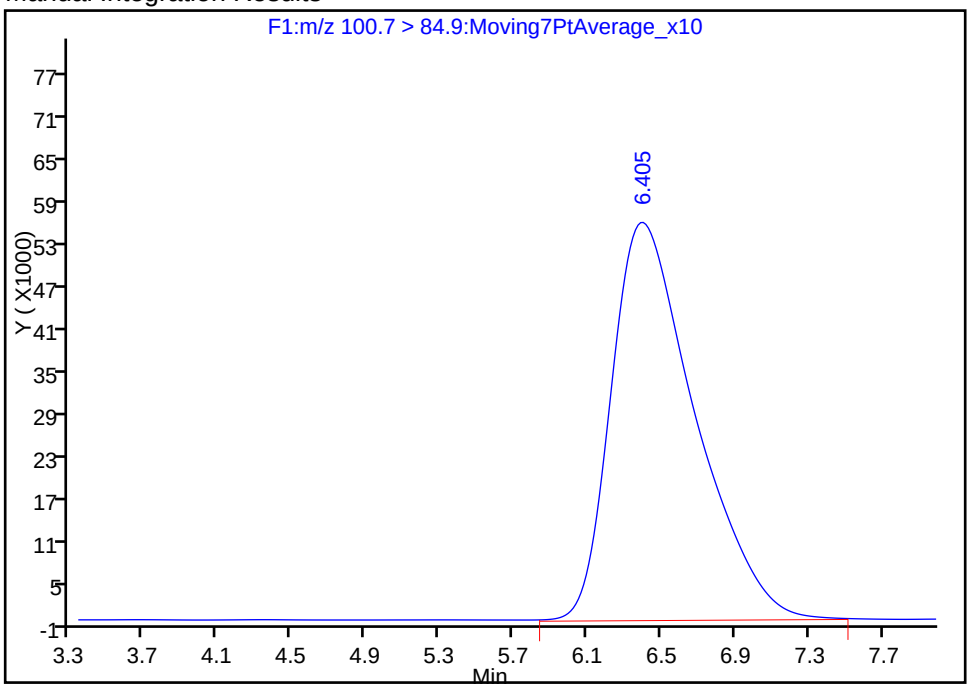
Processing Integration Results

RT: 6.40
Response: 1091576
Amount: 14.304546



Manual Integration Results

RT: 6.40
Response: 1756144
Amount: 14.304546



Reviewer: strumj, 23-Jun-2014 07:25:45
Audit Action: Manually Integrated
Audit Reason: Peak Not Integrated

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-7224-2
SDG No.:
Client Sample ID: MAK130L MS
Lab Sample ID: 320-7224-17 MS
Matrix: Solid
Lab File ID: 22JUN2014a_054.d
Analysis Method: 6850
Date Collected: 03/27/2014 08:20
Extraction Method: SHAKE
Date Extracted: 05/01/2014 10:11
Sample wt/vol: 1.52(g)
Date Analyzed: 06/22/2014 20:27
Con. Extract Vol.: 10.00(mL)
Dilution Factor: 1
Injection Volume: 150(uL)
GC Column: Xterra C18 ID: 3.2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 45355
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	95.9		9.9	0.30

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_054.d
Lims ID: 320-7224-A-17-B MS
Client ID: MAK130L
Sample Type: MS
Inject. Date: 22-Jun-2014 20:27:54 ALS Bottle#: 26 Worklist Smp#: 48
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: 320-7224-A-17-B MS
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6

Method: \\Sacchrom\ChromData\A6\20140622-13401.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 24-Jun-2014 15:55:46 Calib Date: 22-Jun-2014 12:01:35
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK007

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									s
106.7 > 88.9	6.405	6.391	0.014		1710685	10.1		1832	
108.7 > 90.9	6.405	6.391	0.014		523158		3.27(2.30-3.80)	1447	
2 Perchlorate									
98.7 > 82.8	6.419	6.405	0.014	1.002	2712375	14.6		2861	
100.7 > 84.9	6.419	6.405	0.014	1.002	837559		3.24(2.30-3.80)	1996	

QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Report Date: 24-Jun-2014 15:55:49 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_054.d

Injection Date: 22-Jun-2014 20:27:54 Instrument ID: A6

Lims ID: 320-7224-A-17-B MS

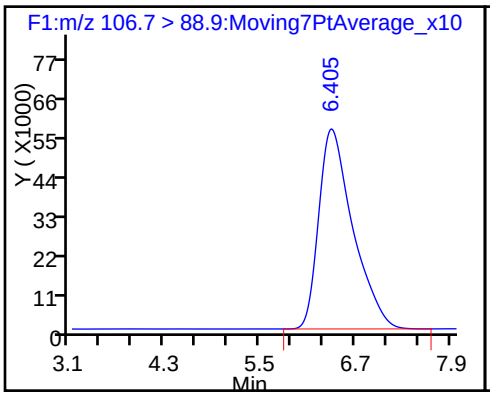
Client ID: MAK130L

Operator ID: jss ALS Bottle#: 26 Worklist Smp#: 48

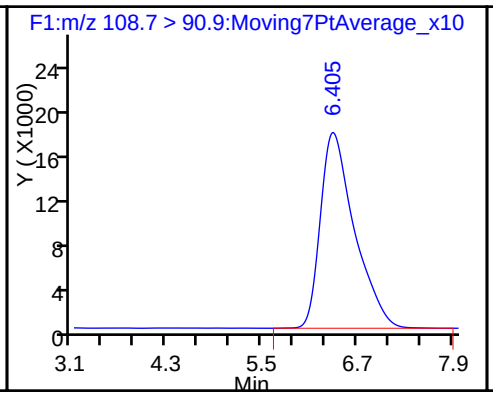
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

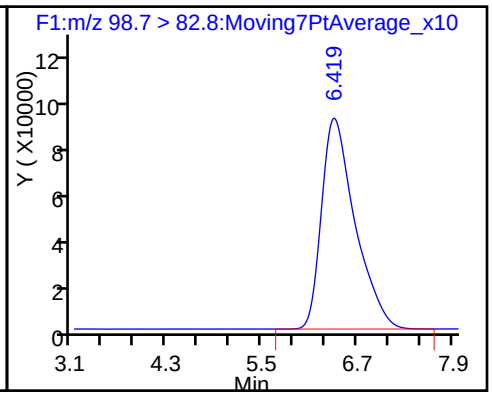
* 1 18-O Perchlorate



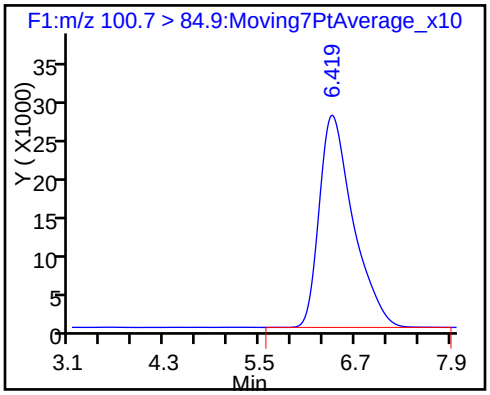
* 1 18-O Perchlorate



2 Perchlorate



2 Perchlorate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-7224-2
SDG No.:
Client Sample ID: MAK130L MSD
Lab Sample ID: 320-7224-17 MSD
Matrix: Solid
Lab File ID: 22JUN2014a_055.d
Analysis Method: 6850
Date Collected: 03/27/2014 08:20
Extraction Method: SHAKE
Date Extracted: 05/01/2014 10:11
Sample wt/vol: 1.57(g)
Date Analyzed: 06/22/2014 20:39
Con. Extract Vol.: 10.00(mL)
Dilution Factor: 1
Injection Volume: 150(uL)
GC Column: Xterra C18 ID: 3.2(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 45355
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	93.2		9.6	0.29

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_055.d
Lims ID: 320-7224-A-17-C MSD
Client ID: MAK130L
Sample Type: MSD
Inject. Date: 22-Jun-2014 20:39:49 ALS Bottle#: 27 Worklist Smp#: 49
Injection Vol: 150.0 ul Dil. Factor: 1.0000
Sample Info: 320-7224-A-17-C MSD
Misc. Info.: 06202014_6850 IC PAKAnion HR, 75x4.6mm, T=55*C
Operator ID: jss Instrument ID: A6

Method: \\Sacchrom\ChromData\A6\20140622-13401.b\6850_A6.m
Limit Group: LC 6850 ICAL
Last Update: 24-Jun-2014 15:55:46 Calib Date: 22-Jun-2014 12:01:35
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_011.d

Column 1 : Det: F1:MRM
Process Host: XAWRK007

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									s
106.7 > 88.9	6.405	6.391	0.014		1716346	10.1		2629	
108.7 > 90.9	6.391	6.391	0.0		532744		3.22(2.30-3.80)	710	
2 Perchlorate									
98.7 > 82.8	6.419	6.405	0.014	1.002	2731413	14.6		2849	
100.7 > 84.9	6.405	6.405	0.0	1.000	873870		3.13(2.30-3.80)	1270	

QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

Report Date: 24-Jun-2014 15:55:49 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A6\20140622-13401.b\22JUN2014a_055.d

Injection Date: 22-Jun-2014 20:39:49 Instrument ID: A6

Lims ID: 320-7224-A-17-C MSD

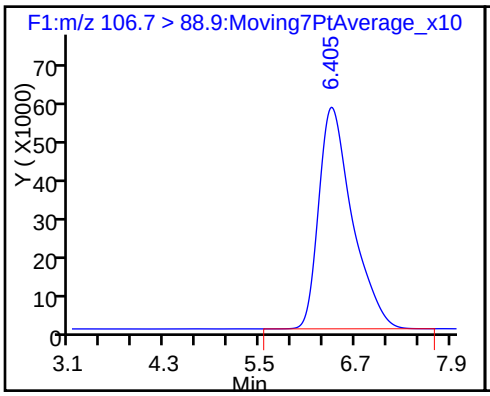
Client ID: MAK130L

Operator ID: jss ALS Bottle#: 27 Worklist Smp#: 49

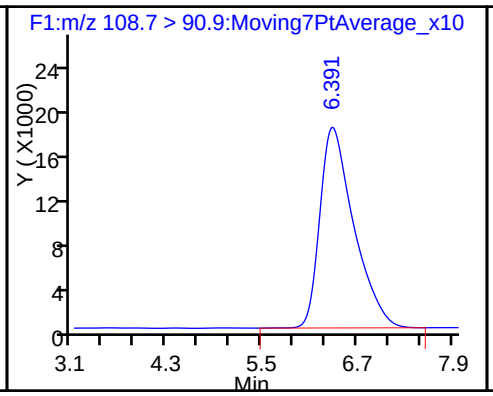
Injection Vol: 150.0 ul Dil. Factor: 1.0000

Method: 6850_A6 Limit Group: LC 6850 ICAL

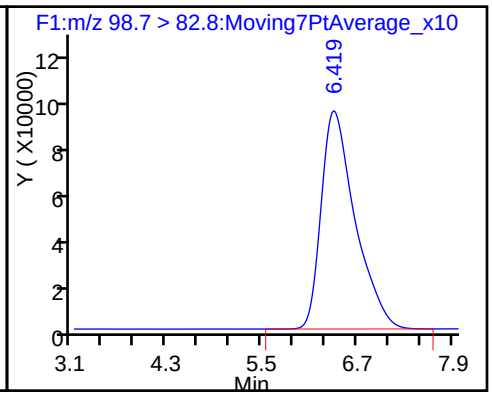
* 1 18-O Perchlorate



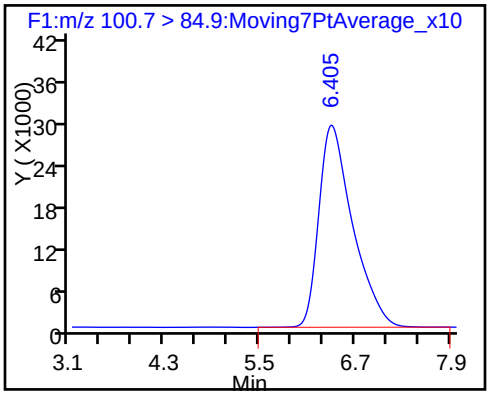
* 1 18-O Perchlorate



2 Perchlorate



2 Perchlorate



LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2

SDG No.:

Instrument ID: A6 Start Date: 06/21/2014 14:03

Analysis Batch Number: 45352 End Date: 06/22/2014 08:15

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		06/21/2014 14:03	1		Xterra C18 3.2(mm)
ICB 320-45352/2		06/21/2014 14:15	1	21JUN2014b_004.d	Xterra C18 3.2(mm)
STD01 320-45352/3 IC		06/21/2014 14:27	1	21JUN2014b_005.d	Xterra C18 3.2(mm)
STD02 320-45352/4 IC		06/21/2014 14:39	1	21JUN2014b_006.d	Xterra C18 3.2(mm)
STD03 320-45352/5 IC		06/21/2014 14:51	1	21JUN2014b_007.d	Xterra C18 3.2(mm)
STD04 320-45352/6 IC		06/21/2014 15:03	1	21JUN2014b_008.d	Xterra C18 3.2(mm)
ICISAV 320-45352/7		06/21/2014 15:15	1	21JUN2014b_009.d	Xterra C18 3.2(mm)
STD07 320-45352/8 IC		06/21/2014 15:27	1	21JUN2014b_010.d	Xterra C18 3.2(mm)
STD08 320-45352/9 IC		06/21/2014 15:39	1	21JUN2014b_011.d	Xterra C18 3.2(mm)
CCB 320-45352/10		06/21/2014 15:51	1	21JUN2014b_012.d	Xterra C18 3.2(mm)
ICV 320-45352/11		06/21/2014 16:03	1	21JUN2014b_013.d	Xterra C18 3.2(mm)
CCV 320-45352/12		06/21/2014 16:15	1		Xterra C18 3.2(mm)
CCVL 320-45352/13		06/21/2014 16:27	1	21JUN2014b_015.d	Xterra C18 3.2(mm)
ZZZZZ		06/21/2014 16:39	1		Xterra C18 3.2(mm)
ZZZZZ		06/21/2014 16:51	1		Xterra C18 3.2(mm)
ZZZZZ		06/21/2014 17:03	1		Xterra C18 3.2(mm)
INF 320-41549/3-A		06/21/2014 17:15	1		Xterra C18 3.2(mm)
ZZZZZ		06/21/2014 17:27	10		Xterra C18 3.2(mm)
ZZZZZ		06/21/2014 17:39	10		Xterra C18 3.2(mm)
ZZZZZ		06/21/2014 17:51	10		Xterra C18 3.2(mm)
ZZZZZ		06/21/2014 18:03	10		Xterra C18 3.2(mm)
ZZZZZ		06/21/2014 18:15	10		Xterra C18 3.2(mm)
ZZZZZ		06/21/2014 18:27	10		Xterra C18 3.2(mm)
ZZZZZ		06/21/2014 18:39	10		Xterra C18 3.2(mm)
ZZZZZ		06/21/2014 18:51	1		Xterra C18 3.2(mm)
ZZZZZ		06/21/2014 19:03	1		Xterra C18 3.2(mm)
CCV 320-45352/27		06/21/2014 19:15	1		Xterra C18 3.2(mm)
ZZZZZ		06/21/2014 19:27	1		Xterra C18 3.2(mm)
ZZZZZ		06/21/2014 19:39	10		Xterra C18 3.2(mm)
ZZZZZ		06/21/2014 19:51	10		Xterra C18 3.2(mm)
ZZZZZ		06/21/2014 20:03	10		Xterra C18 3.2(mm)
ZZZZZ		06/21/2014 20:15	10		Xterra C18 3.2(mm)
ZZZZZ		06/21/2014 20:27	10		Xterra C18 3.2(mm)
ZZZZZ		06/21/2014 20:39	10		Xterra C18 3.2(mm)
ZZZZZ		06/21/2014 20:51	10		Xterra C18 3.2(mm)
ZZZZZ		06/21/2014 21:03	10		Xterra C18 3.2(mm)
ZZZZZ		06/21/2014 21:15	10		Xterra C18 3.2(mm)
ZZZZZ		06/21/2014 21:27	10		Xterra C18 3.2(mm)
ZZZZZ		06/21/2014 21:39	1		Xterra C18 3.2(mm)
ZZZZZ		06/21/2014 21:51	1		Xterra C18 3.2(mm)

6850

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2

SDG No.:

Instrument ID: A6 Start Date: 06/21/2014 14:03

Analysis Batch Number: 45352 End Date: 06/22/2014 08:15

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 320-45352/41		06/21/2014 22:03	1	21JUN2014b_043.d	Xterra C18 3.2(mm)
ZZZZZ		06/21/2014 22:15	1		Xterra C18 3.2(mm)
ZZZZZ		06/21/2014 22:27	10		Xterra C18 3.2(mm)
MB 320-41554/1-A		06/21/2014 22:39	1	21JUN2014b_046.d	Xterra C18 3.2(mm)
LCS 320-41554/2-A		06/21/2014 22:51	1	21JUN2014b_047.d	Xterra C18 3.2(mm)
INF 320-41554/3-A		06/21/2014 23:03	1	21JUN2014b_048.d	Xterra C18 3.2(mm)
320-7224-17	MAK130L	06/21/2014 23:15	10	21JUN2014b_049.d	Xterra C18 3.2(mm)
320-7224-17 MS	MAK130L MS	06/21/2014 23:27	10	21JUN2014b_050.d	Xterra C18 3.2(mm)
320-7224-17 MSD	MAK130L MSD	06/21/2014 23:39	10	21JUN2014b_051.d	Xterra C18 3.2(mm)
320-7224-18	MAK132L	06/21/2014 23:51	10	21JUN2014b_052.d	Xterra C18 3.2(mm)
320-7224-19	MAK134L	06/22/2014 00:03	10	21JUN2014b_053.d	Xterra C18 3.2(mm)
320-7224-20	MAK135L	06/22/2014 00:15	10	21JUN2014b_054.d	Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 00:27	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 00:39	1		Xterra C18 3.2(mm)
CCV 320-45352/55		06/22/2014 00:51	1	21JUN2014b_057.d	Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 01:03	1		Xterra C18 3.2(mm)
320-7224-21	MAK138L	06/22/2014 01:15	10	21JUN2014b_059.d	Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 01:27	10		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 01:39	10		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 01:51	10		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 02:03	10		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 02:15	10		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 02:27	10		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 02:39	10		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 02:51	10		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 03:03	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 03:15	1		Xterra C18 3.2(mm)
CCV 320-45352/68		06/22/2014 03:27	1	21JUN2014b_070.d	Xterra C18 3.2(mm)
CCVL 320-45352/69		06/22/2014 03:39	1	21JUN2014b_071.d	Xterra C18 3.2(mm)
CCB 320-45352/70		06/22/2014 03:51	1	21JUN2014b_072.d	Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 04:03	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 04:15	1		Xterra C18 3.2(mm)
INF 320-45203/3-A		06/22/2014 04:27	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 04:39	5		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 04:51	5		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 05:03	5		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 05:15	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 05:27	1		Xterra C18 3.2(mm)

6850

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2

SDG No.:

Instrument ID: A6 Start Date: 06/21/2014 14:03

Analysis Batch Number: 45352 End Date: 06/22/2014 08:15

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 320-45352/79		06/22/2014 05:39	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 05:51	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 06:03	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 06:15	1		Xterra C18 3.2(mm)
INF 320-44884/3-A		06/22/2014 06:27	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 06:39	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 06:51	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 07:03	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 07:15	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 07:27	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 07:39	1		Xterra C18 3.2(mm)
CCV 320-45352/90		06/22/2014 07:51	1		Xterra C18 3.2(mm)
CCVL 320-45352/91		06/22/2014 08:03	1		Xterra C18 3.2(mm)
CCB 320-45352/92		06/22/2014 08:15	1		Xterra C18 3.2(mm)

6850

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2

SDG No.:

Instrument ID: A6 Start Date: 06/22/2014 10:37

Analysis Batch Number: 45355 End Date: 06/23/2014 17:41

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ICB 320-45355/2		06/22/2014 10:37	1	22JUN2014a_004.d	Xterra C18 3.2(mm)
STD01 320-45355/3 IC		06/22/2014 10:49	1	22JUN2014a_005.d	Xterra C18 3.2(mm)
STD02 320-45355/4 IC		06/22/2014 11:01	1	22JUN2014a_006.d	Xterra C18 3.2(mm)
STD03 320-45355/5 IC		06/22/2014 11:13	1	22JUN2014a_007.d	Xterra C18 3.2(mm)
STD04 320-45355/6 IC		06/22/2014 11:25	1	22JUN2014a_008.d	Xterra C18 3.2(mm)
ICISAV 320-45355/7		06/22/2014 11:37	1	22JUN2014a_009.d	Xterra C18 3.2(mm)
STD07 320-45355/8 IC		06/22/2014 11:49	1	22JUN2014a_010.d	Xterra C18 3.2(mm)
STD08 320-45355/9 IC		06/22/2014 12:01	1	22JUN2014a_011.d	Xterra C18 3.2(mm)
CCB 320-45355/10		06/22/2014 12:13	1	22JUN2014a_012.d	Xterra C18 3.2(mm)
ICV 320-45355/11		06/22/2014 12:25	1	22JUN2014a_013.d	Xterra C18 3.2(mm)
CCV 320-45355/12		06/22/2014 12:37	1		Xterra C18 3.2(mm)
CCVL 320-45355/13		06/22/2014 12:49	1	22JUN2014a_015.d	Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 13:01	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 13:13	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 13:25	1		Xterra C18 3.2(mm)
INF 320-41549/3-A		06/22/2014 13:37	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 13:49	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 14:01	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 14:13	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 14:25	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 14:37	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 14:49	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 15:01	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 15:13	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 15:25	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 15:36	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 15:46	1		Xterra C18 3.2(mm)
CCV 320-45355/27		06/22/2014 15:56	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 16:08	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 16:20	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 16:32	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 16:44	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 16:56	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 17:08	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 17:20	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 17:32	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 17:44	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 17:56	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 18:08	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 18:20	1		Xterra C18 3.2(mm)

6850

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2

SDG No.:

Instrument ID: A6 Start Date: 06/22/2014 10:37

Analysis Batch Number: 45355 End Date: 06/23/2014 17:41

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		06/22/2014 18:32	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 18:43	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 18:53	1		Xterra C18 3.2(mm)
CCV 320-45355/41		06/22/2014 19:03	1	22JUN2014a_047.d	Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 19:15	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 19:27	1		Xterra C18 3.2(mm)
MB 320-41554/1-A		06/22/2014 19:39	1	22JUN2014a_050.d	Xterra C18 3.2(mm)
LCS 320-41554/2-A		06/22/2014 19:51	1	22JUN2014a_051.d	Xterra C18 3.2(mm)
INF 320-41554/3-A		06/22/2014 20:03	1	22JUN2014a_052.d	Xterra C18 3.2(mm)
320-7224-17	MAK130L	06/22/2014 20:15	1	22JUN2014a_053.d	Xterra C18 3.2(mm)
320-7224-17 MS	MAK130L MS	06/22/2014 20:27	1	22JUN2014a_054.d	Xterra C18 3.2(mm)
320-7224-17 MSD	MAK130L MSD	06/22/2014 20:39	1	22JUN2014a_055.d	Xterra C18 3.2(mm)
320-7224-18	MAK132L	06/22/2014 20:51	1	22JUN2014a_056.d	Xterra C18 3.2(mm)
320-7224-19	MAK134L	06/22/2014 21:03	1	22JUN2014a_057.d	Xterra C18 3.2(mm)
320-7224-20	MAK135L	06/22/2014 21:15	1	22JUN2014a_058.d	Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 21:27	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 21:39	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 21:50	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 22:00	1		Xterra C18 3.2(mm)
CCV 320-45355/55		06/22/2014 22:10	1	22JUN2014a_063.d	Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 22:22	1		Xterra C18 3.2(mm)
320-7224-21	MAK138L	06/22/2014 22:34	1	22JUN2014a_065.d	Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 22:46	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 22:59	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 23:10	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 23:22	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 23:34	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 23:46	1		Xterra C18 3.2(mm)
ZZZZZ		06/22/2014 23:58	1		Xterra C18 3.2(mm)
ZZZZZ		06/23/2014 00:10	1		Xterra C18 3.2(mm)
ZZZZZ		06/23/2014 00:22	1		Xterra C18 3.2(mm)
ZZZZZ		06/23/2014 00:34	1		Xterra C18 3.2(mm)
ZZZZZ		06/23/2014 00:45	1		Xterra C18 3.2(mm)
ZZZZZ		06/23/2014 00:55	1		Xterra C18 3.2(mm)
CCV 320-45355/68		06/23/2014 01:06	1	22JUN2014a_078.d	Xterra C18 3.2(mm)
CCVL 320-45355/69		06/23/2014 01:18	1	22JUN2014a_079.d	Xterra C18 3.2(mm)
CCB 320-45355/70		06/23/2014 01:30	1	22JUN2014a_080.d	Xterra C18 3.2(mm)
CCV 320-45355/101		06/23/2014 16:17	1		Xterra C18 3.2(mm)

6850

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2

SDG No.:

Instrument ID: A6 Start Date: 06/22/2014 10:37

Analysis Batch Number: 45355 End Date: 06/23/2014 17:41

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		06/23/2014 16:29	1		Xterra C18 3.2(mm)
ZZZZZ		06/23/2014 16:41	10		Xterra C18 3.2(mm)
ZZZZZ		06/23/2014 16:53	10		Xterra C18 3.2(mm)
ZZZZZ		06/23/2014 17:05	1		Xterra C18 3.2(mm)
CCV 320-45355/107		06/23/2014 17:17	1		Xterra C18 3.2(mm)
CCVL 320-45355/108		06/23/2014 17:29	1		Xterra C18 3.2(mm)
CCB 320-45355/109		06/23/2014 17:41	1		Xterra C18 3.2(mm)

6850

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2

SDG No.:

Instrument ID: A6 Start Date: 06/19/2014 19:07

Analysis Batch Number: 45220 End Date: 06/20/2014 15:08

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ICB 320-45220/2		06/19/2014 19:07	1		Xterra C18 3.2(mm)
STD01 320-45220/3 IC		06/19/2014 19:19	1	19JUN2014b_005.d	Xterra C18 3.2(mm)
STD02 320-45220/4 IC		06/19/2014 19:31	1	19JUN2014b_006.d	Xterra C18 3.2(mm)
STD03 320-45220/5 IC		06/19/2014 19:43	1	19JUN2014b_007.d	Xterra C18 3.2(mm)
STD04 320-45220/6 IC		06/19/2014 19:55	1	19JUN2014b_008.d	Xterra C18 3.2(mm)
ICISAV 320-45220/7		06/19/2014 20:07	1	19JUN2014b_009.d	Xterra C18 3.2(mm)
STD07 320-45220/8 IC		06/19/2014 20:19	1	19JUN2014b_010.d	Xterra C18 3.2(mm)
STD08 320-45220/9 IC		06/19/2014 20:31	1	19JUN2014b_011.d	Xterra C18 3.2(mm)
CCB 320-45220/10		06/19/2014 20:43	1		Xterra C18 3.2(mm)
ICV 320-45220/11		06/19/2014 20:55	1		Xterra C18 3.2(mm)
CCV 320-45220/12		06/19/2014 21:07	1		Xterra C18 3.2(mm)
CCVL 320-45220/13		06/19/2014 21:19	1		Xterra C18 3.2(mm)
ZZZZZ		06/19/2014 21:43	1		Xterra C18 3.2(mm)
ZZZZZ		06/19/2014 21:55	1		Xterra C18 3.2(mm)
ZZZZZ		06/19/2014 22:07	1		Xterra C18 3.2(mm)
ZZZZZ		06/19/2014 22:19	1		Xterra C18 3.2(mm)
ZZZZZ		06/19/2014 22:31	1		Xterra C18 3.2(mm)
ZZZZZ		06/19/2014 22:43	1		Xterra C18 3.2(mm)
ZZZZZ		06/19/2014 22:55	1		Xterra C18 3.2(mm)
ZZZZZ		06/19/2014 23:07	1		Xterra C18 3.2(mm)
ZZZZZ		06/19/2014 23:19	1		Xterra C18 3.2(mm)
ZZZZZ		06/19/2014 23:31	1		Xterra C18 3.2(mm)
ZZZZZ		06/19/2014 23:43	1		Xterra C18 3.2(mm)
CCV 320-45220/26		06/19/2014 23:55	1		Xterra C18 3.2(mm)
ZZZZZ		06/20/2014 00:07	1		Xterra C18 3.2(mm)
ZZZZZ		06/20/2014 02:07	1		Xterra C18 3.2(mm)
CCV 320-45220/38		06/20/2014 02:19	1		Xterra C18 3.2(mm)
CCVL 320-45220/39		06/20/2014 02:31	1		Xterra C18 3.2(mm)
CCB 320-45220/41		06/20/2014 02:55	1		Xterra C18 3.2(mm)
CCV 320-45220/67		06/20/2014 08:07	1		Xterra C18 3.2(mm)
ZZZZZ		06/20/2014 12:08	1		Xterra C18 3.2(mm)
CCV 320-45220/87		06/20/2014 12:20	1		Xterra C18 3.2(mm)
ZZZZZ		06/20/2014 12:32	1		Xterra C18 3.2(mm)
ZZZZZ		06/20/2014 12:44	1		Xterra C18 3.2(mm)
ZZZZZ		06/20/2014 12:56	1		Xterra C18 3.2(mm)
INF 320-43786/3-A		06/20/2014 13:08	1		Xterra C18 3.2(mm)
ZZZZZ		06/20/2014 13:20	1		Xterra C18 3.2(mm)
ZZZZZ		06/20/2014 13:32	1		Xterra C18 3.2(mm)
ZZZZZ		06/20/2014 13:44	1		Xterra C18 3.2(mm)
ZZZZZ		06/20/2014 13:56	1		Xterra C18 3.2(mm)
ZZZZZ		06/20/2014 14:08	1		Xterra C18 3.2(mm)
ZZZZZ		06/20/2014 14:20	1		Xterra C18 3.2(mm)

6850

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2

SDG No.:

Instrument ID: A6 Start Date: 06/19/2014 19:07

Analysis Batch Number: 45220 End Date: 06/20/2014 15:08

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 320-45220/98		06/20/2014 14:32	1		Xterra C18 3.2(mm)
CCVL 320-45220/99		06/20/2014 14:44	1		Xterra C18 3.2(mm)
CCB 320-45220/101		06/20/2014 15:08	1		Xterra C18 3.2(mm)

6850

LCMS BATCH WORKSHEET

Lab Name: TestAmerica Sacramento Job No.: 320-7224-2

SDG No.:

Batch Number: 41554 Batch Start Date: 05/01/14 10:11 Batch Analyst: Arauz, Horacio

Batch Method: SHAKE Batch End Date: 05/05/14 09:58

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	LC6850IS 00024	LC6850SP 00016		
MB 320-41554/1		SHAKE, 6850		3.00 g	10.00 mL	100 uL			
LCS 320-41554/2		SHAKE, 6850		3.00 g	10.00 mL	100 uL	150 uL		
INF 320-41554/3		SHAKE, 6850		3.00 g	10.00 mL	100 uL	150 uL		
320-7224-A-17	MAK130L	SHAKE, 6850	T	1.50 g	10.00 mL	100 uL			
320-7224-A-17 MS	MAK130L	SHAKE, 6850	T	1.52 g	10.00 mL	100 uL	150 uL		
320-7224-A-17 MSD	MAK130L	SHAKE, 6850	T	1.57 g	10.00 mL	100 uL	150 uL		
320-7224-A-18	MAK132L	SHAKE, 6850	T	1.49 g	10.00 mL	100 uL			
320-7224-A-19	MAK134L	SHAKE, 6850	T	1.50 g	10.00 mL	100 uL			
320-7224-A-20	MAK135L	SHAKE, 6850	T	1.55 g	10.00 mL	100 uL			
320-7224-A-21	MAK138L	SHAKE, 6850	T	1.57 g	10.00 mL	100 uL			

Batch Notes	
Batch Comment	Pipetters EC15219; EC15131; INF 4515-055D
Filter Lot #	.45um Millipore R4AA24407; .20um Millex R3NA98716
Millipore Water Dispense Date	4-29-14
Person's name who witnessed reagent drop	NGK
Blank Sand Lot #	FISHER 135365
SPE Cartridge Lot #	Dionex 140212
SPE Cartridge Type	Ba/Ag/H

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

West Sacramento

HPLC/LCMS Data Review Checklist

Job Number(s): 320-7224 440-80728 Work List ID(s): 13400 13401

Extraction Batch: 41549, 41554, 44884, 45203 Analysis Batch(es): 45352 45355

Delivery Rank 4 Due Date: 5/30/14

A. Calibration/Instrument Run QC	1st Level	2nd Level	N/A
1. ICAL locked in Chrom and TALS? ICAL Batch#	✓	/	
2. ICAL, CCV Frequency & Criteria met.	✓	/	
• $RF_{average}$ criteria appropriate for the method.	✓	/	
• Linear Regression criteria appropriate if required ($r \geq 0.995$).			✓
• Quadratic fit criteria appropriate if required ($r^2 \geq 0.990$).			✓
• For Linear Regression and Quadratic fit – Does the y-intercept support ½ the reporting limit as described in CA-Q-S-005?			✓
• All curve points show calculated concentrations.	✓	/	
3. Peaks correctly ID'd by data system.	✓	/	
5. Tune check frequency & criteria met and Tune check report attached.			✓
B. QA/QC			
1. Are all QC samples properly linked in TALS?	✓	/	
2. Method blank, LCS/LCSD and MS/SD frequencies met.	✓	/	
3. LCS/LCSD and MB data are within control limits. If not, NCM is present.	✓	/	
4. Are MS/MSD recoveries and RPD within control limits?	✓	/	
5. Holding Times were met for prep and analytical.	✓ *	/	
6. IS/Surrogate recoveries meet criteria or properly noted.	✓	/	
C. Sample Analysis			
1. Was correct analysis performed and were project instructions followed?	✓	/	
2. If required, are compounds within RT windows?			✓
3. If required, are positive hits confirmed and >40% RPD flagged?			✓
4. Manual Integrations reviewed and appropriate.	✓	/	
5. All analytes correctly reported. (Primary, secondary, acceptable status)	✓	/	
6. Correct reporting limits used. (based on client request, prep factors, and dilutions)	✓	/	
D. Documentation			
1. Are all non-conformances documented/attached? NCM#	✓	/	
2. Do results make sense (e.g. dilutions, etc.)?	✓	/	
3. Have all flags been reviewed for appropriateness?	✓	/	
4. For level 3 and 4 reports, have forms and raw data been reviewed?		/	
5. Was QC Checker run for this job?	✓	/	

Upon completion of this checklist, the reviewer must scan and attach the checklist to the TALS job.

1st Level (Analyst): [signature] Date: 6/23/14

2nd Level Reviewer: [signature] Date: 06/25/14

* samples recieved out of hold time

Solid SW-846-3500 Analysis Sheet

(To Accompany Samples to Instruments)

CC

Batch Number: 320-41549

Method Code: 320-Shake_SonicBath-320

Analyst: Arauz, Horacio

Batch Open: 5/1/2014 9:26:03AM

Batch End: 5-2-14 15:30

Shake Extraction with Ultrasonic Bath Extraction

	Input Sample Lab ID (Analytical Method)	SDG	Initial Amount	Final Amount	Due Date	Analytical TAT	Div Rank	Comments	Output Sample Lab ID
1	MB~320-41549/1 N/A	N/A	3.00 g	10.00 mL	N/A	N/A	N/A		MB 320-41549/1-A
2	LCS~320-41549/2 N/A	N/A	3.00 g	10.00 mL	N/A	N/A	N/A		LCS 320-41549/2-A
3	INF~320-41549/3 N/A	N/A	3.00 g	10.00 mL	N/A	N/A	N/A		INF 320-41549/3-A
4	320-7224-A-1 (6850)	N/A	1.53 g	10.00 mL	5/30/14	22_Days	4		320-7224-A-1-A
5	320-7224-A-1~MS (6850)	N/A	1.50 g	10.00 mL	5/30/14	22_Days	4		320-7224-A-1-B MS
6	320-7224-A-1~MSD (6850)	N/A	1.52 g	10.00 mL	5/30/14	22_Days	4		320-7224-A-1-C MSD
7	320-7224-A-2 (6850)	N/A	1.49 g	10.00 mL	5/30/14	22_Days	4		320-7224-A-2-A
8	320-7224-A-3 (6850)	N/A	1.53 g	10.00 mL	5/30/14	22_Days	4		320-7224-A-3-A
9	320-7224-A-4 (6850)	N/A	1.56 g	10.00 mL	5/30/14	22_Days	4		320-7224-A-4-A
10	320-7224-A-5 (6850)	N/A	1.54 g	10.00 mL	5/30/14	22_Days	4		320-7224-A-5-A
11	320-7224-A-6 (6850)	N/A	1.53 g	10.00 mL	5/30/14	22_Days	4		320-7224-A-6-A
12	320-7224-A-7 (6850)	N/A	1.55 g	10.00 mL	5/30/14	22_Days	4		320-7224-A-7-A
13	320-7224-A-8 (6850)	N/A	1.52 g	10.00 mL	5/30/14	22_Days	4		320-7224-A-8-A
14	320-7224-A-9 (6850)	N/A	1.55 g	10.00 mL	5/30/14	22_Days	4		320-7224-A-9-A
15	320-7224-A-10 (6850)	N/A	1.56 g	10.00 mL	5/30/14	22_Days	4		320-7224-A-10-A

06/25/2014

Solid SW-846-3500 Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-41549 Analyst: Arauz, Horacio Batch Open: 5/1/2014 9:26:03AM

Method Code: 320-Shake_SonicBath-320 Batch End: 5-2-14 15:30

16	320-7224-A-11 (6850)	N/A	1.55 g	10.00 mL	5/30/14	22_Days	4	
17	320-7224-A-12 (6850)	N/A	1.50 g	10.00 mL	5/30/14	22_Days	4	
18	320-7224-A-13 (6850)	N/A	1.58 g	10.00 mL	5/30/14	22_Days	4	
19	320-7224-A-14 (6850)	N/A	1.53 g	10.00 mL	5/30/14	22_Days	4	
20	320-7224-A-15 (6850)	N/A	1.55 g	10.00 mL	5/30/14	22_Days	4	
21	320-7224-A-16 (6850)	N/A	1.53 g	10.00 mL	5/30/14	22_Days	4	

Batch Notes

Millipore Water Dispense Date 4-29-14

SPE Cartridge Lot # Dionex 140211

SPE Cartridge Type Ba/Ag/H

Filter Lot # .45um Millipore R4AA24407; .20um Millex R3BA65503

Blank Sand Lot # FISHER 135365

Person's name who witnessed reagent drop NGK

Batch Comment Pipetters EC15219; EC15131; INF 4515-055D ; DCM-0000067660

Solid SW-846-3500 Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-41549

Analyst: Arauz, Horacio

Batch Open: 5/1/2014 9:26:03AM

Method Code: 320-Shake_SonicBath-320

Batch End: 5-2-14 15:30

Comments

320-7224-A-1	Method Comments: Tissue-Extract 1.5 grams. MeCl2 cleanup of extracts . MS/MSD as assigned.
320-7224-A-1~MS	Method Comments: Tissue-Extract 1.5 grams. MeCl2 cleanup of extracts . MS/MSD as assigned.
320-7224-A-1~MSD	Method Comments: Tissue-Extract 1.5 grams. MeCl2 cleanup of extracts . MS/MSD as assigned.
320-7224-A-2	Method Comments: Tissue-Extract 1.5 grams. MeCl2 cleanup of extracts . MS/MSD as assigned.
320-7224-A-3	Method Comments: Tissue-Extract 1.5 grams. MeCl2 cleanup of extracts . MS/MSD as assigned.
320-7224-A-4	Method Comments: Tissue-Extract 1.5 grams. MeCl2 cleanup of extracts . MS/MSD as assigned.
320-7224-A-5	Method Comments: Tissue-Extract 1.5 grams. MeCl2 cleanup of extracts . MS/MSD as assigned.
320-7224-A-6	Method Comments: Tissue-Extract 1.5 grams. MeCl2 cleanup of extracts . MS/MSD as assigned.
320-7224-A-7	Method Comments: Tissue-Extract 1.5 grams. MeCl2 cleanup of extracts . MS/MSD as assigned.
320-7224-A-8	Method Comments: Tissue-Extract 1.5 grams. MeCl2 cleanup of extracts . MS/MSD as assigned.
320-7224-A-9	Method Comments: Tissue-Extract 1.5 grams. MeCl2 cleanup of extracts . MS/MSD as assigned.
320-7224-A-10	Method Comments: Tissue-Extract 1.5 grams. MeCl2 cleanup of extracts . MS/MSD as assigned.
320-7224-A-11	Method Comments: Tissue-Extract 1.5 grams. MeCl2 cleanup of extracts . MS/MSD as assigned.
320-7224-A-12	Method Comments: Tissue-Extract 1.5 grams. MeCl2 cleanup of extracts . MS/MSD as assigned.
320-7224-A-13	Method Comments: Tissue-Extract 1.5 grams. MeCl2 cleanup of extracts . MS/MSD as assigned.
320-7224-A-14	Method Comments: Tissue-Extract 1.5 grams. MeCl2 cleanup of extracts . MS/MSD as assigned.
320-7224-A-15	Method Comments: Tissue-Extract 1.5 grams. MeCl2 cleanup of extracts . MS/MSD as assigned.
320-7224-A-16	Method Comments: Tissue-Extract 1.5 grams. MeCl2 cleanup of extracts . MS/MSD as assigned.

Solid SW-846-3500 Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-41549

Method Code: 320-Shake_SonicBath-320

Analyst: Arauz, Horacio

Batch Open: 5/1/2014 9:26:03AM

Batch End: 5-2-14 15:30

Reagent Additions Worksheet

Lab ID	Reagent Code	Amount Added	Final Amount	By	Witness
MB 320-41549/1	LC6850IS_00024	100 uL	10.00 mL	HJA 5-01-14	NGL 5/01/14
LCS 320-41549/2	LC6850IS_00024	100 uL	10.00 mL		
LCS 320-41549/2	LC6850SP_00016	150 uL	10.00 mL		
INF 320-41549/3	LC6850IS_00024	100 uL	10.00 mL		
INF 320-41549/3	LC6850SP_00016	150 uL	10.00 mL		
320-7224-A-1	LC6850IS_00024	100 uL	10.00 mL		
320-7224-A-1 MS	LC6850IS_00024	100 uL	10.00 mL		
320-7224-A-1 MS	LC6850SP_00016	150 uL	10.00 mL		
320-7224-A-1 MSD	LC6850IS_00024	100 uL	10.00 mL		
320-7224-A-1 MSD	LC6850SP_00016	150 uL	10.00 mL		
320-7224-A-2	LC6850IS_00024	100 uL	10.00 mL		
320-7224-A-3	LC6850IS_00024	100 uL	10.00 mL		
320-7224-A-4	LC6850IS_00024	100 uL	10.00 mL		
320-7224-A-5	LC6850IS_00024	100 uL	10.00 mL		
320-7224-A-6	LC6850IS_00024	100 uCi	10.00 mL		
320-7224-A-7	LC6850IS_00024	100 uL	10.00 mL		
320-7224-A-8	LC6850IS_00024	100 uL	10.00 mL		
320-7224-A-9	LC6850IS_00024	100 uL	10.00 mL		

Solid SW-846-3500 Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-41549

Analyst: Arauz, Horacio

Batch Open: 5/1/2014 9:26:03AM

Method Code: 320-Shake_SonicBath-320

Batch End: 5-2-14 15:30

320-7224-A-10	LC6850IS_00024	100 uL	10.00 mL	HJA 5-01-14	NGK 5/01/14
320-7224-A-11	LC6850IS_00024	100 uL	10.00 mL		
320-7224-A-12	LC6850IS_00024	100 uL	10.00 mL		
320-7224-A-13	LC6850IS_00024	100 uL	10.00 mL		
320-7224-A-14	LC6850IS_00024	100 uL	10.00 mL		
320-7224-A-15	LC6850IS_00024	100 uL	10.00 mL		
320-7224-A-16	LC6850IS_00024	100 uL	10.00 mL		

Other Reagents:

Reagent	Amount/Units	Lot#:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Sacramento
Preparation Data Review Checklist

Preparation Batch Number(s): 320-41549 Test: 6850 - Tissue

Earliest Holding Time: Frozen samples

Sample List Tab	1st Level Reviewer	2nd Level Reviewer
Samples identified to the correct method	✓	✓
All necessary NCMs filed (including holding time)	✓	✓
Method/sample/login/QAS checked and correct	✓	✓
Worksheet Tab	**1st Level Reviewer**	**2nd Level Reviewer**
All samples properly preserved	NA	Na
Weights in anticipated range and not targeted	✓	✓
All additional test requirements performed, documented, and uploaded to TALS correctly (e.g. final amount, initial amount, turbidity, and Cl Check)	✓	✓
The pH is transcribed correctly in TALS	NA	Na
All additional information transcribed into TALS is correct and raw data is attached	✓	✓
Comments are transcribed correctly in TALS	✓	✓
Reagents Tab	**1st Level Reviewer**	**2nd Level Reviewer**
All necessary reagents not expired and entered into TALS	✓	✓
All spike amounts correct and added to necessary samples and QC	✓	✓
Batch Information	**1st Level Reviewer**	**2nd Level Reviewer**
Date and time accurate and entered into TALS correctly	✓	✓
All necessary 'batch information' complete and entered into TALS correctly	✓	✓

1st Level Reviewer: HJA Date: 5-02-14

2nd Level Reviewer: [signature] Date: 5/5/14

Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Sacramento
Preparation Data Review Checklist

Preparation Batch Number(s): 320-41554 Test: 6850-Tissues

Earliest Holding Time: Frozen

Sample List Tab	1st Level Reviewer	2nd Level Reviewer
Samples identified to the correct method	✓	✓
All necessary NCMs filed (including holding time)	✓	✓
Method/sample/login/QAS checked and correct	✓	✓
Worksheet Tab	**1st Level Reviewer**	**2nd Level Reviewer**
All samples properly preserved	NA	NA
Weights in anticipated range and not targeted	✓	✓
All additional test requirements performed, documented, and uploaded to TALS correctly (e.g. final amount, initial amount, turbidity, and Cl Check)	✓	✓
The pH is transcribed correctly in TALS	NA	NA
All additional information transcribed into TALS is correct and raw data is attached	✓	✓
Comments are transcribed correctly in TALS	✓	✓
Reagents Tab	**1st Level Reviewer**	**2nd Level Reviewer**
All necessary reagents not expired and entered into TALS	✓	✓
All spike amounts correct and added to necessary samples and QC	✓	✓
Batch Information	**1st Level Reviewer**	**2nd Level Reviewer**
Date and time accurate and entered into TALS correctly	✓	✓
All necessary 'batch information' complete and entered into TALS correctly	✓	✓

1st Level Reviewer: HJA Date: 5-5-14

2nd Level Reviewer: [signature] Date: 5/5/14

Comments:

Solid SW-846-3500 Analysis Sheet

(To Accompany Samples to Instruments)

CC

Batch Number: 320-41554

Method Code: 320-Shake_SonicBath-320

Analyst: Arauz, Horacio

Batch Open: 5/1/2014 10:11:44AM

Batch End: 5-5-14 09:58

Shake Extraction with Ultrasonic Bath Extraction

	Input Sample Lab ID (Analytical Method)	SDG	Initial Amount	Final Amount	Due Date	Analytical TAT	Dlv Rank	Comments	Output Sample Lab ID
1	MB~320-41554/1 N/A	N/A	3.00 g	10.00 mL	N/A	N/A	N/A		MB 320-41554/1-A
2	LCS~320-41554/2 N/A	N/A	3.00 g	10.00 mL	N/A	N/A	N/A		LCS 320-41554/2-A
3	INF~320-41554/3 N/A	N/A	3.00 g	10.00 mL	N/A	N/A	N/A		INF 320-41554/3-A
4	320-7224-A-17 (6850)	N/A	1.50 g	10.00 mL	5/30/14	22_Days	4		320-7224-A-17-A
5	320-7224-A-17~MS (6850)	N/A	1.52 g	10.00 mL	5/30/14	22_Days	4		320-7224-A-17-B MS
6	320-7224-A-17~MSD (6850)	N/A	1.57 g	10.00 mL	5/30/14	22_Days	4		320-7224-A-17-C MSD
7	320-7224-A-18 (6850)	N/A	1.49 g	10.00 mL	5/30/14	22_Days	4		320-7224-A-18-A
8	320-7224-A-19 (6850)	N/A	1.50 g	10.00 mL	5/30/14	22_Days	4		320-7224-A-19-A
9	320-7224-A-20 (6850)	N/A	1.55 g	10.00 mL	5/30/14	22_Days	4		320-7224-A-20-A
10	320-7224-A-21 (6850)	N/A	1.57 g	10.00 mL	5/30/14	22_Days	4		320-7224-A-21-A
11	320-7224-A-22 (6850)	N/A	1.54 g	10.00 mL	5/30/14	22_Days	4		320-7224-A-22-A
12	320-7224-A-23 (6850)	N/A	1.48 g	10.00 mL	5/30/14	22_Days	4		320-7224-A-23-A
13	320-7224-A-24 (6850)	N/A	1.49 g	10.00 mL	5/30/14	22_Days	4		320-7224-A-24-A
14	320-7224-A-25 (6850)	N/A	1.52 g	10.00 mL	5/30/14	22_Days	4		320-7224-A-25-A
15	320-7224-A-26 (6850)	N/A	1.52 g	10.00 mL	5/30/14	22_Days	4		320-7224-A-26-A

Solid SW-846-3500 Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-41554 Analyst: Arauz, Horacio Batch Open: 5/1/2014 10:11:44AM

Method Code: 320-Shake_SonicBath-320 Batch End: 5-5-14 9158

16	320-7224-A-27 (6850)	N/A	1.51 g	10.00 mL	5/30/14	22_Days	4	320-7224-A-27-A
17	320-7224-A-28 (6850)	N/A	1.52 g	10.00 mL	5/30/14	22_Days	4	320-7224-A-28-A
18	320-7224-A-29 (6850)	N/A	1.55 g	10.00 mL	5/30/14	22_Days	4	320-7224-A-29-A

Batch Notes

Millipore Water Dispense Date 4-29-14

SPE Cartridge Lot # Dionex 140212

SPE Cartridge Type Ba/Ag/H

Filter Lot # .45um Millipore R4AA24407; .20um Millex R3NA98716

Blank Sand Lot # FISHER 135365

Person's name who witnessed reagent drop NRG

Batch Comment Pipetters EC15219; EC15131; INF 4515-055D ; DCM-0000067660

Solid SW-846-3500 Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-41554 | Analyst: Arauz, Horacio | Batch Open: 5/1/2014 10:11:44AM

Method Code: 320-Shake_SonicBath-320 | Batch End: 5-5-14 9:58

Comments

320-7224-A-17	Method Comments: Tissue-Extract 1.5 grams. MeCl2 cleanup of extracts . MS/MSD as assigned.
320-7224-A-17~MS	Method Comments: Tissue-Extract 1.5 grams. MeCl2 cleanup of extracts . MS/MSD as assigned.
320-7224-A-17~MSD	Method Comments: Tissue-Extract 1.5 grams. MeCl2 cleanup of extracts . MS/MSD as assigned.
320-7224-A-18	Method Comments: Tissue-Extract 1.5 grams. MeCl2 cleanup of extracts . MS/MSD as assigned.
320-7224-A-19	Method Comments: Tissue-Extract 1.5 grams. MeCl2 cleanup of extracts . MS/MSD as assigned.
320-7224-A-20	Method Comments: Tissue-Extract 1.5 grams. MeCl2 cleanup of extracts . MS/MSD as assigned.
320-7224-A-21	Method Comments: Tissue-Extract 1.5 grams. MeCl2 cleanup of extracts . MS/MSD as assigned.
320-7224-A-22	Method Comments: Tissue-Extract 1.5 grams. MeCl2 cleanup of extracts . MS/MSD as assigned.
320-7224-A-23	Method Comments: Tissue-Extract 1.5 grams. MeCl2 cleanup of extracts . MS/MSD as assigned.
320-7224-A-24	Method Comments: Tissue-Extract 1.5 grams. MeCl2 cleanup of extracts . MS/MSD as assigned.
320-7224-A-25	Method Comments: Tissue-Extract 1.5 grams. MeCl2 cleanup of extracts . MS/MSD as assigned.
320-7224-A-26	Method Comments: Tissue-Extract 1.5 grams. MeCl2 cleanup of extracts . MS/MSD as assigned.
320-7224-A-27	Method Comments: Tissue-Extract 1.5 grams. MeCl2 cleanup of extracts . MS/MSD as assigned.
320-7224-A-28	Method Comments: Tissue-Extract 1.5 grams. MeCl2 cleanup of extracts . MS/MSD as assigned.
320-7224-A-29	Method Comments: Tissue-Extract 1.5 grams. MeCl2 cleanup of extracts . MS/MSD as assigned.

Solid SW-846-3500 Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-41554

Analyst: Arauz, Horacio

Batch Open: 5/1/2014 10:11:44AM

Method Code: 320-Shake_SonicBath-320

Batch End: 5-5-14 9:58

Reagent Additions Worksheet

Lab ID	Reagent Code	Amount Added	Final Amount	By	Witness
MB 320-41554/1	LC6850IS_00024	100 uL	10.00 mL	HJA 5-01-14	NGH 5/01/14
LCS 320-41554/2	LC6850IS_00024	100 uL	10.00 mL		
LCS 320-41554/2	LC6850SP_00016	150 uL	10.00 mL		
INF 320-41554/3	LC6850IS_00024	100 uL	10.00 mL		
INF 320-41554/3	LC6850SP_00016	150 uL	10.00 mL		
320-7224-A-17	LC6850IS_00024	100 uL	10.00 mL		
320-7224-A-17 MS	LC6850IS_00024	100 uL	10.00 mL		
320-7224-A-17 MS	LC6850SP_00016	150 uL	10.00 mL		
320-7224-A-17 MSD	LC6850IS_00024	100 uL	10.00 mL		
320-7224-A-17 MSD	LC6850SP_00016	150 uL	10.00 mL		
320-7224-A-18	LC6850IS_00024	100 uL	10.00 mL		
320-7224-A-19	LC6850IS_00024	100 uL	10.00 mL		
320-7224-A-20	LC6850IS_00024	100 uL	10.00 mL		
320-7224-A-21	LC6850IS_00024	100 uL	10.00 mL		
320-7224-A-22	LC6850IS_00024	100 uL	10.00 mL		
320-7224-A-23	LC6850IS_00024	100 uL	10.00 mL		
320-7224-A-24	LC6850IS_00024	100 uL	10.00 mL		
320-7224-A-25	LC6850IS_00024	100 uL	10.00 mL		

Solid SW-846-3500 Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-41554 Analyst: Arauz, Horacio Batch Open: 5/1/2014 10:11:44AM

Method Code: 320-Shake_SonicBath-320 Batch End: 5-5-14 9:58

320-7224-A-26	LC6850IS_00024	100 uL	10.00 mL	HJA 5-01-14	NGL 5/01/14
320-7224-A-27	LC6850IS_00024	100 uL	10.00 mL		
320-7224-A-28	LC6850IS_00024	100 uL	10.00 mL		
320-7224-A-29	LC6850IS_00024	100 uL	10.00 mL		

Other Reagents:

Reagent	Amount/Units	Lot#:

Filtration_14D Analysis Sheet

(To Accompany Samples to Instruments)

IL

Batch Number: 320-44884

Analyst: Reed, Jonathan E

Batch Open: 6/16/2014 6:08:51PM

Batch End: 6/16/2014 7:00:00PM

Sample Filtration

	Input Sample Lab ID (Analytical Method)	SDG	Matrix	Initial Amount	Final Amount	Due Date	Analytical TAT	Dlv Rank	Comments	Output Sample Lab ID
1	MB~320-44884/1 N/A	N/A		4.00 mL	4.00 mL	N/A	N/A	N/A		MB 320-44884/1-A
2	LCS~320-44884/2 N/A	N/A		4.00 mL	4.00 mL	N/A	N/A	N/A		LCS 320-44884/2-A
3	INF~320-44884/3 N/A	N/A		4.00 mL	4.00 mL	N/A	N/A	N/A		INF 320-44884/3-A
4	440-80728-G-1 (6850)	N/A	Water	4.00 mL	4.00 mL	6/18/14	4_Day_RUSH	2		440-80728-G-1-A
5	440-80728-G-1~MS (6850)	N/A	Water	4.00 mL	4.00 mL	6/18/14	4_Day_RUSH	2		440-80728-G-1-B MS
6	440-80728-G-1~MSD (6850)	N/A	Water	4.00 mL	4.00 mL	6/18/14	4_Day_RUSH	2		440-80728-G-1-C MSD
7	440-80728-G-2 (6850)	N/A	Water	4.00 mL	4.00 mL	6/18/14	4_Day_RUSH	2		440-80728-G-2-A
8	440-80728-G-3 (6850)	N/A	Water	4.00 mL	4.00 mL	6/18/14	4_Day_RUSH	2		440-80728-G-3-A

Filtration_14D Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-44884

Analyst: Reed, Jonathan E

Batch Open: 6/16/2014 6:08:51PM

Batch End: 6/16/2014 7:00:00PM

Batch Notes

Filter Lot # RABA25706 / R3NA98716

Batch Comment INF: INF_00001 / DIONEX: 140213

Comments

Filtration_14D Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-44884 | Analyst: Reed, Jonathan E | Batch Open: 6/16/2014 6:08:51PM

Batch End: 6/16/14 7:00 PM

Reagent Additions Worksheet

Lab ID	Reagent Code	Amount Added	Final Amount	By	Witness
MB 320-44884/1	LC6850IS_00026	40.00 uL	4.00 mL	6/16/14	6/16/14
LCS 320-44884/2	LC6850IS_00026	40.00 uL	4.00 mL		
LCS 320-44884/2	LC6850SP_00019	20.00 uL	4.00 mL		
INF 320-44884/3	LC6850IS_00026	40.00 uL	4.00 mL		
INF 320-44884/3	LC6850SP_00019	20.00 uL	4.00 mL		
440-80728-G-1	LC6850IS_00026	40.00 uL	4.00 mL		
440-80728-G-1 MS	LC6850IS_00026	40.00 uL	4.00 mL		
440-80728-G-1 MS	LC6850SP_00019	20.00 uL	4.00 mL		
440-80728-G-1 MSD	LC6850IS_00026	40.00 uL	4.00 mL		
440-80728-G-1 MSD	LC6850SP_00019	20.00 uL	4.00 mL		
440-80728-G-2	LC6850IS_00026	40.00 uL	4.00 mL		
440-80728-G-2	LC6850SP_00019	~~20.00 uL~~ HSM 6-17-14	4.00 mL		
440-80728-G-3	LC6850IS_00026	40.00 uL	4.00 mL		

Filtration_14D Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-44884 Analyst: Reed, Jonathan E Batch Open: 6/16/2014 6:08:51PM

Batch End: 6/16/2014 7:00:00PM

Other Reagents:

Reagent	Amount/Units	Lot#:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Sacramento
Preparation Data Review Checklist

Preparation Batch Number(s): 320-44884 Test: 6850

Earliest Holding Time: 6-25-14

Sample List Tab	1st Level Reviewer	2nd Level Reviewer
Samples identified to the correct method	✓	✓
All necessary NCMs filed (including holding time)	NA	NA
Method/sample/login/QAS checked and correct	✓	✓
Worksheet Tab	**1st Level Reviewer**	**2nd Level Reviewer**
All samples properly preserved	NA	NA
Weights in anticipated range and not targeted	✓	✓
All additional test requirements performed, documented, and uploaded to TALS correctly (e.g. final amount, initial amount, turbidity, and Cl Check)	✓	✓
The pH is transcribed correctly in TALS	NA	NA
All additional information transcribed into TALS is correct and raw data is attached	✓	✓
Comments are transcribed correctly in TALS	✓	✓
Reagents Tab	**1st Level Reviewer**	**2nd Level Reviewer**
All necessary reagents not expired and entered into TALS	✓	✓
All spike amounts correct and added to necessary samples and QC	✓	✓
Batch Information	**1st Level Reviewer**	**2nd Level Reviewer**
Date and time accurate and entered into TALS correctly	✓	✓
All necessary 'batch information' complete and entered into TALS correctly	✓	✓

1st Level Reviewer: _____ Date: _____

2nd Level Reviewer: HJA Date: 6-17-14

Comments: _____

Filtration_14D Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-45203

Analyst: Reed, Jonathan E

Batch Open: 6/19/2014 6:53:57PM

Batch End: 6/19/2014 7:50:00PM

Sample Filtration

	Input Sample Lab ID (Analytical Method)	SDG	Matrix	Initial Amount	Final Amount	Due Date	Analytical TAT	Dlv Rank	Comments	Output Sample Lab ID
1	MB~320-45203/1 N/A	N/A		4.00 mL	4.00 mL	N/A	N/A	N/A		MB 320-45203/1-A
2	LCS~320-45203/2 N/A	N/A		4.00 mL	4.00 mL	N/A	N/A	N/A		LCS 320-45203/2-A
3	INF~320-45203/3 N/A	N/A		4.00 mL	4.00 mL	N/A	N/A	N/A		INF 320-45203/3-A
4	440-80728-G-2 (6850)	N/A	Water	0.013 mL	4.00 mL	6/26/14	10_Days	2		440-80728-G-2-B
5	440-80728-G-2~MS (6850)	N/A	Water	0.013 mL	4.00 mL	6/26/14	10_Days	2		440-80728-G-2-C MS
6	440-80728-G-2~MSD (6850)	N/A	Water	0.013 mL	4.00 mL	6/26/14	10_Days	2		440-80728-G-2-D MSD

Filtration_14D Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-45203

Analyst: Reed, Jonathan E

Batch Open: 6/19/2014 6:53:57PM

Batch End: 6/19/2014 7:50:00PM

Batch Notes

Filter Lot # RABA25706 / R3NA98716

Batch Comment DIONEX: 140213

Comments

Filtration_14D Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-45203

Analyst: Reed, Jonathan E

Batch Open: 6/19/2014 6:53:57PM

Batch End: 6/19/14 7:50 PM

Reagent Additions Worksheet

Lab ID	Reagent Code	Amount Added	Final Amount	By	Witness
MB 320-45203/1	LC6850IS_00026	40.00 uL	4.00 mL	6/19/14	ALH 6/19/14
LCS 320-45203/2	LC6850IS_00026	40.00 uL	4.00 mL		
LCS 320-45203/2	LC6850SP_00019	20.00 uL	4.00 mL		
INF 320-45203/3	LC6850IS_00026	40.00 uL	4.00 mL		
INF 320-45203/3	LC6850SP_00019	20.00 uL	4.00 mL		
440-80728-G-2	LC6850IS_00026	40.00 uL	4.00 mL		
440-80728-G-2 MS	LC6850IS_00026	40.00 uL	4.00 mL		
440-80728-G-2 MS	LC6850SP_00019	20.00 uL	4.00 mL		
440-80728-G-2 MSD	LC6850IS_00026	40.00 uL	4.00 mL		
440-80728-G-2 MSD	LC6850SP_00019	20.00 uL	4.00 mL		

Filtration_14D Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-45203

Analyst: Reed, Jonathan E

Batch Open: 6/19/2014 6:53:57PM

Batch End: 6/19/2014 7:50:00PM

Other Reagents:

Reagent	Amount/Units	Lot#:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Sacramento
Preparation Data Review Checklist

Preparation Batch Number(s): 45203 Test: 6850

Earliest Holding Time: 6/25/14

Sample List Tab	1st Level Reviewer	2nd Level Reviewer
Samples identified to the correct method	✓	✓
All necessary NCMs filed (including holding time)	NA	✓
Method/sample/login/QAS checked and correct	✓	✓
Worksheet Tab	**1st Level Reviewer**	**2nd Level Reviewer**
All samples properly preserved	NA	NA
Weights in anticipated range and not targeted	✓	✓
All additional test requirements performed, documented, and uploaded to TALS correctly (e.g. final amount, initial amount, turbidity, and Cl Check)	✓	✓
The pH is transcribed correctly in TALS	NA	NA
All additional information transcribed into TALS is correct and raw data is attached	✓	✓
Comments are transcribed correctly in TALS	✓	✓
Reagents Tab	**1st Level Reviewer**	**2nd Level Reviewer**
All necessary reagents not expired and entered into TALS	✓	✓
All spike amounts correct and added to necessary samples and QC	✓	✓
Batch Information	**1st Level Reviewer**	**2nd Level Reviewer**
Date and time accurate and entered into TALS correctly	✓	✓
All necessary 'batch information' complete and entered into TALS correctly	✓	✓

1st Level Reviewer: [signature] Date: 6/19/14

2nd Level Reviewer: AVM Date: 6/20/14

Comments:

Shipping and Receiving Documents

ARDL, Inc

P.O. Box 1566, 400 Aviation Drive, Mount Vernon, Illinois 62864
Phone (618) 244-3235, Fax (618) 244-1149

320-7224 Chain of Custody

IN OF CUSTODY RECORD

Project
ARDL / Makau Military Reservation Oahu, Hawaii Project

SAMPLERS (Signature)

Test America

SAMPLE NUMBER	DATE	TIME	Comp	Grab	# of Containers	Perchlorate via EPA Method 6850	Remarks or Sample Location	PRESERVATION: ICED	PRESERVATION: Specify Chemicals added and final pH if known
MAK109O	1/31/2014	10:45		x	1	x	Octopus	x	
MAK110O	3/28/2014	8:38		x	1	x	Octopus	x	
MAK111O	3/28/2014	9:20		x	1	x	Octopus	x	
MAK112O	3/28/2014	10:00		x	1	x	Octopus	x	
MAK113O	3/28/2014	10:35		x	1	x	Octopus	x	
MAK114O	3/28/2014	11:32		x	1	x	Octopus	x	
MAK115O	3/28/2014	13:01		x	1	x	Octopus	x	
MAK116O	3/28/2014	14:58		x	1	x	Octopus	x	
MAK117O	3/28/2014	16:43		x	1	x	Octopus	x	
MAK118O	3/27/2014	8:50		x	1	x	Octopus	x	
MAK119O	3/27/2014	9:20		x	1	x	Octopus	x	
MAK120O	3/27/2014	11:23		x	1	x	Octopus	x	
MAK121O	3/27/2014	12:05		x	1	x	Octopus	x	
MAK122O	3/27/2014	13:05		x	1	x	Octopus	x	
MAK123O	3/27/2014	15:08		x	1	x	Octopus	x	
MAK124O	3/28/2014	12:25		x	1	x	Octopus	x	
MAK130L	3/27/2014	8:20		x	1	x	Limu (Sea Weed)	x	
MAK132L	3/28/2014	8:38		x	1	x	Limu (Sea Weed)	x	
MAK134L	3/28/2014	9:20		x	1	x	Limu (Sea Weed)	x	
MAK135L	3/28/2014	10:00		x	1	x	Limu (Sea Weed)	x	
MAK138L	3/28/2014	11:32		x	1	x	Limu (Sea Weed)	x	

Relinquished by: (Signature)	Date	Time	Relinquished by: (Signature)
[signature]	4-28	1600	Received: Kim Nilsen 4/29/14 920
Relinquished by: (Signature)	Date	Time	Relinquished by: (Signature)
Received for Laboratory by: (Signature)	Date	Time	Shipping Ticket No.

REMARKS / SPECIAL INSTRUCTIONS:

Project Samples. Please treat each matrix separately.

Please send level 4 hardcopy report and excel edd to: Dean Dickerson, c/o ARDL, Inc. 400 Aviation Drive, Mount Vernon, IL 62864. Email questons to ddickerson@ardlinc.com.

-1.7°C

ARDL, Inc

P.O. Box 1566, 400 Aviation Drive, Mount Vernon, Illinois 62864
Phone (618) 244-3235, Fax (618) 244-1149

CHAIN OF CUSTODY RECORD

Project
ARDL / Makau Military Reservation Oahu, Hawaii Project

SAMPLERS (Signature)

Test America

SAMPLE NUMBER	DATE	TIME	Comp	Grab	# of Containers	Perchlorate via EPA Method 6850	Remarks or Sample Location	PRESERVATION: ICED	PRESERVATION: Specify Chemicals added and final pH if known
MAK121C	3/28/2014	10:35		x	1	x	Sea Cucumber	x	
MAK122C	3/28/2014	13:01		X	1	x	Sea Cucumber	x	
MAK123C	3/28/2014	14:06		x	1	x	Sea Cucumber	x	
MAK124C	3/28/2014	15:20		x	1	x	Sea Cucumber	x	
MAK125C	3/28/2014	15:30		x	1	x	Sea Cucumber	x	
MAK126C	3/28/2014	15:47		x	1	x	Sea Cucumber	x	
MAK127C	3/28/2014	16:10		x	1	x	Sea Cucumber	x	
MAK128C	3/28/2014	16:43		x	1	x	Sea Cucumber	x	

Relinquished by: (Signature)	Date	Time	Relinquished by: (Signature)
[signature]	4-28	1600	Received: Kim Nelson 4/29/14 930
Relinquished by: (Signature)	Date	Time	Relinquished by: (Signature)
Received for Laboratory by. (Signature)	Date	Time	Shipping Ticket No

REMARKS / SPECIAL INSTRUCTIONS:

Project Samples. Please treat each matrix separately.

Please send level 4 hardcopy report and excel edd to: Dean Dickerson, c/o ARDL, Inc. 400 Aviation Drive, Mount Vernon, IL 62864. Email questons to ddickerson@ardlinc.com.

-1.7°C

Login Sample Receipt Checklist

Client: ARDL, Inc

Job Number: 320-7224-2

Login Number: 7224

List Source: TestAmerica Sacramento

List Number: 1

Creator: Nelson, Kym D

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	